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Subhead	Ruth Yeoman asks, can we create more meaningful work?
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In *Art and Socialism*, William Morris remarks that if only “the wonderful machines” had been placed under the control of “just and foreseeing men” they would have rid us of repulsive labour and restored to us the pleasures of living. But instead, we have been subdued under the machine itself, making work an experience of oppressive degradation. Today, the machines have become yet more wonderful, promising an exponential increase of productivity and human freedom. In a recent House of Commons report on artificial intelligence, Jo Swinson, MP said, “In our everyday lives, new AI technologies are streamlining menial tasks, giving us more time in the day for meaningful work, for leisure or for our family and friends.” She went on to add that the government should adopt four ethical requirements for guiding policy making in this area – transparency, accountability, privacy and fairness. Even as a basis for thinking about a future in which income is generated from the ownership of capital or a citizen’s income rather than employment, these ethical requirements represent a low normative bar. They are far from describing all the relevant moral dimensions which wise policy makers – both women and men – will need to consider when reflecting upon how new technologies may help us achieve more meaningful work and lives. These include, for example, the disproportionate burden borne by some individuals and their communities who are required to pay the price of an aggregate increase in wealth and welfare.

Against this backdrop, I examine the claim that work ought to be meaningful because meaningful work is a fundamental human need, providing us with necessary goods of freedom, autonomy and dignity. I shall set aside concerns related to rights for robots and existential risks to humankind, and concentrate upon those anxieties which cluster around incorporating new technologies into collective action. I take jobs to be a subset of the much larger pool of complex work needed to create, repair and sustain the human world. Whilst recognising that new types of formal jobs may eventually be distilled from this dynamically evolving resource of work, I am interested in the philosophical dimensions of the interaction of new technologies with human work in general, for the purpose of guiding us to morally worthy work which is emotionally engaging – in other words, can we create more meaningful work? In so doing, I shall conclude that the future of meaningfulness itself, as a moral value,

will depend upon active crafting of this general resource of work so that it becomes generative of new sources of positive meanings.

The philosophical issue at hand is the form of morally desirable integration of new technologies with human action which will promote the life-value of humans. Frey and Osborne in *The Future of Employment* calculate that although 50% of tasks which people are paid to do may vanish under automation, only 5% of occupations can be fully automated. David Autor in “Why Are There Still So Many Jobs?” shows us that complementarities between humans and machines are at least as common as substitution of humans by machines. This is because the difficulty of substituting for creativity, flexibility and judgement raises the value of workers who can supply those attributes. Such complex capabilities are not easy to inculcate. Although aggregate and long term human well-being may increase due to the increasing productivity and wealth-creating capacities of the machines, individuals in the transitioning phase will suffer harm, including lifetime earning loss, and poor health and well-being outcomes. These harms extend to what Anne Case and Angus Deaton call “deaths of despair”, where a loss of meaning in life makes people vulnerable to alcohol and drug abuse. Such harms may multiply if we fail to identify the morally relevant consequences of incorporating machines into human collective action. In one sense, this problem is far from new. The exploitation of workers and the dehumanisation of their work occur in every economic cycle, and although we have remedies to hand in the form of law, regulation and a corpus of enlightened management practices, we often fail to apply them.

Unfortunately, in searching for normative resources to tackle moral concerns, we find that work has not been a central concern for philosophy. Philosophers dismiss work as a norm-free zone from which truly human action is absent. This is not to say that no philosophers have considered work or commented upon the interaction between work and machines. Notably, Aristotle forbade work for those seeking the contemplative life, the highest form of human flourishing. Given the dependence of contemplatives upon others to do work, the possibility of *Eudaimonia* for all rested upon some remote future of automation. In his *Politics*, Aristotle says, “If, in like manner, the shuttle would weave and the plectrum touch the lyre without a hand to guide them, chief workmen would not want servants, nor masters slaves.” Now, automation is at hand, reaching into all the nooks and crannies of the human world, and surfacing other worries. Marx in his tantalising *Fragment on Machines* envisions the culminating moment of the labour process to be total automation

“But, once adopted into the production process of capital, the means of labour passes through different metamorphoses, whose culmination is the machine, or rather, an automatic system of machinery (system of machinery: the automatic one is merely its most complete, most adequate form, and alone transforms machinery into a system), set in motion by an automaton, a moving power that moves itself; this automaton consisting of numerous mechanical and intellectual organs, so that the workers themselves are cast merely as its conscious linkages.”

There is no outside of the machine. Anxieties of total automation are expressed in the works of Hannah Arendt. Opposing Marx’s primacy of labour, Arendt in *The Human Condition* made the distinction between labour, work and action. Labour produces things for consumption and work produces things for use. The realm of *animal laborans* is where the biological processes of the human body – of birth, decay and death – are managed. It is characterised by repetitive, ceaseless activity which produces consumable objects – it is the realm of the perishable, the ephemeral and the impermanent. The realm of *homo faber* enables things to be produced through repetitive processes of fabrication which have a

definite beginning and end. These are durable and permanent objects which, unlike the end results of labour, are produced to be used or enjoyed, not to be consumed. They have an existence beyond their makers; they break out of natural biological processes, and produce a stable world. The usefulness and enjoyment of things, however, encourages instrumentalism, which Arendt says leads to “a growing meaninglessness where every end is transformed into a means.” Total automation eliminates meaningfulness from the realm of *homo faber*, which has become colonised by the realm of *animal laborans*.

For Arendt, action is the only sphere in which it is possible to be fully human and fully free. Despite this, Arendt characterises the realm of action as lacking the means to institute a politics aimed at identifying practical purposes and collective action. As a result, Arendt cannot see where programmes for emancipatory change are going to come from. At this point, the reflections of Simone Weil upon the interaction between machines and collective action in factory work are useful. Weil argues that we become human through collective action, which takes place in a moral order incorporating people, machines, technology and organisation. We enter into collective action because our unavoidable human condition is one of inter-dependency and limited self-sufficiency. We need one another for our survival and our flourishing. Self-development depends upon inclusion in a socially ordered world which has an understandable past and future – a world which requires us to exercise complex capabilities and to solve the problems presented to us.

Unusually for a philosopher, Weil had direct personal experience of the harms imposed by the early twentieth-century factory system. She experienced the erasure of workers as human beings – oppressed by repetitive, dull and pointless work, treated as objects or instruments and erased as human beings. She felt such arbitrary subjection to be a form of radical destruction which fundamentally affected her ability to reason about her status as a person. In her essay on *Factory Work*, Weil talks of “perpetual recoil into the present, as the worker, in self-protection, tries to avoid thinking about the future” and the increase of anxiety from having to be constantly ready for the unexpected, even in the midst of monotonous action. This leads to alienation which Weil describes as a relationship of perpetual dependence where the worker loses control over his thoughts and feelings and actions.

But Weil does not leave matters thus – she goes on to identify the “joys of work”, of a “life spent among machines”, where “any series of movements that participates of the beautiful and is accomplished with no loss of dignity, implies moments of pause, as short-lived as lightning flashes, but that are the very stuff of rhythm and give the beholder, even across extremes of rapidity, the impression of leisureliness”. She advances the concept of attention to overcome alienation in collective action. In *Oppression and Liberty*, Weil says that such work presents workers with the possibility of a “completely free life”, or “one wherein all real difficulties present themselves as kinds of problems, wherein all successes were as solutions carried into actions”. She observes moments of true liberty in collective action which unites thought and action, and satisfies our needs for belonging and sociality. Weil’s vision of free work encompasses a sense of rootedness, of being at home in the world, of usefulness, of imaginative horizons and of ownership. She says “as long as working men are homeless in their places of work, they will never truly feel at home in their country, never be responsible members of society”. Feeling at home must extend to sharing in the determination of the rules governing the societies in which we live and work.

Free action requires new habits. In *Waiting for God*, Weil offers us “attention” which makes us human by fostering developmental processes of knowing. Attention involves “waiting”, rather than “searching” and coming to an understanding of the object with our “whole selves”. This is an indirect method of knowing the object, by gaining some distance from the object, and avoiding excessive attachment to the object. Attention is particularly

important when caring for others. Weil says that giving attention to someone who is suffering is “a very rare and difficult thing; it is almost a miracle”. Weil adds that love of our neighbour means saying to the other: “What are you going through?” It is a recognition that the sufferer exists, not only as a unit in a collection, or a specimen from the social category labelled “unfortunate”, but as a human being, exactly like us. The habit of attention is a service we provide to others, helping them experience their dignity, and it is a service returned to us by others. Acts of attention which focus on the other, and which transcend the self, are a way of re-finding our lives to be meaningful. Fostering the habit of attention is just one practice of care which may be adopted into the dynamic resource of work as a way of creating human life-value, where care extends to all creatures and things of intelligence and feeling. Attentive care is generative of new sources of positive meaning which can be taken up into the meaningfulness of lives through collection action and deliberation upon what matters.

Meaningfulness is constructed when we appropriate to our lives objects (including for example, ideas, activities, people, animals, places and organisations) which are independently valuable and towards which we foster positive emotional connections by caring about and contributing to the good for such objects. Notably, Susan Wolf in *Meaning in Life and Why it Matters* describes a hybrid account of meaningfulness as a value, where meaningfulness arises when “subjective attraction meets objective attractiveness”. The experience of meaningfulness is more likely to occur when a person becomes actively connected to a worthy object; that is, something or someone of value. In *Meaningful Work and Workplace Democracy*, I argue that our interactions with valuable objects promote meaningfulness when they are structured by a capabilities component and a status component. Drawing from Amartya Sen and Martha Nussbaum, the capabilities component is realised through the formation of capabilities for judging the value or worth of things and forging affective attachments to them. The status component grounds our entitlement to be recognised as equal co-authorities in meaning-making. Endowed with this status, we learn to see ourselves as the authors of our actions and entitled to speak up in public deliberation concerning our interpretations of the value, significance and meaning of such actions. Such capabilities and status enable us to craft meaningfulness through participation in collective judgements concerning the value of objects, and by discharging our responsibilities of care towards things which matter.

Our capacity to experience meaningfulness is increased by having access to a diversity of positive meaning sources. In the new world of humans and machines, we will need to bring to public prominence undervalued and latent sources of meaning such as care and stewardship. Engaging in caring practices generates the productive relations and affective orientations needed to overcome alienation by restoring our sense of being authors of morally legitimate actions which promote the good for valuable objects. Victor Frankl makes this point in his chapter *Logos, Paradox, and the Search for Meaning*:

“Human behaviour is really human to the extent to which it means acting into the world. This, in turn, implies being motivated by the world. In fact, the world toward which a human being transcends itself is a world replete with meanings that constitute reasons to act and full as well of other human beings to love”.

Harry Frankfurt in *The Importance of What We Care About* argues that loving is a powerful source of universal meaning. He says “locating the source of meaning in the activity of loving renders opportunities for meaningful life much more readily accessible”. But for care to be a generative source of meaning in collective action, we will need to create new kinds of human work with a core emphasis upon building morally valuable relationships

between intelligent and feeling beings who contribute to building the human world – specifically, ethical, relational and complexity work. *Ethical work* translates moral values into practices; *relational work* orchestrates joint efforts by building trusting, mutually inter-dependent relationships; and *complexity work* uses knowledge and technology to generate innovations in operating practices.

The machines will become wonderful only if we invest more effort into fostering the complex capabilities of all our citizens, endowing them with the joint responsibility for creating new sources of positive meanings which they may use to craft meaningful lives. The wise judges who perfect the machines must be all of us. Finally, the future of meaningfulness may reside in sharing meaningfulness with other beings in a human-machine world where there is common pursuit and a shared destiny. For the machines as for humans, there is as yet only one world.