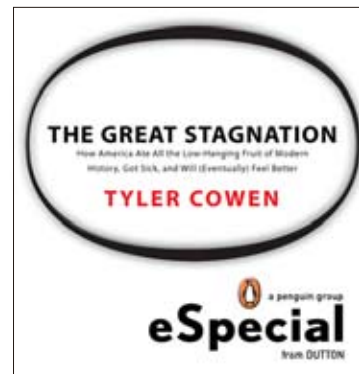


SPACE JAPAN BOOK REVIEW

From a satcom researcher point of view

Reviewer: Takashi Iida, Editorial Advisor



Tyler Cowen: "The Great Stagnation", Penguin, 2010.

<http://us.penguingroup.com>

This book was introduced into an economic commentary in the Nikkei Shimbun Newspaper on March 7, 2011 [1], and this book seems to be "the hottest economic book" for persons concerned with the U.S. policy formation and the economic press. A related discussion seems to be performed in Web flourishingly afterwards. Then the reason why it is taken up in this column is because there is a description of technological innovation policy and space development, although the effect of space development is described to be relatively negative. Let's introduce it now.

The author Tyler Cowen is born in 1962 and is an economics professor of Virginia George University [2]. This book is an economic book and its content is slightly difficult for a satellite communications researcher, but I will pick up an interesting parts and introduce them below.

At first the author assumes that the stagnation of economy such as an American financial crisis is caused by the loss of "Low-Hanging Fruit" which is the condition that has supported prosperity of U.S. economy [1]. The low-hanging fruit is consisted of ① free land, ② smart, uneducated kids and ③ technological breakthroughs (innovation). ① became extinct by the end of the 19th century, and ② and ③ are decreasing now. It is apt to be preoccupied with a short-term change by a current economic crisis, but it is a big meaning for the American future in the long term that these fruits were lost. ① may be understood easily. As for ②, many potential geniuses did not receive enough education in the early of the 20th century, but it is for it to have brought big productivity increase easily to let them go to a high school from such an environment. ② is the subject of this column as follows.

In the U.S.A., the economic growth rate slows down in substance after 1973, and the cause is due to the decline of innovation. The economic recovery for three times since 1990's was performed with jobless. It was easier for an average person to create important innovations in the 19th century than the 20th century and amateurs were able to do it. By these innovations, the age of electricity and car is opened, the enormous employment was born. Life is better and we have more stuff. Although the life became convenient very much, the wonders, however, portrayed in *The Jetsons*, the space-age television cartoon from the 1960s, have not come to pass. We won't live forever or visit a Mars colony.

Everyone of a certain age thinks of the 1969 moon landing as a symbolic dividing line between the new technological era and the old. At the time, the moon landing occasioned great excitement and it was heralded as the beginning of a new age. But it's more properly seen as the culmination of some older technological developments. What did the moon landing lead to in our everyday standard of living? Teflon, Tang (a health drink used in Mercury Project), some amazing photographs, a better knowledge of astronomy. In other words, it wasn't like the railroad or automobile, and the pace of change has slowed down compared to what people saw two or three generations

Average of innovation rate (the innovation number per some unit of population) reaches a peak in 1873 and makes a sudden drop after approximately 1955. We must use more expenses to achieve innovation, and "the patent per researcher" dropped in the 20th century.

The section of health, medical care and education regarded as a current growth section has many problems. Participation of government section is big, and it is nothing but in many cases that scale spreads because expense increases. Productivity in such a section is low. About whether health care was really valuable, results of research of Rand Corporation [3][4] were quoted, which gave thousands of Americans 100 percent free medical care. The group with free care consumed 25-30 percent more medical services. Yet, the free health care didn't make people any healthier.

Creating innovation became difficult, but Internet has a different aspect. "Amateur" carried a big role to realize the method to link human beings together through a mix of Moore's Law and new medium of Internet. In this regard, the Internet is very much like the early years of the British industrial revolution. But Internet did not change our life unlike electricity. Although Internet produces some profit, it does not produce the employment and income unlike the past innovations. In addition, it is difficult to measure productivity of Internet because many of products of Internet are free of charge. Therefore, there is the low-hanging fruit in our heart, in a laptop and it takes new form and appears from the unpredictable field. In other words, the Internet is a free space for intellectual and emotional invention, a kind of open-ended canvas for enriching our interior lives. Internet may be useful for profit generation more in the future, because Internet simplifies scientific learning and communication more and may let productivity of a scientist increase in an unexpected area. The author insists in this meaning that a social position of a scientist should be put up.

This book describes some persons whose name is not so familiar in Japan, but probably be familiar in the U.S.A. Such information is helpful for us. For example, in conjunction with a claim of necessity to raise a position of a scientist, a novelist / a dramatist / a scriptwriter / a philosopher Ayn Rand is introduced. She published her philosophy novel "Atlas Shrugged" in 1957 [5], and she is still popular in the U.S.A., and tends to be referred for Republican progress pro-tea party of mid-term election of 2010 by the host of conservative radio show, and there are still many enthusiastic fans [6].

The reviewer considers that the future research and development should be conducted in consideration of information about the above-mentioned innovation. Finally, I purchased this book via Internet because it was released only in electronic edition. Its download was set for four days to be possible, and it was copy-protected. In order to read this electronic version, software of Adobe Digital Editions is needed for PC and software of Bluefire Reader is required and these softwares can be gotten in free. But there is a problem that one of figures in the book can not be seen by Adobe Digital Editions while it can be seen by Bluefire Reader. Therefore, the electronic edition still has inconvenience slightly. In addition, a hard cover version of this book was released recently and the translation into Japanese seems to be released soon.

References

- [1] Masazumi Wakatabe: "Economic Commentary; [Economic Trend] Was the source of growth lost? Discussion on decline of innovation, Enhance 'Anticipates' by mobilizing the policy", Nikkei Shimbun Newspaper, Mar. 7, 2011 (in Japanese).
- [2] http://en.wikipedia.org/wiki/Tyler_Cowen (in Japanese).
- [3] Alex Abella: "Soldiers of Reason: The RAND Corporation and the Rise of the American Empire", Houghton Mifflin Harcourt, 2008.
- [4] Takashi Iida, "[Space Japan Book Review -From a satcom researcher point of view] Alex Abella, Soldiers of Reason: The RAND Corporation and the Rise of the American Empire", Space Japan Review, No.71, Dec./Jan. 2010/2011.
- [5] http://en.wikipedia.org/wiki/Ayn_Rand
- [6] Ayn Rand: "Atlas Shrugged", New York: Dutton, 1957.