A Sustainable Perspective on the Knowledge Economy: A Critique of Austrian and Mainstream Views

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Abstract: Human generations are interrelated and ought to be examined as an integrated whole. From the holistic viewpoint of overlapping societies, the costs incurred in each generation for using knowledge decrease and the benefits generated in each generation from employing knowledge increase. The present generations, indeed, have to recognize that they are very fortunate. To maintain a sustainable society with efficient use of resources, it is required that a more equitable distribution of wealth be achieved. This type of question, however, continues to be ignored and remains unanswered in both the Austrian analysis of the knowledge problem and the mainstream exposition of the knowledge economy. To date, the real knowledge economy for carrying out a sustainable society has not yet come. Thus, we had better rid ourselves of growthmania and strive for a new knowledge economy from the perspective of a sustainable future. Once it is arrived at in the future, it will give rise to a knowledgeable milieu or niche for developing John Stuart Mill’s stationary state, an exposition unequivocally consistent with the contemporary analysis of sustainable development.

Keywords: the knowledge economy, the knowledge problem, John Stuart Mill, sustainable development, stationary state

JEL Classifications: B50, B30
A nation cannot live merely on victuals, comforts, games, and weapons; a concern with ideas and values is essential, for without them life becomes meaningless.

— Fritz Machlup, 1962, p. 206

I. Introduction

In recent years, investigations and discussions on the knowledge economy (or knowledge and the economy) have intensified (see, for example, Grossman and Helpman, 1991; Freeman and Polasky, 1992; Jones, 1995; Atkinson and Court, 1998; Aghion and Howitt, 1998; Thurow, 1999). The mainstream exposition of the knowledge economy, however, is epistemologically circumscribed. Knowledge is largely regarded as the central impetus to economic growth. Yet, one might ask, for example, a subsequent question. Can knowledge be regarded as the main key to solving serious problems such as deteriorating wealth inequalities and environmental degradation? These types of critical issues, as usual, have been left unnoticed and unanswered. Thus, one might instantly doubt whether the emergence of the knowledge economy is intellectually enlightening. By probing further, one could even find that the mainstream knowledge of the emphasis on knowledge and economic growth and of the ignorance between knowledge and other critical issues (such as wealth inequalities) is problematic.

A stylized fact on earth is that many poor people relentlessly die of hunger or disease every day. It is inharmonious, however, to observe, in most modern industrial
societies, those citizens who can accumulate huge private wealth under the protection of a well-developed legal system. Wealthy people and/or societies, as a rule, cheerfully claim that they are diligent, brilliant, or aware of special tricks (worthy of imitation). This type of recognition (or intellectual knowledge) is, indeed, partial and monistic. One purpose of this paper is to critically argue against the conventional wisdom from an overlapping-generations perspective.

It is known that the knowledge problem is a central theme of Austrian economics (see, for example, Kasper and Streit, 1998, chap. 3). To Austrian economists, people suffer from a shortage of knowledge. According to the Austrian analysis, economic men with perfect knowledge do not exist because people have limited ability to absorb knowledge, and to digest, transmit, and apply it. This lack of knowledge is considered to be a real part of our daily existence and becomes an important premise for the Austrian approach. People today to some extent unfortunately have been trapped in a knowledge hole, a serious phenomenon that has become intensified due to the Austrian and mainstream analyses of knowledge.

It is reasonable to state that an ordinary individual living in the twenty-first century may not be any more clever than a person living in the first century. However, we realize that the average person lives better and longer nowadays. Why? The truth is that knowledge has accumulated and spread across the world generation by
generation. That is, the knowledge fund has grown and modern people have as a consequence been endowed with greater intellectual capacity and capital. On the one hand, the marginal cost to each generation of using knowledge has decreased over time. On the other hand, the marginal benefit to each generation from employing knowledge has increased as knowledge accumulates and spreads.

The remainder of this paper is organized as follows. Section II reviews the knowledge problem from the standpoint of Austrian economics. Section III examines the knowledge economy from the mainstream perspective. Section IV analyzes the knowledge hole, a serious phenomenon partly caused by the Austrian and mainstream analyses of knowledge. Section V analyzes the state of knowledge and its impact on human welfare. Section VI offers a glimpse of a knowledge economy that helps develop John Stuart Mill’s stationary state. The final section provides a conclusion.

II. The Austrian Knowledge Problem

The Austrian knowledge problem was initially introduced and analyzed by Hayek in the 1930s and 1940s. In his 1937 paper “Economics and Knowledge” and 1945 paper “The Use of Knowledge in Society,” Hayek attacked the traditional assumption of complete knowledge and stressed the nature of the economic problem as follows:
But in our analysis, instead of showing what bits of information the different persons must possess in order to bring about that result, we fall in effect back on the assumption that everybody knows everything and so evade any real solution of the problem … It has become customary among economists to stress only the need of knowledge of prices, apparently because—as a consequence of the confusion between objective and subjective data—the complete knowledge of the objective facts was taken for granted. (Hayek 1937, p. 49)

The economic problem of society is thus not merely a problem of how to allocate “given” resources—if “given” is taken to mean given to a single mind which deliberately solves the problem set by these “data.” It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge not given to anyone in its totality. (Hayek 1945, pp. 519-20)

To Hayek, competition means decentralized planning by heterogeneous individuals with limited knowledge (i.e. heterogeneous individuals who possess differential knowledge). From the perspective of Hayek, the best use of knowledge in society is to ensure that heterogeneous individuals with distinct plans can promptly apply their limited or partial knowledge to cooperate and/or compete with each other in the market. Hayek’s notion of equilibrium, in this context, implies a specific situation in which all heterogeneous individuals’ plans are synchronized. In addition, the interactions of all these heterogeneous individuals (best known as the market process or a catallaxy) can lead to the creation or discovery of new knowledge.

In his 1974 Nobel Prize lecture, Hayek warned that economists pretended to know what was in practice not fully known or measurable, and they inevitably risked
giving false advice. He said:

To act on the belief that we possess the knowledge and the power which enable us to shape the processes of society entirely to our liking, knowledge which in fact we do not possess, is likely to make us do much harm. (from Hayek’s Nobel Prize Lecture, The Pretence of Knowledge)

To Hayek, the market is instrumental and necessary for the realization of individual will, the solving of economic problems, and the gestation of new knowledge. The central planners and/or boards characterized by their limited knowledge cannot predict the final outcomes of individual actions in the unknown future. They, of course, cannot just issue authoritative orders to solve the economic problems of society.

Knowledge is a central element of the Austrian analysis. To paraphrase Hayek, Austrian economists recognize that the lack of (perfect) knowledge or human ignorance is constitutional. In essence, the economic problem is concerned with how heterogeneous individuals with limited knowledge carry out their actions and execute their plans over time through exchanges with each other. The market is an institution for the coordination, exchange, and utilization of the differential knowledge of individuals. People learn by doing through the market process and acquire new knowledge by interacting with others.

The Austrian policy position follows from their exposition of knowledge. From the Austrian perspective, it is not surprising to observe that people are wrong in their
decisions from time to time. The Austrian analysis of knowledge in fact strongly implies that there is no good reason why people should ever be right in their decisions. As a result, Austrians tend to legitimize the existing market institutions and strongly oppose government intervention.

III. The Knowledge Economy: Knowledge and Economic Growth

(The Austrian Microfoundation of the New Growth Theory)

The present interpretation of the knowledge economy focuses on the important role of knowledge (or human capital) in long-run economic growth. In academia, economic growth is central to the present study of macroeconomics and research in the field of economic growth has reawakened since the mid-1980s. Romer (1986) and Lucas (1988) initiated the recent wave of growth research. According to the new growth theory, the advance of knowledge is a crucial determinant of long-term economic growth. Spillovers of knowledge (or human capital) across firms, for example, can help avoid the phenomenon of diminishing returns to the accumulation of capital.

This current interpretation of the knowledge economy and the development of the new growth theory have given rise to at least two interesting questions. Robert Lucas was awarded the 1995 Nobel Prize for his rational expectations thesis. It was
even predicted that he might be awarded a second Nobel Prize because of his influential 1988 paper “On the Mechanics of Economic Development.”\textsuperscript{1} Thus, one might be curious to learn whether the key elements of the new growth theory represent an intellectual breakthrough (from an epistemological perspective). A thoughtful investigation of this question inevitably leads to the emergence of the following question: Does there exist any relationship between the Austrian analysis of knowledge and the new growth theory?

It has been widely recognized that Austrian economics is almost entirely focused on microeconomics.\textsuperscript{2} Thus, in the first place one might be unaware of the nexus between the (micro) Austrian analysis of knowledge and the (macro) new growth theory. After further examination, one might, however, find some evidence that the Austrian analysis of knowledge and the macro analysis of the new growth theory are unwittingly related.

As illustrated in Section II, the competitive market process has led to beneficial interaction among market participants from an Austrian perspective. This process, over time, reduces ignorance to manageable levels for economic agents and promotes the discovery of knowledge that was not previously available. This dynamic process further the emergence of knowledge and, consequently, could contribute to economic

\textsuperscript{1} A genuine title of his paper should be “On the Mechanics of Economic Growth.”

\textsuperscript{2} Horwitz (2000) has recently offered an exposition of what Austrian macroeconomics would look like.
growth. Thus, it has become very natural to regard the spread and accumulation of knowledge across profit-pursuing producers as being beneficial to long-run economic growth.³

Fritz Machlup (1962, 1980), a late president of the American Economic Association and an eminent Austrian economist specializing in the subject of knowledge, proposed the following five classes of knowledge: (1) practical knowledge, (2) intellectual knowledge, (3) small-talk and pastime knowledge, (4) spiritual knowledge, and (5) unwanted knowledge. He further classified knowledge production into six major knowledge industries and branches: (1) education, (2) research and development, (3) artistic creation and communication, (4) media of communication, (5) information services, and (6) information machines. During the late years of his life, Machlup had a plan to compile his research on knowledge into eight volumes that included a comprehensive study on the size and growth of knowledge production in the US. He mentioned that “an economic analysis of the production of knowledge is not only justified but overdue. What I shall have to offer may be only prolegomena to the subject.” (Machlup, 1980, pp. 10-11)

Machlup died in 1983 and did not finish his monumental inquiry into the production of knowledge (which covered 8 volumes). His planned last volume was

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³ Romer (1986) has assumed a competitive equilibrium model with endogenous technological change.
entitled *Knowledge Occupations and the Knowledgeable Society*. Despite Machlup’s impressive contribution on the subject of knowledge, one may still strongly perceive his Austrian bent and his paucity of intellectual discussions regarding some key elements (such as policy-oriented knowledge for solving economic inequalities). His unusual insights and works, indeed, have highlighted the importance of knowledge production for economic growth in modern economies and have stimulated subsequent research into *the knowledge economy* in academia. Thus, the present interpretation of the knowledge economy that emphasizes the importance of knowledge (or human capital) to long-run growth can to some extent be viewed as the restructuring of the microfoundations of mainstream macroeconomics toward the Austrian school.

**IV. The Knowledge Hole**

The Austrian analysis of the knowledge problem and the mainstream exposition of the knowledge economy are analytically compatible and sequentially connected. Austrians criticize the neoclassical assumption of given knowledge and emphasize the constitutional ignorance of human existence. One might, however, initiate appropriate institutional arrangements such as an educational reform to ease human ignorance and facilitate the accumulation of knowledge. Over time, the accumulation of knowledge
leads to long-term economic growth. Thus, the Austrian analysis of the knowledge problem is, in effect, the predecessor of the mainstream exposition of the knowledge economy. In this regard, one can perceive that the Austrian school has become increasingly dominant.

Yet, the Austrian analysis of the knowledge problem is far from perfect and one might simply present the Austrians with a fundamental question. That is, it is not a problem to admit that people are to some extent ignorant. However, why do people possess differential knowledge (and why are some persons more knowledgeable than others)? In other words, why does the Austrian school regard individuals with differential knowledge as given in their analysis? It is clear that the Austrian analysis methodologically rationalizes the existing knowledge structure of the society. It is, however, not difficult to imagine that the profits and/or gains from market activities are closely related to the differential knowledge of market participants. Since differential knowledge is a key element in deciding market winners or losers, the study of the formation of the knowledge structure of the market participants becomes vital. The Austrian analysis, however, merely takes the phenomenon of heterogeneous individuals with differential knowledge for granted without further examining its causes and far-reaching consequences. This shortcoming of the Austrian analysis of the knowledge problem is significant.
The mainstream exposition of the knowledge economy is also epistemologically circumscribed. Knowledge is largely regarded as the central impetus to economic growth. Yet, one might ask the following questions: Can knowledge be regarded as the main key to solving serious problems such as deteriorating wealth inequalities and environmental degradation? Or, can knowledge be regarded as the central element for promoting socioeconomic progress (such as creating a sustainable society)? If the answers are emphatically positive, then the mainstream persistent exposition of the knowledge economy from the perspective of increased production and accumulation has proved to be not only intellectually disappointing but also problematic. The limitations imposed by the mainstream’s narrow analysis of the knowledge economy are quite evident.

Above all, human wants are not given and static. Human wants are not independent of human creation and the accumulation of knowledge. It makes sense to infer that people living in modern societies create new and possibly more wants as they become more informed and knowledgeable. Consequently, people have to acquire more knowledge to satisfy their newly-created wants. If, unfortunately, these newly-created wants cannot be fully satisfied in a timely manner, various problems or crises may quickly arise. It is, therefore, easy to observe that a modern and knowledgeable society is riddled with a variety of problems.
V. The State of Knowledge: Knowledge and Human Generations

Human life is collective, cumulative, and evolutionary in character. It is, indeed, reasonable to state that an ordinary individual living in the twenty-first century may not be any more clever than a person living in the first century. Many well-known facts can immediately justify this statement. Just take the phenomenal Egyptian pyramids for example. So far, modern scientists have not exactly figured out how they were built. However, we realize that the average person lives better and longer nowadays. Why? The truth is that knowledge has accumulated over time. That is, the knowledge fund has grown and modern people have consequently been endowed with greater intellectual capacity and capital. To better understand this point, we might hypothetically imagine the existence of a knowledge barn for human society from an overlapping-generations perspective. In primitive and ancient times, the knowledge barn only accommodated a small quantity of knowledge. When our human ancestors went into the knowledge barn, they found few pieces of knowledge available for use. As time went on, more pieces of knowledge were piled up in the barn as each human generation made its marginal contribution to the accumulation and spread of knowledge. Thus, the existing generations have to recognize that they are very fortunate. Knowledge has accumulated and spread across the world generation by generation. This long-term process of gestation to some extent benefits all of us.
Let us consider a very basic (but important) piece of knowledge. That is, one plus one equals two (1+1=2). In relation to this *simple* piece of knowledge, the various kinds of symbols (1, 2, +, =) and the addition rule were previously designed and created by our human ancestors. This piece of knowledge is their legacy and is collectively inherited by all of us. We can easily understand that accountants could not do bookkeeping without it. Without it, Bill Gates’ programmers would not be able to write computer programs and help Bill Gates establish his Microsoft empire. In fact, astronauts would not have landed on the moon without this piece of knowledge. A *pure* inventor or creator, as a matter of fact, does not exist in an intellectual sense.

It is also known that research and development (R & D) activities are central to the generation of new knowledge. R & D activities are dispersed across individual workrooms, private profit and nonprofit organizations, academic institutions, and governmental agencies. If one wants to measure, for example, the total cost of R & D activities, one has to take the monetary and non-monetary outlays of the parties involved into account. Thus, it can be expected that the costs to society as a whole will be extraordinarily high at first. The benefits that society can derive from the enormous amounts of money, time, and effort expended on R & D activities are normally low in the initial stages, but are expected to increase over the long run. This phenomenon is particularly significant for basic research.
Figure 1 summarizes the aforementioned arguments and shows the state of knowledge from an overlapping-generations perspective. The horizontal axis measures the time horizon of human generations. Note also that knowledge accumulates and spreads from generation to generation over time. The vertical axis measures the costs (effort) and benefits (enjoyment) associated with each human generation. The shape of the marginal cost (MC) curve indicates that the costs incurred in each generation for using knowledge decrease over time. The shape of the marginal benefit (MB) curve indicates that the benefits generated in each generation from employing knowledge increase over time. These relationships reflect the need for overlapping generations. As each new generation comes into existence, the corresponding cost-benefit gap associated with the use of knowledge becomes shortened. From the point of view of overlapping societies, the efficient accumulation of knowledge requires that MB exceed MC (which is located to the right of the intersection point of the MB and MC curves). One might need to note that knowledge, in essence, is nonrival; the true value of knowledge cannot be revealed through the market mechanism.

So far, knowledge has not prevailed among human beings and the bold vertical line in Figure 1 marks the approximate position of the existing generation(s) in human history. Unlike the orthodox benefit-cost analysis, Figure 1 implies that the
attainability of the *critical* accumulation of knowledge (occurring in the *breaking* generation) cannot be warranted. Before the breaking generation, the costs to each generation are higher than the corresponding benefits. Thus, we might refer to these preceding generations as overpaid and underenjoyed generations. After the breaking generation, the costs to each generation are lower than the corresponding benefits. By contrast, we call these subsequent generations underpaid and overenjoyed generations.

We need to be aware that the long-term phenomenon of increasing marginal benefits does not necessarily lead to the result of higher economic growth. Nowadays, people living in modern industrial societies, for example, have become more and more knowledgeable about the importance of protecting the natural environment and the disadvantages of overconsumption. As a result, more and more people all over the world have taken steps to protect the natural environment and to change their consumption patterns toward green consumption. These progressive institutional changes might, on the whole, lead to a reduction in economic growth, but a sustainable future in the long run.

**VI. A Sustainable Perspective on the Knowledge Economy**

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4 For those activities, check the “World Earth Day” ([http://www.earthday.net](http://www.earthday.net)) and “World Buy Nothing Day” ([http://www.ecoplan.org/ibnd/ib_index.htm](http://www.ecoplan.org/ibnd/ib_index.htm)) movements for example.
Now, it is time to seriously reconsider the knowledge issue from the perspective of our position in human history. Kenneth E. Boulding, a late president of the American Economic Association and a well-known institutionalist, describes the epistemological problem as follows:

There are, of course, a number of epistemological questions, some of which lie more in the province of the philosopher than they do the economist or the social scientist. The one with which I am particularly concerned here is that of the role of knowledge in social systems, both as a product of the past and as a determinant of the future. (Boulding 1966, p. 1)

What is the role of knowledge in human development? An intuitive answer is that attempts to establish a sustainable society require knowledge. So, what does a sustainable society look like? In this regard, John Stuart Mill’s concept of the stationary state — no one is poor, no one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward — is, in a sense, in line with contemporary analysis of sustainable development and worth reviewing. According to Lin (2003), the rich communities (nations) waste resources, whereas the poor communities (nations) destroy resources. Due to deteriorating wealth inequalities all over the world and limited resources on earth, the global community has become less and less sustainable. To maintain a sustainable society with efficient use of resources, it is necessary to achieve a more equitable distribution of wealth. In this regard, Lin (2003) has recently found that Mill’s concept of the
stationary state is conceptually consistent with modern exposition of sustainable development.

Although greatly influenced by David Ricardo, Mill’s stationary state was not the dismal one David Ricardo visualized. Mill took a different view of his desirable society and outlined his desires for the good future. Indeed, in his chapter on the stationary state, in which he discussed the long-run tendencies of the economy, he said:

But the best state for human nature is that in which, while no one is poor, no one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward. …There would be as much scope as ever for all kinds of mental culture, and moral and social progress; as much room for improving the Art of Living, and much more likelihood of its being improved, when minds ceased to be engrossed by the art of getting on. (see Mill’s Principles of Political Economy, pp. 748-51)

Looking at the economic and social conditions of his time, Mill felt that the mass of society was bypassed by the materialistic development of the Industrial Revolution and wondered whether a country with a growing economy was a desirable living place. He envisioned that the stationary state would result in an improvement in the art of living. He wrote, for example, as follows:

It is only in the backward countries of the world that increased production is still an important object: in those most advanced, what is economically needed is a better distribution. …On the other hand, we may suppose this better distribution of property attained, by the joint effect of the prudence and frugality of individuals, and of a system of legislation favouring equality of fortunes, so far as is consistent with the
just claim of the individual to the fruits, whether great or small, of his or her own industry. (see Mill’s *Principles of Political Economy*, p. 749)

Thus, Mill’s *stationary state*, on the one hand, might be narrowly interpreted as a society with *no (or limited) growth in production* but, on the other hand, should be best understood as a society with unlimited growth in mental culture and in consideration of economic equality (by means of wealth redistribution). Mill’s perspective, in fact, is very much closed to the ethical-utopian perspective on sustainable development. According to Bergh (1996, p. 59), the ethical-utopian perspective emphasizes “new individual value systems and new social objectives;…long-run policy based on changing values and encouraging citizens (altruistic) as opposed to individual (egoistic) behavior.”

Unfortunately for the poor, the rich have rarely been *content with being rich* in the 155 years since the publication of Mill’s *Principles of Political Economy* (first published in 1848). Locally and globally, our human societies have been continuously characterized by the scenario of (pursuing) a growing economy but accompanied with deteriorating wealth inequalities. The phenomenon of a growing economy associated by deteriorating inequality of fortunes could be due to several factors. One of them can be attributed to our asymmetric knowledge regarding the rich (communities) and the poor (communities). With respect to asymmetric knowledge regarding the rich and the poor, Boulding’s observations are worth quoting again:

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One area where economists have a good deal to be humble about is in the field of economic development of the poor countries. In the rich countries we have done fairly well; in the poor countries our record is distinctly spotty. (Boulding 1966, p. 11)

According to Boulding, it is evident that economists need to develop more balanced knowledge towards the rich and the poor. Nevertheless, the mainstream unifaceted exposition of the knowledge economy from the perspective of increased production and accumulation, as previously discussed, has been very disappointing.

As the result of a long past, we now come to inquire into the possibility of a sustainable society. Does there exist any possibility of developing Mill’s high-minded mental culture and a sustainable future? In the first place, we have to develop the vision of keeping sustainable development as our primary mission. Thus, we need to make a major change in our value judgments regarding economic goals. This is a formidable task and requires ideological abandonment of the existing dominant emphasis on economic growth.

Indeed, Figure 1 serves our purposes here and leads to the following observations. First, so far, knowledge has not prevailed among human beings due to its high cost (compared to its corresponding benefit). This phenomenon of high cost could possibly be due to the current intellectual property system, since property rights can be attached to identifiable pieces of knowledge. In recent years, intellectual
property issues have drawn increased attention and debate. It is likely that the current system of intellectual property rights (IPRs) prevents the full dissemination of knowledge. As a result, only small groups of people enjoy the benefits of knowledge. Second, once the breaking generation arrives in human history, they will be on the threshold of the real knowledge economy. The knowledge economy that occurs at the time of the breaking generation and after it will result in knowledge being used at less cost with less effort. It will then give rise to a knowledgeable milieu or niche for developing Mill’s stationary state.

“In the long run we are all dead.” So, what motivates knowledge accumulation and spread, and what are we supposed to do now? We have to deeply understand that human generations are interrelated and ought to be examined as an integrated whole. It is true that each individual human generation is mortal. However, our knowledge exists and continues to expand in human societies. In the long run, our knowledge is still living and might be vital for human development in the future (i.e. for human sustainable development). Thus, we should not only care about our own individual welfare. Under that circumstance, the attainability of the critical accumulation of knowledge that occurs in the breaking generation cannot be warranted and a sustainable human society cannot be realized. Human generations, instead, should

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5 In the US, the intellectual property system includes the patent right, copyright, semiconductor chip protection, trademark protection, and so forth (Besen and Raskind, 1991).
strive for a better and sustainable future through using available knowledge as well as developing new knowledge from an overlapping-generations perspective.

VII. Conclusion

How should we analyze the issue of knowledge? One might spontaneously relate knowledge to the study of economic growth or try to figure out the costs and benefits of using knowledge from an individual (generation) point of view. This traditional way of thinking (or conventional wisdom) is partial and monistic. The present question, in essence, is an advanced epistemological problem that needs to be considered from a holistic perspective. Fundamental to this perspective is the recognition that human generations are interrelated and ought to be examined as an integrated whole.

The world is full of unresolved problems and pressing issues. Take one economic problem as an example. One can easily observe that the phenomenon of deteriorating wealth inequalities is common and worldwide. It is evident that economists need to develop substantial pieces of knowledge to resolve it. This type of question, however, is left unnoticed and unanswered in both the Austrian analysis of the knowledge problem and the mainstream exposition of the knowledge economy. Austrians criticize the neoclassical assumption of given knowledge but themselves take individuals with differential knowledge as given in their analysis. The intellectual progress of the mainstream economists is also questionable. The mainstream’s emphasis on the link between knowledge and economic growth and their supposed
ignorance of the relationship between knowledge and wealth inequalities is epistemologically circumscribed.

From the point of view of overlapping societies, this paper shows that, over time, the costs incurred in each generation for using knowledge decrease and the benefits generated in each generation from employing knowledge increase. Thus, the existing generations have to admit that they are very fortunate. Knowledge has accumulated and spread across the world generation by generation. This long-term process of gestation to some extent benefits all of us. Nevertheless, knowledge has not prevailed among human beings so far and the real knowledge economy, indeed, has not yet come. The attainability of the critical accumulation of knowledge that occurs in the breaking generation cannot, however, be warranted.

To maintain a sustainable society with efficient use of resources, it is necessary to achieve a more equitable distribution of wealth. In this regard, Mill’s concept of the stationary state — no one is poor, no one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward — is unequivocally consistent with modern expositions of sustainable development. Mill’s perspective is very much closed to the ethical-utopian perspective on sustainable development. This perspective on sustainable development emphasizes the emergence of new individual value criteria and new social objectives. Furthermore, it encourages altruistic behavior on the part of modern citizens (in contrast to individual egoistic
behavior). Undoubtedly, we had better rid ourselves of growthmania and strive for a new knowledge economy from the perspective of a sustainable future.

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References


Figure 1. The State of Knowledge

- MC: underpaid & overenjoyed generations
- MB: overpaid & underenjoyed generations

As of now: breaking generation

Human Generations

(milieu or niche for developing Mill's Stationary State)