## WORK AND LEISURE

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A MONG recent prognostications concerning future changes in our economic and social life, few have been more startling in their nature and significant in their implications than Professor Julian Huxley's prediction of a two-day working week. Being made at a time when our industrial system is badly out of joint, his prophecy is likely to be greeted with more than the ordinary amount of scepticism. Nevertheless, it is not the unintelligent view of an enthusiatic visionary. While at present the ultimate achievement of such an object as Professor Huxley is looking forward to may seem rather remote, it is undoubtedly true that we shall find it possible in the coming years to produce enough to meet our physical requirements by working a much smaller number of hours a week than we find necessary now. It is interesting, therefore, to discuss some of the means which will make this possible.

The possibility of enabling man to satisfy his material needs by the exertion of a small amount of physical effort is a question that has received the attention of thinkers for centuries. Such means as the earlier thinkers had in mind for achieving such a desirable object were, to be sure, somewhat different from those upon which we now base our hopes. One would naturally expect this, in view of the social, economic, and political conditions at the time these earlier thinkers and writers lived.

Their writings, which in some cases are distinctly utopian in nature, have more than historic interest. While one may doubt the efficacy of the means they suggest for reducing the number of hours of work necessary to provide for physical needs, one will at least find their opinions on this question mentally stimulating. And what is more, their manner of handling the problem of leisure time is very suggestive.

Going back to Campanella, we find that for his imaginative "City of the Sun" he established a short working day of about four hours. This was made possible, not through the extensive use of complex mechanical tools and devices, scientific management, and large-scale production, but through a very simple arrangement, which other writers too have looked upon as sufficient to bring about a shorter working day. This was the necessity that all should work: "while duty and work is distributed among all, it falls to each one to work for only about four hours every day." Having set up a working day of this length, it was necessary for Campanella to deal with the problem of leisure time. Parenthetically, it might be pointed out that Professor Huxley is of the opinion that unless man can add very greatly to his knowledge of what to do in his spare time, there is a real danger of leisure becoming a "terrible curse." The question of the profitable use of leisure, therefore, is vitally important, not only for the future but also for the present. Campanella solved this problem most admirably, and those who are concerned with the question in our real world would do well to consider the types of activities that the inhabitants of the City of the Sun engaged in outside of their working hours. "The remaining hours are spent in learning joyously, in debating, in reading, in reciting, in writing, in walking, in exercising the mind and body, and with play."

Sir Thomas More, in his entertaining *Utopia*, established a sixhour working day for the subjects of King Utopus. Such a short working period was brought about by compelling almost all the inhabitants, men as well as women, who were able, to engage in work, and by having their efforts devoted to the production of necessaries. Apparently the dwellers in Utopia were to be more studiously inclined than those in the City of the Sun, for we find that they spent most of their time in reading, although music, discourse, and games were certainly not disregarded.

Coming down to more recent times, we discover Benjamin Franklin, in his letter of July 26, 1784, to Benjamin Vaughan, explaining the presence of so much want and misery in the world at that time as due to the employment of men and women at work that did not produce the necessaries and conveniences of life, and to the fact that these individuals, along with those who did nothing, consumed the necessaries raised by the laborious. He mentions the computation of a political arithmetician who estimated that if every man and woman would work on something useful for four hours each day, enough would be produced to procure all the comforts and necessaries of life. The remainder of the day might be used for leisure and pleasure. Misery and want would be banished from the world.

Godwin found the *Open Sesame* to the shorter working day in the equalization of property, in the restriction of productive effort to the making of necessaries, and in the practical universalizing of work. In the eighth book of his *Enquiry Concerning Political Justice*, in which he discusses the question of property, he endeavours to convince his readers that if property were equally divided, and if all the members of the community were to be seriously employed at manual work for half an hour a day, the necessaries for the whole community would be supplied. Godwin had little fear that the equalization of property will remove the incentive to effort, and result in the spending of the leisure time in idleness. In the type of society he supports, the general mind will have reached a high stage of improvement, and "The impulse that carries it into action will be stronger than ever. The fervour of public spirit will be great. Leisure will be multiplied, and the leisure of cultivated understanding is the precise period in which great designs, designs the tendency of which is to secure applause and esteem, are conceived."

Fourier estimated that under the associationist social and industrial system that he advocated it would be possible for a man to produce enough during the period from his eighteenth to his twenty-eighth year to spend the rest of his life in luxury. Fourier's faith in the possibilities of his socialistic phalanxes was positively astounding, as well as exceedingly amusing. He expressed the opinion that if England would adopt his system of phalanxes, the productivity of her labour would be so greatly enhanced as to make possible the paying off of her national debt within six months by the selling of hens' eggs!

Prince Kropotkin, in his *Fields, Factories, and Workshops*, expresses optimistic views concerning the results of compelling all to work, and socializing production. Under such a system the length of the working day would be decreased by more than a half, and everyone would be able to use the hours which were no longer necessary for work in "the pursuit of art, science, or any hobby he or she might prefer." "Work in those fields would be the more profitable if he spent the other half of the day in productive work—if art and science were followed from mere inclination, not for mercantile purposes." In addition, Kropotkin thought that a community in which all had to work would be rich enough to permit every man and woman after having attained a certain age—"say forty or more"—to be relieved from the moral obligation of engaging in the necessary manual work. He or she would then be able to work in the field of art, or of science, or in other spheres.

At the present time the expectation of a shorter working day, or week, is not usually based on the means set forth by the writers just mentioned. The universalizing of work, the equal distribution of property, the restriction of production to the making of "necessaries"—these would enable man to satisfy his material needs by working fewer hours a week. However, in our competitive economic order, an order in which individualism is strongly entrenched, in which the institution of private property is firmly established (Russia, of course, excepted), and in which the desire for a rising standard of living is generally recognized, these means are not very practicable. Consequently, hopes for achieving our object must be based on something else.

Perhaps the principal way in which the number of necessary working hours is going to be further reduced in the future will be by continous improvements in machinery and mechanical devices, and by their more extensive utilization. Growth in our material culture is cumulative in nature, and with the great advance that has been made, especially during the last hundred years, in the invention of tools and machinery, a broad foundation has been laid which will facilitate the making of further mechanical progress in the future. As a result, an increasingly large number of the operations of industry will be brought within the domain of the machine.

Such a change as this will not be looked upon with complete approval. It seems necessary, however, that if our material needs are to be satisfied more adequately and with the expenditure of a smaller amount of human labour, we shall make additional use of machinery and of machine methods. An abundance of goods and services cannot be produced in a short time with crude methods of This elementary truth is not always clearly recognized. production. In William Morris's delightful story, News From Nowhere, we read that in the society he portrays "All work which would be irksome to do by hand is done by immensely improved machinery; and in all work which it is a pleasure to do by hand, machinery is done without." Apparently Morris was of the opinion that a large amount of the work would be done by hand by "this happy and lovely folk, who had cast away riches and attained to wealth." and who led "a life of repose amidst energy." This appears very attractive, but the achievement of the conditions described should be considered in connection with the methods recommended. Graham Wallas tells of a rough calculation he once made when listening to Morris lecture, in which he discovered that the citizens of the commonwealth Morris was advocating would find it necessary to work about two hundred hours a week if they were to produce, by the methods that Morris suggested, all the beautiful and delicious things they were to enjoy.

During recent years our standards of living have risen, and many beautiful and delicious things have been brought within our reach. We do not believe in the doctrine of the utility of poverty, a classic expression of which was given by Arthur Young in 1771, when he said that "Everyone but an idiot knows that the lower classes must be kept poor or they will never be industrious—they must be in poverty or they will not work." Neither do we blend

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our voices in singing with sincere approval Mrs. Alexander's complacent verse:

> The rich man in his castle, The poor man at his gate, God made them high or lowly, And ordered their estate.

A rising standard of living for all is an ideal that is now generally accepted, and an ideal that is being largely realized.

Money wages have been going up at a more rapid rate than the cost of living; and as a result, real wages have been ascending. The following figures, taken from the 1930 Canada Year Book, show for the years 1917 to 1928 the average number of wage earners in Canadian manufacturing industries, and an index of the real value of their average yearly earnings. This index is calculated by dividing the average yearly money earnings by a cost of living index, 1917 being considered as the base year and being represented by 100.

Year	Average number of wage-earners	Index numbers of the real value of average yearly earnings
1917	552,968	100.0
1918	547,599	101.5
1919	529,327	98.5
1920	526,571	100.4
1921	381,203	103.2
1922	398,390	105.8
1923	446,994	. 107.9
1924	432,273	111.7
1925	466,602	110.2
1926	499,745	113.0
1927	533,450	114.1
1928	566,780	116.4

While the above figures have very serious limitations, they are at least suggestive. Our standards of living have risen, and at the same time the number of hours of work necessary to make possible these higher standards has been reduced. Had we been content with the old standards, the reduction in the length of the working week could have been appreciably greater than it actually has been. However, the reduction has been remarkable. The workers themselves in some cases have taken very active initial steps to bring about the change. It has been stated that the International Typographical Union expended \$20,000,000 in its fight to establish the 44-hour week.

The raising of the standards of living, at the same time that the length of the working day or working week, has been reduced, has been made possible by the extraordinary increase that has taken place in the productivity of labour during the last few decades. Going back no farther than 1914, we find that in some industries very remarkable developments have taken place. The following statistics, from the *Monthly Labour Review*, will give one some idea of the advance that has been made in recent years in labour productivity. These figures relate to a number of manufacturing industries in the United States, the man-hour productivity in these industries in 1914 being represented by 100, and the indexes of productivity for 1927 being calculated on the 1914 base.

Index Numbers of Man-Hour Productivity of Labour.

1914 and 1927

Industry	1914	1927
Iron and steel	100	155
Petroleum refining	100	182
Paper and pulp	100	140
Cement manufacturing	100	154
Automobiles	100	278
Rubber tires	100	392
Flour milling	100	159

In the agricultural industry there has also been a striking increase in labour productivity. It has been estimated that the 1928 wheat crop in Western Canada, which was the largest ever produced, was harvested by 16,500 fewer men than would have been required if some 4,000 combines had not been in use. Not only has the extensive mechanization of agriculture resulted in an increase in labour productivity, but it has also had other effects which may not be as obvious. To give one example, Mr. O. E. Baker of the United States Department of Agriculture estimates that between 1918 and 1928 the amount of crop land in the United States released for other uses or for non-use as a result of the coming of the tractor and automobile was probably about 15,000,000 acres, this land having been used for feeding horses and mules.

The increase in labour productivity in manufacturing industries, as well as in agriculture, has not been due solely, or even chiefly, to the exertion of more physical and mental effort by the workers. An explanation is found largely in the fact that labour has not only more but better tools and machines to work with. It is an important principle of economics that the productivity of labour in any country, or in any industrial establishment, is dependent not only upon the quantity and quality of this labour, but upon the quantity and quality of all other productive agencies as well, and also upon such miscellaneous factors as a stable government and proper legislation. Additional increases in the productivity of labour, therefore, will not be dependent upon the quality of our labour alone. Such increases will be largely dependent upon the amount and the kinds of tools and machines that the workers have at their disposal, and the way in which the various productive factors are organized and combined.

In achieving a shorter working week, the principle of specialization will undoubtedly be further extended. An excessive division of labour has been condemned, and with some justification, by such men as Ruskin, Tolstoy, and Morris. If a worker has to concentrate on the performance of some minute operation for eight, nine, or ten hours a day, the result is in many cases mentally deleterious. It appears to be true, however, that some individuals prefer performing tasks that are simple and repetitive in nature to those which are complex and call for the exercise of individual judgment. Any appraisal of the division of labour, to be fair, must be based on an analysis of all its aspects and consequences. Looked upon simply as an end, it is in many cases a curse; but regarded as a means, it may be a blessing.

It seems inevitable that many of our workers will find it more and more difficult to derive joy out of work that is becoming more mechanized. Much can be done in adding to the amount of happiness that an individual finds in his work by discovering and utilizing new incentives. Bonus plans, union-management, cooperation such as we find in use by our Canadian National Railways, employee stock-ownership: these are a few incentives that may be adopted.

But there are limitations on the extent to which incentives can arouse in the employee interest in his work and in the organization by which he is employed. An increasing amount of work, because of its specialized and mechanical nature, will be extremely monotonous. This does not mean that in the aggregate we shall have a serious individual and social loss. If the performance of a few hours of monotonous work each day makes possible a large amount of leisure, mankind will be benefited by the application of the means that make the shorter working day possible; providing, of course, that the proper use is made of the leisure time.

Another factor that will be of influence in increasing the output of industry and reducing the hours of work will be the better allocation of our productive resources to the tasks or purposes for which they are best adapted. Some progress has already been made in the study of land utilization by agricultural economists, and the importance of this branch of land economics is being more widely recognized. Much, however, still remains to be done in this field. From the point of view both of the individual and of society, the proper use of our natural resources is a matter of fundamental consequence.

Of greater importance, however, will be the better utilization of our human resources. Considerable work has already been done in vocational guidance, but the opportunities for further accomplishment are still enormous. With a better allocation of our labour power, not only will there be an enhancement in the tangible output of industry, but there will also be intangible benefits, contributing greatly to human happiness. A workman who is employed in the occupation for which he is best fitted will obviously derive more joy out of his work than he would from one for which he is not suited.

Material progress will be hastened also by the more satisfactory training of both our mental and manual workers. Capacity is in no small measure a matter of "nurture", and the determination of the quantity and quality of this "nurture," and its distribution, is largely under the control of our educational institutions. Not only have they an obligation placed upon them, therefore, but they are afforded an opportunity.

Serious social consequences will follow some of the changes that are going to make the shorter working day possible. The further mechanization of industry will mean that the problem of technological unemployment will continue to be present. Unemployment due to fluctuations in business activity—the so-called "cyclical unemployment", and the most serious kind—will also still be present, unless a way is discovered for dealing with the ups and downs in business.

It would be contrary to sound economic reasoning to look upon a shorter working week as furnishing a permanent remedy for unemployment. Decreasing the number of hours each person works a week offers no promise as a permanent cure.

In addition to the unemployment problem, the continued mechanization of industry will cause other social problems still to be with us, owing to the fact that we have what has been aptly called a "cultural lag." Changes in our adaptive non-material culture lag somewhat behind the changes in our material culture. Progress in the making of mechanical inventions, for example, is not followed immediately by the passing of appropriate social legislation and the adoption of other means for dealing with the problems that arise from such inventions. Consequently there is maladjustment. The minimization of this maladjustment, the cutting-down of this cultural lag, constitutes a most important task for our various legislative and governing bodies, as well as for our private institutions and organizations. The task should be performed, not through retarding the advance of our material culture, but through hastening the advance of our non-material.

What is required, therefore, is an enlightened public opinion which will not permit the brightness of the distant future to prevent it from seeing in their true light the serious social problems of the present, a public opinion which will support progressive social legislation providing for the material needs of those who are unfavourably affected by changing technological and economic conditions in industry. Employers also are needed who, in an individual capacity, will make intelligent efforts to lessen the human suffering caused by such changes.

The question relating to the proper utilization of leisure time calls for careful study. Activities should be encouraged which will allow the greatest possible scope for intellectual, spiritual, and physical development. It is only by engaging in such activities that many of the unfavourable effects of mechanized production can be counteracted.