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Luddites

> *Luddites* Highly trained individuals whose careers were destroyed by technological progress. This progress was treated as inevitable and uncontrollable. The Luddites therefore occupied the only remaining intellectual position, which consisted of rejecting technological progress. - John Ralston Saul

I have often been called a Luddite, though I do not fear, nor do I despise, technology. Quite to the contrary, I embrace a whole slew of technologies that I believe are beneficial to society. I do not however, embrace all technology, nor do I believe that all technological progress is inevitable. It is for this reason that I have been labeled a Luddite. This paper is a defense of Luddism. I will argue that the problems that a technologically dominated society creates cannot be solved by the standard non-Luddite approaches; I will then show how the Luddite approach can effectively deal with these problems. I will consider several objections to the Luddite position, and finally consider some ways of moving towards a Luddite society and some of the consequences of such a move.

To begin this discussion I will first define what I mean by technology and Luddism. Defining technology is a particularly difficult task, as there exists some disagreement as to what should be meant by the word. Technology is commonly thought of as the tools developed and employed by humans. I believe that this definition is insufficient. To limit our conception to tools only, and ignore the body of knowledge behind them and the activities used in creating them seems to ignore vital aspects of what technology is. Further, to think of technology as only a set of tools can lead to the perception that technology is culturally and morally neutral. In his book *The Culture of Technology*, Arnold Pacey points out that technology is not in fact neutral at all, so long as one looks beyond the tool itself to see "the web of human activities surrounding the machine." (Pacey 3) We must therefore expand the traditional definition of technology to properly understand all aspects of it. Pacey, along with Ursula Franklin, suggests that we think of technology not only as a set of tools, but also as practice (Pacey 4, Franklin 6). In so doing, we will be able not only to perceive the tools themselves, but also their impact on human organization, culture, and well-being. It is from these sources that I draw my definition of technology. Technology should be thought of as practice as well as tools. Technology is not culturally or morally neutral, as it is surrounded by the web of humanity and can have profound effects on this web. Further, technology is an essential aspect of humanity, since technology is found in all human cultures, irrespective of geographic locale or historical period.

The second term that must be defined is Luddism. In order to understand the term, we must first understand who the Luddites were historically. The Luddites were textile workers in early 19th century England who had their way of life destroyed by the introduction of large-scale textile factories. These workers, faced with losing the life that they had built for themselves, petitioned parliament to no avail. Eventually they took more drastic measures and began to destroy the machines that were the source of their problems. The Luddite movement was well-organized and lasted for more than a year before the British army quashed it. What is most important to realize about the Luddites is that they were not technophobes, they were people reacting to a very real threat to their way of life. They did not target all technology, but rather those technologies that would have a negative effect on their lives.

As mentioned above, modern conceptions of Luddism tend to link it with technophobia. It seems

likely that this is still largely due to the smear campaign launched against the Luddites back in the 19th century, which painted them as idiots afraid of change. Yet a quick look at the real history of the Luddite movement reveals that it was well thought out and that it was not change itself that the Luddites were afraid of, but rather the negative effects that the change would bring about. The Luddites predicted quite accurately that the factories would destroy their largely independent and self-sufficient lifestyles and so while they were acting partly out of fear, that fear was by no means irrational.

In this paper, I will use the term Luddism to describe the political stance taken by the rebellious textile workers in the 19th century. The primary aspect of Luddism is the belief that technological advancement is neither inevitable nor uncontrollable. Not all technology is good technology and the Luddites believed that we should be able to choose whether certain technologies should be allowed or even developed.

To begin my defense of Luddism, I will outline what I believe to be the problem that gives birth to the Luddite position. As described above, the Luddites did not rebel against all technology, but rather targeted particular factory equipment that they believed would lead to a deterioration in their quality of life. So what was the difference between the traditional technologies used by the Luddite frame knitters and handling weavers and the technologies introduced by the industrial revolution? Ursula Franklin identifies two categories of technology that can be useful in illuminating this difference. In her book, *The Real World of Technology*, she makes the distinction between holistic technologies and prescriptive technologies. Holistic technologies are those technologies that allow the craftsperson or worker control over all aspects of their creation from beginning to end. Prescriptive technologies create divisions of labor based on identifiable steps of production. Each different step is carried out by a worker, or group of workers, specialized in that particular step. Also essential in a prescriptive model is a manager who is in control of the whole process. It is important to note that Franklin makes her distinction based on how the work is being done, not what is being worked on (Franklin 10-12).

The Luddites were users of what Franklin labels holistic technologies. They worked in their homes at their own pace and were responsible for the creation of their products from start to finish. On the other hand, the factories that came to England during the industrial revolution exemplified the prescriptive model. The problem that the Luddites faced was that they were being forced to abandon their traditional holistic technologies and to be part of the prescriptive model of the English textile factories. To understand the fear, frustration and anger of the Luddites at being forced into this new model, we must examine the social implications of prescriptive technology, particularly when it is paired with capitalism.[1]

By their very nature, prescriptive technologies strip everyone, with the exception of the top managers, of any significant autonomy. In order to create things of great complexity, each individual worker must adhere strictly to the prescribed procedure. In a classical orchestra for example, the cello players cannot spontaneously begin improvising if the piece of music is to sound good -- they must adhere strictly to the procedures laid out by the composer and the conductor. Further, when a product is finished, an individual who worked on it will have contributed to only one part of it, rather than in a holistic model where they will have created the whole product themselves. To again use the example of an orchestra, each member, even the composer, is only a contributor as opposed to an individual who composes her/his own piece of music and performs it her/himself. Being a member of a prescriptive process also usually removes one's freedom to choose one's hours or workplace. One certainly can't do factory work at home, nor can one do it when the factory is closed. While the end product of a prescriptive system may be extraordinarily complex and completely out of reach of a traditional holistic system, working within such a prescriptive system does not allow a

worker much freedom.

When paired with capitalism, prescriptive models take on several more characteristics. Capitalism in a prescriptive system leads to a loss of security for workers. When one is self-employed, one cannot be fired or laid off. Yet when working within a prescriptive framework subject to 'market forces,' one's job can disappear instantly as a result of an unhappy manager or a temporary slump in the economy. Further, when one works for another individual in a capitalist system, one is never paid as much as if one was working for one's self. If one is self-employed, then the profit made by one's own business goes to one's self. If one works for another individual, however, the profit from one's work goes to that individual.

Now that we can see some of the social implications of prescriptive technology in a capitalist setting, we can begin to understand why the changeover to these technologies would have had such an impact on the lives of the Luddites. The Luddites formed a rising middle class of craftspeople. They worked at home and were able to synthesize their work with the rest of their lives. Individual knitters and weavers could not compete against mass produced goods, so many of them found themselves having to seek work in the factories; those who didn't found that there was a rapidly diminishing market for their wares. Factory work meant being locked up (literally) for most of the day. The mixed labor that had been practiced before became impossible. Individuals who once had been self-employed now found themselves with shaky job security. People were forced to create goods of lower quality and were paid less for them. The effect on the Luddites' lives was devastating.

It should now be clear how it is that the introduction of these new technologies created the climate for Luddism to develop. The Luddites knew that the factories would destroy their way of life. They knew this because the very nature of factory technology is to eliminate home-based, individual manufacture. Textile factories are built to make the owners of the factories money. They make money by using machines to increase the productivity of each worker (though not necessarily the quality produced by these workers), thereby producing more units with the same number of people, or, more often, more units with less people. The goods produced by the factory can be sold for less money than goods produced by individual craftspeople, since the cost of labor is less (since fewer people are employed in the making of the same number of goods). This ability to undersell individual craftspeople tends to lead to the collapse of small business, since few individuals are willing to pay more for similar goods.[2] In order to resist this process, as John Ralston Saul puts it, they "occupied the only remaining intellectual position, which consisted of rejecting technological progress" (Saul 195).

Considering all this, it becomes even more clear that what the Luddites were fighting was not technology, but technology's effect on their quality of life. Interestingly, improved quality of life is exactly what we are told technological progress will bring about. I often hear from people that technological advancement has brought us all that we have now, that to oppose development of certain types of technology is to be against progress. Yet progress comes from far more than just technology. The link between technological advancement and improved quality of life can be a real one, but it is not a necessary link, nor is it exclusive. Technological advancement is not the only thing that improves quality of life; indeed, it is questionable whether it is even the major contributor. Modern attempts to measure quality of life largely focus on factors that can be affected by technological development: water quality, life expectancy, medical care, material possessions, and so on. Yet it is undeniable that there are things that contribute to our happiness and quality of life that are not technological in nature. Technology does not make us free from political injustice; it does not free us from racism, sexism, or any other form of discrimination. Technology cannot provide us with spiritual fulfillment (at least it doesn't seem to be able to). Technology cannot make people behave morally towards us.[3] Technology does not give us better governments. What the

Luddites faced was a technological ideology that did not understand that there is more to the quality of one's life than can be measured by a technological yardstick, backed by an elite with a healthy profit motive.

I have shown what I believe to be the main factors that led to the conception of the Luddite stance, but the question remains whether these factors are still present today to justify the adoption of a modern Luddite position. To answer this question, I need only look around myself, and at my own life. While conditions in factories have gotten better in the first world, people are still taken away from their homes by their jobs for most of the day. Labor is still alienating, and most people still lack any autonomy in their jobs. My own working history has included some truly dismal employment in prescriptive environments. New technologies continue to be developed that make people 'obsolete.' The problems that the Luddites faced are still here; the difference for us is that we were born in to them.

Now that I have identified some of the problems that unrestricted technological advancement can create, I will look at both the typical response and the Luddite response to these problems. There are two standard, non-Luddite responses to the above problems that I will refer to as the engineering approach and the control approach. The engineering approach views these problems as design flaws present in the technology. Problems can be fixed with improvements to the design technologies or with the introduction of techno fixes. This approach can be seen in many sectors of the modern world. One common example of the engineering approach to a technological problem is the methods used to solve various problems surrounding automobiles in cities. Cars cause any number of problems in cities from traffic jams to fatal accidents to extreme air pollution. The engineering model sees all of these problems as nothing more than small design problems. To solve these problems, this approach suggests rearranging city design to create larger traffic arteries, lowering speed limits, instituting mandatory seat-belt laws, and setting emissions standards. These measures, we are told, will solve the problem.

The engineering approach is flawed for two reasons. First, the 'design flaws' often seem to turn out to be far more major than can be fixed with even radical design adjustments. Take the example of cars in a city. Expanded traffic arteries alleviate some of the stress, but the many streets are still clogged at rush hour. Fatal accidents still occur every day despite seat belts and air bags. Smog still hangs over major cities despite emission standards and catalytic converters. Second, social impacts of technology aren't design flaws in the technology. The introduction of a factory into a cottage industry based region will have great impact on the community. Techo fixes can address problems of worker safety and proper ventilation in the factory, but they can't address the social impact of economic change. In a situation like this one, the engineering approach is blind to the cultural aspect of technology (Pacey 6-9).

The control approach's mantra goes something like this: 'Technology can be used for good or evil, but we as civilized and rational humans are able to control technology and use it only for good.' Any technology can be used in negative ways. A firm believer in this approach may use the example of nuclear technology. Nuclear technology can be used to create weapons that will annihilate the world, but it can also be used to create sources of electricity. In fact, if properly administered, those weapons of mass destruction actually promote peace rather than war. In the case of nuclear technology then, solving the potential problems is simply a case of the proper people administering technology in order to maintain control. Another example that is becoming progressively more common is the technology of gene mapping and genetic engineering. This technology can be used for a whole range of purposes. It can be used to create great cures for diseases and it can also be used to create new levels of germ warfare. The control model assures us, however, that the negative possibilities need not come about so long as we allow our governments and scientists to

control the applications.

The control approach is flawed for two reasons. First, even if technologies could be so firmly controlled, I have no trust whatsoever that scientists or governments will use these technologies only for 'good.' Scientists working in genetics need someone to sell their products to. NGOs bent on feeding the third world simply cannot outbid corporations like Monsanto or Agro Evo, who wish to produce crops that will increase sales of their own products.[4] In the case of government control of the negative uses of technologies, legislation is usually weak and poorly enforced.[5] In the rare circumstance when legislation is strong, global economic interests have formed international organizations capable of eliminating governmental regulations in the name of free trade.[6]

The second flaw with the control theory is that it is in fact impossible for us to control the effects of technologies separately from the technologies themselves. Ursula Franklin describes this when she states, "any goal of the technology is incorporated a priori in the design and is not negotiable" (Franklin 18). As described earlier, the elimination of small business is incorporated within the design of a large-scale factory. Adopting an industrial means of production must by its very nature eliminate other methods. Neil Postman argues in his book *Technopoly* that "once a technology is admitted [to a culture], it plays out its hand, it does what it is designed to do" (Postman 7). He uses the example of writing to illustrate the flaw of the control approach. "It would be absurd to imagine ... advising, in the manner of today's standard-brand Technophiles, that, if only writing would be used for the production of certain kinds of texts and not others (let us say, for dramatic literature but not for history or philosophy), its disruptions could be minimized." People simply cannot control the impacts a new technology will have once the technology has been released into society.

Having now looked at the two standard responses to the problems created by some technologies and seen why they are insufficient, I will move on to describe the Luddite response. By describing everything that Luddism is not, along with explaining the actual actions taken by the Luddites, I have more or less already painted the picture of Luddism's response to the problems of technology. The approach is, at least in theory, fairly simple. When a technology will cause far more harm than good to a group of people, then that technology should be rejected completely. This rejection would preferably occur before the technology is introduced to a society. If this rejection must for some reason happen after the introduction of the offending technology, then if it is deemed possible to remove the particular technology, steps should be taken to do so. In the case of the problems associated with cars in cities, the Luddite approach might suggest eliminating cars from cities altogether and replacing them with a system of public transit. Alternately, Luddism might also suggest that the cities may be the problem and that we should go back to smaller communities.

On a societal level, a Luddite approach would suggest that, as much as possible, technologies should have their negative and positive aspects identified before they are developed or introduced to a society. By so doing, we as a society would be better able to judge whether we wish to develop particular technologies. A Luddite approach would also suggest that the decision-making power as to the appropriateness of a technology would be taken away from those who developed the technology, since these individuals will almost always be unfairly biased towards their own creations. The influence of those who stand only to benefit from a new technology must also be diminished. An example of this type of person would be the 19th century factory owner who stood to make staggering profits from the introduction of textile factories and who had profound influence over the parliament of the time. Plato's *Phaedrus* presents us with a striking image of the sort of decision-making model I suggest. When discussing writing with Phaedrus, Socrates relates the story of an Egyptian king. In the story, King Thamus is entertaining the God Theuth, who has brought his inventions before the king so that the king could decide whether they should be made available to the people of Egypt:

> Thamus inquired into the use of each of them, and as Theuth went through them expressed approval or disapproval, according as he judged Theuth's claims to be well or ill founded. It would take too long to go through all that Thamus is reported to have said for and against each of Theuth's inventions. But when it came to writing, Theuth declared, 'Here is an accomplishment, my lord the King, which will improve both the wisdom and the memory of the Egyptians. I have discovered a sure receipt for memory and wisdom.' To this, Thamus replied 'Theuth, my paragon of inventors, the discoverer of an art is not the best judge of the good or harm which will accrue to those who practice it. So it is in this; you, who are the father of writing, have out of fondness for your off-spring attributed to it quite the opposite of its real function. Those who acquire it will cease to exercise their memory and become forgetful; they will rely on writing to bring things to their remembrance by external signs instead of by their own internal resources. What you have discovered is a receipt for recollection, not for memory. And as for wisdom, your pupils will have the reputation for it without the reality: they will receive a quantity of information without proper instruction, and in consequence be thought very knowledgeable when they are for the most part quite ignorant. And because they are filled with the conceit of wisdom instead of real wisdom they will be a burden on society.' " (Plato)

In *Technopoly*, Postman notes that there is one omission in Thamus' judgement about writing and that is that the king speaks as if writing will only be a burden. Both he and Theuth have made the mistake of thinking that this technology will have a one-sided effect, but in fact "each technology is a burden and a blessing" (Postman 5). It is up to us to determine whether the burden will outweigh the blessing or vice versa. Correcting for Thamus' omission, we can see a model for a Luddite society emerging.

We are of course a long way from achieving this sort of society. Our society is dominated by an ideology that considers technological progress inevitable. So what does a Luddite perspective suggest? The original Luddites, as already mentioned, set about eliminating the offending technology. The Luddites campaigned a great deal in the English parliament in hopes of getting the factories banned. When legal channels failed, they eventually turned to more destructive means. This approach, however, is not one that we can condone. Smashing machines as the Luddites once did would not only be ineffectual, it would also be immoral. Violence and vandalism are not acceptable or ethical answers to the problems I have discussed. The approach I am here suggesting is that we attempt to change our society's view of technology and progress. Luddism suggests that a balanced, inclusive analysis of technologies be introduced to our society, in place of the ideology that is now dominant.

Having outlined the problems that technology can create and why the Luddite approach alone can truly deal with them, I will now consider two objections to the Luddite position. I will not consider objections to Luddism that argue that it is immoral to destroy technologies, as I believe that I have made it clear that the Luddism I am suggesting is not a violent ideology and does not condone nor encourage destructive behavior. I will instead consider objections that target the radical[7] position of Luddism, which is its wholesale rejection of certain kinds of technology and the motivation for this rejection.

The first objection is made from a capitalist standpoint and targets the motivations for Luddism. This objection goes something like this: 'the motivations given for Luddism are false. Luddism is not a fight for quality of life; it is a fight for profit. Luddism is just vigilante capitalism. The Luddites couldn't compete and so they resorted to smashing things to try to maintain their profit margin. They were really no better than the people they despised.' This objection does of course capture something of the motivation of the original Luddites. They were indeed faced with having to take a pay cut and if

this were the only effect on the Luddites, this objection would indeed hold some water and we would have to admit that their motivations were less than pure. However, this objection fails to acknowledge the full impact of factories on the Luddites' lives that I have described. The Luddites' anger was only partially created by economic factors. The real fuel for the rebellion came from the destruction of their way of life (mixed labor, home based work, etc.).

The second objection I will consider is one based on the writings of Martin Heidegger. In the *Question Concerning Technology*, Heidegger explains that

> The threat to man does not come in the first instance from the potentially lethal machines and apparatus of technology. The actual threat has already afflicted man in his essence. The rule of enframing threatens man with the possibility that it could be denied to him to enter into a more original revealing and hence to experience the call of a more primal truth. (Heidegger 333)

Heidegger is asserting that the danger is not one created by specific modern, industrial technologies such as factories, but rather is created by the essence of enframing (modern industrial technologies). He believes that humans are in danger of not realizing their role as revealers of being and he believes that to focus on specific modern technologies and try to master them will be crippling. The Luddites are concerned entirely with the effects of specific technologies and as a result they are falling into the trap Heidegger has described. Since the saving power lies with the danger, we must stare directly into the danger so as to reach the saving power. The Luddites have essentially turned their backs on the saving power.

Unfortunately, Heidegger never makes specific mention of the Luddites anywhere in his questioning. It's a pity that he doesn't, since a discussion of Luddism would likely cast a great deal of light on Heidegger's somewhat difficult ideas. Nevertheless, I will try to explain why I believe that the Luddites should not be considered subjects of Heidegger's warning. The Luddites lived on the cusp of the beginning of the modern technological age. Before the factories came, their activities involved more of a bringing forth, rather than a challenging forth, of objects. They reacted against the modern techniques of enframing, perhaps partly because they realized that they were to be challenged forth and made standing reserve. The danger stared these individuals right in the face, and rather than become entranced by it, they instead tried to maintain their old technologies and way of life. Indeed, it may be that the Luddites were the very first group to ever experience 'the turning' as Heidegger described it. They may not have understood it in the same terms as Heidegger, but it does seem that they recognized a danger, not just in the technologies themselves, but also in the very nature of the modern technological movement. They decided they wanted no part of it. While it is impossible to know exactly what Heidegger would think of the Luddites, I believe that on close inspection they may have come closer Heidegger's ideal than any other group in history.

So how can we move towards a Luddite society? We are surrounded and dominated by technophiles and mass Luddite-like property destruction is not an acceptable or effective tool for change. I am sad to say that I don't have a laundry list of solutions that can easily be applied to create such a society, but I do have some modest suggestions that can begin to build the groundwork for a new societal approach to technology. First, we should all work towards expanding public debate about new technologies. These debates are presently in the hands of technocratic 'experts' who tend to analyze problem from their own limited perspectives.[8] By expanding the debates to include more and more perspectives, we can begin to more accurately estimate the true costs and benefits of new technologies. After all, we all know at least a little bit about our own lives, and it is our lives that many new technologies will affect. My second suggestion is that each person attempt to honestly analyze each technology in their own life to determine both how it benefits them and how it burdens them. By this process we can each better understand the true effects of existing

technology and begin to consider whether we wish to attempt to remove certain technologies from our society completely. While these are small steps on a long road, I believe that they are important and productive ones for our society to take.

Finally, I would be dishonest if I was to imply that there would not be costs to moving towards a Luddite society. As stated many times in the above essay, no technology has a one-sided effect. Those technologies we deem to do more harm than they will do good may have to be removed, and with them would go their positive effects. We would likely have to be willing to give up short-term pleasures and luxuries in order to achieve long-term benefits. Further, we will have to resist the temptation to develop technologies that will be within our grasp, technologies that may have seductive short-term benefits. Luddism, like many branches of moral philosophy, is asking us to sometimes make personal sacrifices in order to do what is right.[9]

In this paper I have described the problems that can be created by new technologies and argued that the Luddite response to these problems is superior to either the control model or the engineering model typically used in our society. Essentially, what I have suggested is that we work to remove the present ideology that technological progress is inevitable. In replacing this ideology, we should seek to develop an approach capable of considering both the positive and negative aspects of technologies.

Notes

1 Pacey would describe this as an examination of the cultural and organizational aspects of these technologies (Pacey 6).

2 This is of course not by any means a complete sketch of the economic process of industrialization, but it is a fairly accurate account of the essential process and its impact on small business. Modern examples are best found in the retail and computer software industries.

3 There have of course been many attempts over the centuries to create technologies to prevent people from taking immoral action against us, from weapons to locks to lie detectors. The most recent and striking example is the hundreds of surveillance cameras that have been put up in public places all over Britain. Of course this sort of technology is not offering any sort of moral guidance, but rather simply providing some degree of forcible prevention.

4 Examples of these are various forms of GM crops that will produce their own pesticides or grow in colder temperatures, as well as products already on the market such as Round-Up, a herbicide that is presently out of the price range of the average third world farmer.

5 An example of this can be found in British Columbia's forestry industry. The Forest Practices Code, which governs the operations of timber companies in BC's forests, appears tough on paper, but has never been fully implemented, nor are the implemented sections ever enforced by the government.

6 The World Trade Organization is an example of this. The WTO has consistently overturned environmental and labor laws in various countries that were seen as 'barriers to trade.'

7 Radical in this sense being used with its original Greek meaning: "root"

8 At the moment the best example of this can be seen on the televised debates about stem cell research. Each expert present his/her analysis from his/her own particular perspective, but holistic analysis never seems to occur.

9 Postman begins his book with a quote from Paul Goodman's New Reformation: "Whether or not it draws on new scientific research, technology is a branch of moral philosophy, not of science." Perhaps in its own way, Luddism is an ethical philosophy as much as it is a political stance.

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