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The VSM as a foundation for systems in the 21st Century

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1. The challenges to society at the beginning of the 21st Century demand to revisit Norbert Wiener's prediction of a "worldwide state in the next century". He made this prediction in his book "Cybernetics and Society" in the early 1950s where he stressed the key role of the Information Technologies for the "Worldwide State". Now the time has come for this. On the one side today's ICT should permit a "nervous system" for a global organization of human activities. On the other side technical, social, ecological and climate challenges are becoming sharper and there is a need to revise old fashion institutions to solve humanity's deep problems.
2. Wiener did not provide detailed arguments for his prediction and it was left to Stafford Beer the proposal for new organizational forms. The time has come to revive his heritage. Beer not only developed the Viable System Model (VSM) theory but realized it in practice in the CyberSyn project. It is significant that the Chilean Government gave a grant for the "reconstruction" of aspects of the CyberSyn project in 2007. This reconstruction is being exhibited at ZKM in Karlsruhe, Germany since October 2007 and was discussed at the Transmediale'08 event in Berlin last February. (<http://www.syncho.com/pages/index.php?menu=s&mm=s&tex=s&sm=au>).
3. Yet in the early 90th in his "World in Torment" paper Beer wrote with great skepticism about the organization of modern society. With many arguments he wrote: "I estimate that more human beings are enduring agony today than ever before; the number could be greater than the sum of sufferers throughout history. I speak of starvation and epidemic; war and terrorism; deprivation, exploitation, and physical torture. I repeat the word agony; I am not talking about 'hard times' ". Also he wrote: "Soviet communism has accepted its own demise; Western capitalism has not accepted it yet." From wider point of view old styled institutions such as the UN could be radically changed according the principles of the VSM.
4. Taking into account the "recursive" structure of the VSM with the same System1-5 hierarchy at all structural levels there is a great need to use its ideas for lower levels of "recursion" constituting the "humankind's global problems". An implementation of the VSM at these levels could be a solid foundation for more global tasks. Such very hot topic to improve current business analytical tools for top management has close relation with VSM ideas and activities. Despite OLAP's continued growth at a rate faster than most other enterprise software, there is no reason to be optimistic about their impact in improving the viability of enterprises. Still performance management tools are not using features such as "real-time dashboards", "alerts" to monitor "suspicious situations" etc. However these were features of the VSM based CyberSyn project about 35 years ago - <http://en.wikipedia.org/wiki/Cybersyn>. In the late 80's and early 90's the operational director of CyberSyn, Raul Espejo (<http://www.cybersyn.cl/ingles/cybersyn/team.html>), developed the CyberFilter software package with the still limited PC capabilities of those years (<http://www.syncho.com/pages/pdf/Cyberfilter%20manual.pdf>). Modern ICTs, such as Internet mobile devices and wire free communication networks are capable of a much more sophisticated development of the VSM ideas, for example the development of "virtual" distributed 'operation rooms', which were at the "heart" of the CyberSyn project (<http://www.cybersyn.cl/ingles/cybersyn/opsroom.html>).
5. The VSM can be useful also for the development of ICTs. The challenges concern not only the new generations of ERPs and related tools (e.g. new generations of software for performance management in "real-time", integration of MES and ERP etc.) but more significantly the development of "autonomic" programming systems too (<http://www.zurich.ibm.com/pdf/ebizz/idd-ac.pdf>). Also there is a great need for new generations of Autonomic Intellectual Systems (AIS) (new generation of Robots ahead of all). It is not accidental that students of the the AIS have visited the Cybersyn "reconstruction" presentation at the YOU_ser exhibition at Karlsruhe in October 2007 - http://picasaweb.google.com/Leonid.Ototsky/CybersynAtTheYOU_ser2007 .
6. The above are a few examples that illustrate the need to review Stafford Beer's heritage in the benefit of humankind's sustainability - <http://www.ototsky.mgn.ru/vsm/> .
7. The Challenge today is to implement, with our current methodological and technological developments, a "global" project like that that was developed in Chile in 1972- 1973- <http://ototsky.mgn.ru/it/lessons.htm> .

