THE JUSTIFICATION OF UTILIZING THE COLLECTIVE WISDOM INTO POLITICS - AFTER FUKUSHIMA

Kazuyuki Ikko Takahashi
Meiji University

INTRODUCTION

Japanese society's confidence in the safety of nuclear power generation was shaken radically by the catastrophic accident at the Fukushima No.1 nuclear plant last year, which also evoked serious public distrust of politicians, bureaucrats and scientists. At this moment (May 2012) Japan has no single running reactor, although it had the third largest number of reactors in the world before 3.11 last year. The government had planned to restart idled reactors as early as possible, which eventually evoked angry reactions from the public. The outlook for the resumption of reactor operations remains complicated and difficult to see. We should make a decision whether to make a nuclear-free society or not. But the Noda administration has failed to make any meaningful change in the reality of nuclear power generation in Japan.

What needs to be done to stop growth of public distrust and restore their credibility with the people is, firstly, in-depth discussion among citizens. The government should make serious efforts to promote policy debate involving ordinary citizens. Various forums should be established for discussions. What's more, the concept of Deliberative Polling, which represents those people who can deliberate together, is proposed. These should be called the deliberative democracy.

The second proposal is that: we should make use of the collection of twitters, for example, into politics. Many are twittering over the problems of restarting idled reactors, which could be the wisdom of crowds. The debates in the Diet or above mentioned public forums should utilize the results of those collections. I would like to call it the collective wisdom democracy.

But important is its justification: why can or should we use the collection of the twitters? Is it "wisdom"? This paper highlights the explanation of the collective wisdom with some mathematical models and the relation between the deliberative democracy and the collective wisdom democracy.

There have been three books on the collective wisdom. The first is H.Reingold's *Smart Mobs* (2002), which demonstrates how emergent collections of people can carry out tasks and can solve problems. This book dealt with mobile Net, tiny multimedia Internet

terminals. Those smart mobs gathered together and, for example, in Manila they overthrew the presidency of President Estrada in 2001.

The second is J. Surowiecki's *The Wisdom of Crowds* (2004), which describes how the crowds of people can make accurate predictions. Its proposal is that: under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them. Through the collections of ideas often emerges the wisdom of crowds.

The third is S. Page's *The Difference – How the power of diversity creates better groups, firms, school, and societies –* (2007), which shows that diversity produces benefits. People have different perspectives, interactions, heuristics, and predictive models. If we combine those, we can get better outcomes through diversity. The book uses many mathematical models and explanations to show the benefits of the collective wisdom.

Mobs, Crowds and diversity are key words in this topic. Then, we can utilize those results into politics (note). Here twitter is an online social networking service. We can tweet, send and read text-based posts up to 140 characters. After it launched 2006, it gained worldwide popularity, with over 140 million active users in 2012. In Japan, more than hundreds of thousand people tweet daily over many topics, such as restarting idled reactors and nuclear-free society. Those collections of ideas are smart. Sometimes they are more accurate than what they have been thought of. Better outcomes emerge through diversity. That is the first, but not so robust justification of the collective wisdom. It is shown that we can use the collective wisdom, but it has not yet justified that we should use it into politics.

We can demonstrate further the justification of the collective wisdom using evolutionary game theory or complex network theory. We can also use nonlinear dynamical systems theories and agent-based models (Epstein 1997). Percolation theory and Schelling models may be useful (Takahashi & Murai 2006, Schelling 1978). Here we would like to use Standing Ovation Problem (SOP) as one of those diffusion theories (Izquierdo 2009a, 2009b, Miller & Page 2004, 2007).

The modified SOP can be stated as: A piano concert ends and the audience begins to applaud. A couple of audience members may decide to stand spontaneously. Here a standing ovation could ensue or fizzle. Each audience member must decide whether or not to stand. Many would decide to stand on the basis of personal choices of the individuals' own assessment of the quality of the performance. But some respond to the behavior of others in such situations.

Utilizing the Collective Wisdom into Politics

A mathematical model of standing ovation might be demonstrated as follows. The number of audiences who stand and applaud depends on the actual quality of the performance. If the initial group of people standing exceeds a threshold (α percent), then increasing number of audience will stand to applaud, and then, the group of people standing exceeds another threshold (β percent), the pianist would decide to respond an encore. When the percent of audiences standing does not exceed β percent, they fizzle gradually.

It focuses on the macro behavior that emerges from micro-motives.

i)   Preferences are modified and transformed through interacting with each other, that is: interacting locally.
ii) These changes are made to be visible, or into public.
iii) Feedback effect, that is, both the effect from the individuals' preferences into the whole and the adverse effect can be seen. The exchange between the whole and individuals grows increasingly to emerge some property of wholeness. Miller and Scott (2007) explain that if the initial group of people standing exceeds α percent, then everyone will rise. Our explanation is that not 100% audience will necessarily rise, but increasing number of audience will stand to applaud, and then, the group of people standing exceeds β percent, the pianist would decide to respond an encore. That is the property of wholeness.
iv) The global behavior restricts all audience. Everybody could enjoy listening encore.

The same goes for the collections of twitters. i) Those chains of twitters are modified and transformed, and ii) these changes are ostensive. iii) Feedback effect can also be seen. We can justify the utilization of twitter into politics in these three points. We can tweet on the issue of nuclear power generation. This collection of wisdom is not only accurate, but also justified.

Then, if those results are made use of in decision-makers, such as legislatures and courts, they are beyond justification. They are legitimate to restrict all members of nation.

We would like to utilize the collective wisdom into politics. It shows the provisional common sense among citizens at that time, which can play a supplementary role of the legislature composed of elected representatives. Much the same is applied to the deliberative democracy.

Especially those approaches, the collective wisdom democracy and the deliberative

democracy, are useful when elections don't necessarily guarantee the best choices for specific policy issues, such as nuclear power, because politicians are constrained by the elections. They cannot necessarily discuss matters deliberately.

The deliberative democracy has been proposed as an alternative to the aggregate democracy, which is based on mere aggregations of people's preferences. Through deliberation, deliberative democracy could prevent politics from leading to populism.

The deliberative democracy has been proposed also as an alternative to the interest group democracy, which is based only on the groups' interests. Polyarchy is the most typical idea (Dahl 1971), which may think politics as mere expression of interests. Deliberation can modify and transform those preferences into public. It can make visible citizens' interests and emotions and their changes, through which an outcome could emerge.

One of the most prominent theorists is J. Fishkin, who originated the concept of Deliberative Polling (DP). According to him, DP works like this: A random sample of citizens is chosen. They attend meetings and deliberate together and become more informed. Then their opinions are gathered. Thus DP represents what the public would think if they become seriously engaged and informed and express what they really think about after due reflection.

The point is that authentic deliberation is not merely the aggregation of preferences that occurs in voting and public opinion poll. But where is the difference between them.

Preferences are based on people's interests and emotions. They are gathered together, and then, they are deliberated with reason. Thus something has emerged through the mere aggregation of preferences, after those preferences are modified and transformed.

Then we can compare deliberation with collective wisdom. The former is done through discussions and deliberation. The latter is done thorough collective wisdom and diversity. We can call both mechanisms emergence.

It also focuses on the macro behavior that emerges from micro-motives. Macro behavior is called as deliberative public opinion, which is not mere aggregation of people's preferences.

i)   Preferences are modified and transformed through discussion, that is: interacting locally.
ii)   These changes can be perceived, or into public.
iii)   Feedback effect can be seen. The exchange between the whole and individuals' preferences grows increasingly to emerge some property of wholeness.

    (Totalitarianism needs all members' agreement, but our explanation is that not 100% members will necessarily agree, but increasing number of members will agree, and then, the number of people who agree exceeds some threshold, the opinion should affect legislature to set a rule. That is the property of wholeness.)

iv)   The global behavior restricts all members. Everybody must obey the rule.

The deliberative democracy is compatible with both representative democracy and direct democracy. Some propose that principles of democracy apply to decision-making bodies, such as legislatures and courts (Steiner et al., 2004). In contrast, I. Young insisted that principles of deliberative democracy apply to groups of ordinary citizens who are involved in demonstration on the street and town meeting (Young 2001).

The deliberative democracy can be also emphasized in both making consensus and making differences. The latter is argued by C. Mouffe (1993) and W. Connolly (1991). Here preferences are gathered together and they are modified and transformed through the deliberation, but not result in consensus, but in group polarization. Those political scientists highlight modification and transformation of preferences.

There have been so many arguments on the deliberative democracy for those twenty years in political science. In spite of much optimism, there have been arguments filled with so much frustration, failure and feeling of powerless. It is often said that more trivial, more successful, because many people can discuss over those trivial matter, but more important, less successful, because those who have power would make a monopoly of the interests of those important matters.

Another weak point of the deliberative democracy is that the difference of the preferences remains and any consensus would not emerge.

Still, it can make up for the shortcomings of the traditional policymaking process to some degree. It can make visible citizens' interests and emotions. It is not mere aggregation of those interests and emotions, nor an expression of those. We can see them clearly and we can modify and transform them through careful and in-depth policy debate. In this sense, the deliberative democracy is intrinsically democracy itself.

Much the same effect could be anticipated in the collective wisdom. The results of twitters would not make decisions of whether to restart the idled reactor or make Japan nuclear-free, but it would contribute much for legislature to decide or for ordinary people to attend the politics.

NOTE

Japanese philosopher H. Azuma proposed that we can utilize twitters into politics.

Utilizing the Collective Wisdom into Politics

Japanese historian of thought, N. Koyasu also proposed that twitters are useful instruments for publishing our own opinions. This paper aims to justify these ideas.

REFERENCES

Azuma H. (2011), *General Will 2.0 –Rousseau, Freud and Google-* (in Japanese), Kodansha

Connolly W. E. (1991), *Identity/Difference*, University of Minnesota Press

Dahl R. A. (1971), *Polyarchy*, Yale University

Epstein J. M. (1997), *Nonlinear Dynamics, Mathematical Biology, and social Science*, Addison-Wisley Publishing Company

Fishkin J. S. (2009), *When the People Speak –Deliberative Democracy & Public Consultation-*, Oxford University Press

Izquierdo, L. et al. (2009), "Techniques to Understand Computer Simulations: Markov Chain Analysis", *Journal of Artificial Societies and Social Simulation* vol. 12, No.16, http://jasss.soc.surrey.ac.uk/12/1/6.html,

Izquierdo, L. et al. (2009) "Miller and Page's Standing Ovation Model", http://jasss.soc.surrey.ac.uk/12/1/6/appendixB/MillerPage2004.html

http://luis.izqui.org/models/standingovation/

Koyasu N. (2012), "Twitters as civil intervention to political situation", A *year after 3.11* (in Japanese), Ochanomizushobo

Miller J. & S. Page (2004), "The Standing Ovation Problem", *Complexity*, vol.9, No.5,

Miller J. & S. Page (2007), *Complex Adaptive Systems -An Introduction to Computational Models of Social Life-*, Princeton University Press

Mouffe C. (1993), *The Return of the Political*, Verso

Page S. (2007), *The Difference – How the power of diversity creates better groups, firms, school, and societies –,* Princeton University Press

Reingold H.(2002), *Smart Mobs*, Basic Books

Shelling T. C. (1978), *Micromotives and Macrobehavior*, W. W. Norton & Company

Steiner J. et al., (2004), *Deliberative Politics in Action –Analyzing Parliamentary Discourse*, Cambridge University Press

Surowiecki J. (2004), *The Wisdom of Crowds,* Anchor Books

Takahashi K.I. & R.Murai (2006), "Social Percolation in Relations between Activists and Supporters", *Complexity*, Vol.11, No.6,

Young I. M. (2001), "Activist Challenges to Deliberative Democracy", *Political Theory* No.29