Newsletters Archive: http://www.xtriz.com/newsletter/

Dear Innovators,

It has been a while since a release of our previous newsletter in PDF format. Despite the economic crisis, these two years were filled with travel and all kinds of projects and activities in different countries barely leaving spare time for any other things. It is also a good news that TRIZ has not just survived the crisis but expanded and strengthened further: 2010 was featured by launching TRIZ conferences in India, Israel, Korea, Taiwan.

And indeed, one more major event of the year is a forthcoming Global ETRIA "TRIZ Future" Conference in Bergamo, Italy which will be held on November 3-5, 2010. This year we added a format of a short paper, allowing a broader audience to present their results and share their ideas. This year more than 50 presentations are scheduled during the conference. I will present a talk "TRIZ and Systematic Business Model Innovation" at the first conference day, November 3. I hope to see you at the conference!

At ICG T&C together with our colleagues and customers we also have been working on improving and extending xTRIZ package. In addition to the developed earlier Root Conflict Analysis (RCA+) we introduced two new tools: Value-Conflict Mapping (VCM) to identify contradiction trees as a part of analysis of complex technical and business systems, and Multi-Screen Analysis (MSA) based on a classical 9-screen TRIZ approach to explore a development potential of technical, business as well as social systems. A link to the article on VCM you will find below in this newsletter.

In addition, during last two years we expanded our training activities by establishing a global network of accredited ICG T&C trainers in different regions of the world. In total, we trained and certified about 700 people in TRIZ and xTRIZ during 2 years, either in basic or advanced programs.

There is still a chance to participate in our professional TRIZ training courses by me which will be conducted in October-December of 2010 in the Netherlands. Please have a look on the next page to find a schedule.

We also intend to introduce a modular remote training next year. If anyone is interested, please let me know.

In this newsletter you will find information about our new book release, experience with running the TRIZ course at the University of Twente, our developments in Jordan, references to new articles from ICG T&C, and some other interesting links, not only about TRIZ but about innovation in general.

All links in this newsletter are clickable. If there is a problem with clicking on a link or it brings you the a wrong page, simply copy and paste it to your web browser.

I wish you successful innovations!

Valeri Souchkov
valeri@xtriz.com

TRIZ & SYSTEMATIC INNOVATION TRAINING FROM ICG T&C, FALL 2010

Do not miss! In Fall 2010, ICG T&C organizes the following public courses in the Netherlands (all courses are conducted in English):

4-day Extended TRIZ and Systematic Innovation for Business and Management (for starters or familiar with the TRIZ basics): Training and certification

http://www.xtriz.com/Training/businessExtended.htm

This unique course focuses on understanding how the basic principles of TRIZ and Systematic Innovation are used in business and management, and learning techniques which can be put to everyday practice to generate new ideas for business products, services and resolve management conflicts.

October 12-15, 2010
Utrecht, The Netherlands

5-day Advanced TRIZ and Systematic Innovation for Technology and Engineering (for those who are familiar with TRIZ basics): Training and Certification

http://www.xtriz.com/Training/technologyAdvanced.htm

Intensive 5-day learning and practice with Trends of Technology Evolution, Function Analysis, 76 Inventive Standards, RCA+, ARIZ. If you do not familiar with TRIZ basics, we can help you to gain the needed knowledge before the course.

November 15-19, 2010
Utrecht, The Netherlands

One-Day Systematic Creative Imagination Development
http://www.xtriz.com/Training/cid.htm

During this workshop a number of techniques for systematic development of creative imagination are explained and practiced.

December 1, 2010
Utrecht, The Netherlands

More details about each course and registration can be found at http://www.xtriz.com/Training/. For further details, please contact us at info@xtriz.com .

NEXT TRIZ CONFERENCES AND EVENTS

TRIZCON 2010 in USA
October 7-8, 2010, Dayton, Ohio, US

http://www.aitriz.org/

ETRIA Global Conference TRIZ Future 2010 in Italy
November 3-5, 2010, Bergamo, Italy.

General information: http://tfc2010.unibg.it/

Valeri Souchkov will present "Business Model Innovation and TRIZ" at the first conference day, on Nov. 3.

The 2nd International Conference on Systematic Innovation (ICSI) in China
May 26-28, 2011, Shanghai Jiao Tong University (SJTU), Shanghai, P.R.C.

General information: http://www.systematic-innovation.org/icsi2011/CFP.htm

NEWS FROM ICG T&C (xTRIZ)

Our New Book (in German!)

We have great news for anyone who is interested in TRIZ and reads German. In November, our new book is due to be released by Hanser Fachbuchverlag:

Systematische Innovation: TRIZ-Anwendung in der Produkt- und Prozessentwicklung
By Karl Koltze & Valeri Souchkov
350 pages
Hanser Fachbuchverlag (4 Nov. 2010),
ISBN-13: 978-3446421325

This book was written in cooperation between Prof. Dr. Ir. Karl Koltze (Niederrhein University of Applied Sciences) and Valeri Souchkov (ICG T&C). It presents TRIZ from the viewpoint of the teaching experiences of the authors and targets at providing a reader with an overview of modern TRIZ, its techniques, roadmaps of using TRIZ tools for executing specific innovative tasks, as well as connections between TRIZ and other methods.

More details and ordering can be found at Amazon.de:

http://www.amazon.de/Systematische-Innovation-TRIZ-Anwendung-Produkt--Prozessentwicklung/dp/3446421327/

An article on TRIZ in Intermediair

The Dutch weekly "Intermediair" (September 2, 2010) published an article dedicated to TRIZ and based on conversations with Valeri Souchkov (ICG T&C) and Jacques Stevens (Stevens Ide Partners). Although TRIZ was introduced in the Netherlands quite a long ago, it is still surprising how little it is known among engineers and scientists in the country. Note that the article is in Dutch.

Full text of the article is available at:

http://www.intermediair.nl/epaper/2010/35/#/32/

Awarding ICG T&C Accredited Trainer

With a goal of further dissemination of our TRIZ and xTRIZ training programs, we continue to expand our Global Network of Accredited ICG T&C Trainers around the world.

This year we were happy to award a title of "Distinguished ICG T&C Trainer" to Dr. Saleh Al-Zahrani, Professor of King Abdulaziz University in Saudi Arabia for his significant contribution to training and certifying in ICG T&C training programs in Saudi Arabia.

Prof. Dr. Saleh Al-Zahrani

"TRIZ Fundamentals" Course at the University of Twente

In 2009, a new official course "TRIZ Fundamentals and Practical Applications" was launched at the University of Twente in the Netherlands. The course is for B.Sc and M.Sc students of engineering and technical disciplines and has a non-typical format: it is a "full immersion" two-week summer course (80 hours) with a follow-up industrial extension (additional 52 hours). While I deliver major part of lecturing, both Dr. Tom Vaneker and Dr. Wessel Wits of the University of Twente assist me during the course. Completion of the course provides 5 European Credits for students in total.

The program is based on both classical TRIZ and newer xTRIZ tools, and includes general foundations of modern innovation, TRIZ basics, Ideality, Multi-Screen Thinking, Resources, Models and Trends of Technology Evolution, RCA+, Function Analysis and Idealization, Inventive Principles and Inventive Standards, Value-Conflict Mapping, ARIZ, Creative Imagination techniques and development of innovative thinking skills, evaluation techniques, aspects of TRIZ use and implementation.

Each course day is split to two large parts: lectures and practical assignments. In addition, every morning, a selected group of students (2-3 persons per group) briefly presents results obtained during practical work made during previous afternoon.

In July of 2010, the course "TRIZ Fundamentals" at the University of Twente was delivered the second time. As in 2009, it included 80 hours of studying the TRIZ theory and practicing with modern and classical TRIZ tools. But in fact, in reality it took more than 80 hours: since students spent their afternoons each day working on the assignments, it took them more time than was planned for some assignments - sometimes I received e-mails with questions from students around 11pm.

Looking at the results of the course, I feel very good. First, in 2010 the number of students doubled compared to 2009. Second, each assignment (in total, there were 8 different assignments for each group of students) was done quite well with nice presentations. And finally, almost every student evaluated the course either "high" or "very high". Looking at a seeming complexity of TRIZ, such high marks were above my expectations.

Among the topics which students liked the most, were Root-Conflict Analysis, Inventive Principles, Inventive Standards. Almost everyone mentioned them in final evaluation sheets. Although all the students managed quite well with ARIZ, they found it less attractive (except the method of Miniature Dwarfs or Little Men). It is understandable: while being a "heavy artillery" of TRIZ, ARIZ requires patience when we "play" with different problem formulations to fight our psychological

inertia. However this process gets quite fuzzy sometimes, especially if a problem does not fit exactly the common ARIZ format and has to be reformulated several times.

During the next phase starting this fall, students will use knowledge they acquired to help with real-life innovative projects at companies: either solving a problem which requires an inventive solution, or participating in innovative product development with the use of TRIZ. Several industrial companies around already expressed their interest in providing the students with real-life assignments.

TRIZ Cafe

On Wednesday, November 11, 2009 we had another meeting of TRIZ Café at the hotel "Eindhoven", at the outskirts of the city of Eindhoven. Since a primary goal of our TRIZ Cafe meetings is to bring together people who are interested in TRIZ to get to know each other and share knowledge and ideas, we did not have a fixed pre-set agenda except starting and finishing times and some presentation titles, and thus preferred to make our decisions "on the fly" depending on wishes of the participants.

In total, there were 20 participants representing 16 different organizations, including Delta Electronics, Evonik Colortrends, Sioux Embedded Systems, Stork Food Systems, Océ Technologies, Sensata, TNO Science and Industry, University of Twente, and smaller companies. There were more people on the list, but not everyone could make it.

After starting and spending approximately two hours for coffee/tea, meetings, talks, and introductions, we switched to the presentations prepared by the participants. First, I made a presentation about a link between TRIZ and Creative Imagination Development (CID). Although CID used to be a very important part of TRIZ education during the "Altshuller's TRIZ era", lately it has been paid less attention due to a general demand within industry for "fast learning". But how are we going to solve complex creative problems without creativity? Thus I presented my vision of how CID techniques could be coupled with principles of "power innovative thinking", and how these techniques could boost and develop further our innovative thinking skills and enhance the use of TRIZ methods and tools.

Next, Guido Giebens (Antrim, Antwerp) presented a board game "ANTRI3" which his company developed on the basis of TRIZ. The game uses many TRIZ concepts (such as IFR, Su-Field Modeling, etc.) and is used to enhance creative teamwork during innovative projects. An idea of a TRIZ-based game is not new, but it was quite inspirational to see how a strategic approach to "walking towards a solution" was implemented by combining fun and "serious TRIZ".

Then we decided to switch from presentations to something new, which we called "Express TRIZ Case". In short, it is one-hour exercise on solving a real problem which is brought to the session by one of the participating organizations. During the session, all other TRIZ Cafe participants take part as well – and it does not matter if they are TRIZ newcomers or TRIZ professionals. One of the prerequisites of such exercise is that no one (except a problem owner) knows in advance what a problem will be.

We selected a problem brought by Stork Food Systems which was related to food processing industry. Of course, one hour is too short to go through the entire TRIZ process, but nevertheless we managed to use Root Conflict Analysis to quickly decompose the problem to underlying contradictions, and then inventive principles,

Ideal Final Results, Modelling with Miniature Dwarfs, and inventive standards to propose a number of new innovative solution concepts. Unfortunately, we cannot tell more to general public about the problem and solutions found since all participants agreed for confidentiality – and as Koen Arends, Innovation Manager of Stork Food Systems said after the session, one or two ideas generated were of a high potential to be patented and implemented.

I personally liked this session since it demonstrated the power of TRIZ to attack complex problems in fast and efficient way if we follow a predefined TRIZ process and let everyone present in the room to be involved. Although in the very beginning of the session, after formulation of the problem there were some attempts of brainstorming and directly jumping to solutions, it became very quickly clear that we actually, were jumping to a dead end. Therefore we had to stop it and drive audience along the TRIZ process – and it worked. As expected, most effective solution ideas emerged after we defined a core physical contradiction, operational zone and operational time (which one would never do without TRIZ). As one of participants from Stork Food Systems noted, that during the first 15 minutes of generating ideas with TRIZ, we reproduced one of the ideas to find which Stork spent three years (without TRIZ). Thus it was a clear demonstration how TRIZ could drastically help accelerating a process of finding high-quality inventive ideas.

After a short break, we continued with presentations. Dr. Wessel Wits (University of Twente, Enschede) presented a program and results of our two-week "full immersion" TRIZ Summer Course which was introduced this summer at the University of Twente. He also demonstrated some examples of problems which students were solving during the course and some new ideas of solutions found by the students (and the TRIZ Cafe audience really liked these examples).

And the last presentation of the day was made by Albert van der Kuij, business development and standards engineer from Sensata, Almelo. He shared his experience gathered during last 5 years of application TRIZ within the company focusing on how TRIZ can be embedded to projects, and focused on the links between Six Sigma, QFD and TRIZ. He also proposed his vision of how QFD, FMEA, TRIZ and Six Sigma's DMADV process can be used at each step of new product development: from ideas conception to product supply.

As a conclusion, I believe that our second TRIZ Café was a good step towards strengthening and expanding our TRIZ network. Modern TRIZ is not an easy subject to learn and use so we all need such meetings to share our knowledge and experiences, to get to know about new TRIZ developments and tools, especially from practical point of view. What I really liked was to see how enthusiastic and energized people felt during the meeting. I hope these energy and enthusiasm will stay with us and grow further.

Videos of presentations from the TRIZ Café will be shortly made available together with corresponding PowerPoint slides. We will announce the next TRIZ cafe soon. Stay tuned!

Two Years of xTRIZ in Jordan

My first visit to Amman, Jordan was in April 2008, where I run a three-day public training for 25 representatives of various Jordanian enterprises. I was quite surprised by the level of TRIZ awareness in the country and by a real drive of its people to innovate.

After that event, five more public training courses in Jordan followed up in 2009-2010: three for technology and engineering and two for business and management with total involvement of over 100 people who were trained in TRIZ and xTRIZ. Based on the success of these workshops, this year the Queen Rania Center for Entrepreneurship (http://www.qrce.org/) in cooperation with ICG T&C decided to establish "TRIZMatic" institute to further promote TRIZ, xTRIZ and Systematic Innovation in the region.

I believe that the work done in Jordan during past two years will further inspire Jordanian innovators and entrepreneurs to promote and teach TRIZ further in the country.

I am very thankful to Basel Kilany, Hussein Natsheh and Mohd Khawaja from QRCE, who excellently organized my trips to Amman. And also my special thanks to Princess Sumaya Bint El-Hassan and Prince El Hassan Bin Talal of Jordan who took promotion of TRIZ and Systematic Innovation in the country very seriously.

Left: His Highness Prince El Hassan Bin Talal and Her Highness Princess Sumaya Bint El-Hassan. Right: Valeri Souchkov.

ARTICLES FROM ICG T&C

Value-Conflict Mapping
by Valeri Souchkov

To make a decision on where to innovate is not easy, especially if we have a complex technical or business system. Value-Conflict Mapping (VCM) is designed to help with identifying a strategy of innovation by extracting and linking technological, business and market contradictions. A central idea of VCM is to define how an existing technological or business product (or system) contradicts to business and market demands, trends, and requirements and develop an innovative improvement strategy. It also helps to systematically reveal "hidden" demands. The resulting map of contradiction trees help to quickly find Full article is available at:

http://www.xtriz.com/publications/Value_Conflict_Mapping.pdf

Fantogramma
By Valeri Souchkov

Fantogramma is a powerful thinking tool for producing new science fiction and fantasy ideas in a systematic way. The idea of Fantogramma was originally proposed by the founder of TRIZ Genrich Altshuller as one of the techniques designed for developing and improving personal creative skills and later became a part of the creative imagination development courses within the TRIZ community. Read the full article at:

http://www.realinnovation.com/content/c091012a.asp

MORE TO READ AND WATCH: TRIZ

Report on TRIZ Symposium 2009 in Japan
Toru Nakagawa

Find a comprehensive coverage of TRIZ Symposium in Japan at Toru Nakagawa's website (if the link below does not work, copy it to you browser address field):

http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/eforum/e2009Forum/eTRIZSymp2009Rep/eTRIZSymp2009TNRep.html

First Israeli Conference Report
By Issak Bukhman

http://www.triz-journal.com/archives/2010/03/02/

TRIZ India

TRIZ India is a social platform uniting TRIZ professionals and enthusiasts living and residing in India - and not only. All communication is in English.

http://trizindia.org/

TRIZ Groups on LinkedIn

LinkedIn quickly gains a reputation of a leading global business network. There is a number of groups which discuss TRIZ. Search for the following groups if you wish to join:

Dutch TRIZ community
Innovative TRIZ Innovation Tool Expert Network
Sustainable Innovation
TRIZ Based Software
TRIZ Developers
TRIZ Practitioner's Exchange
TRIZ

MORE TO READ AND WATCH: INNOVATION AND CREATIVITY

Executing on Innovation
Video: Vijay Govindarajan, Tuck School of Business professor, on why innovation is so hard to implement and what you can do about it. He is the co-author of *The Other Side of Innovation: Solving the Execution Challenge*.

http://blogs.hbr.org/video/2010/09/executing-on-innovation.html

The Asian Innovation Century?

http://blogs.hbr.org/anthony/2010/09/the_asian_innovation_century.html

In Search of Innovation

When companies try to come up with new ideas, they too often look only where they always look. That won't get them anywhere.

http://online.wsj.com/article/SB10001424052970204830304574133562888635626.html

Who Has Innovative Ideas? Employees.

The trick is knowing how to tap into them. One answer: innovation communities.

http://online.wsj.com/article/SB10001424052748704100604575146083310500518.html

How web video powers global innovation

Video: Chris Anderson (founder of TED) discusses how global availability of web video creates an innovation ecosystem and boosts innovation in different areas

http://www.ted.com/talks/chris_anderson_how_web_video_powers_global_innovation.html

Where Good Ideas Come From

Video: Steven Johnson shows that history tells a different story that good ideas come just from "Eureka" moment. His fascinating tour takes us from the "liquid networks" of London's coffee houses to Charles Darwin's long, slow hunch to today's high-velocity web.

http://www.ted.com/talks/steven_johnson_where_good_ideas_come_from.html

RECOMMENDED NEW BOOKS
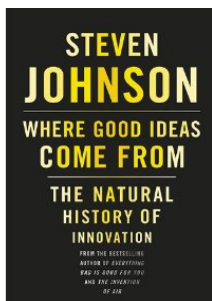
Where Good Ideas Come From: The Natural History of Innovation
by Steven Johnson
336 pages, Riverhead Hardcover, 2010, ISBN-13: 978-1594487712

In his book, the author explores factors which produce impacts on the environments where innovations are made to answer the question: "What makes one environment highly energized with creativity where new good ideas are born effortlessly and another environment lacking creativity and innovation".

http://www.amazon.com/Where-Good-Ideas-Come-Innovation/dp/1594487715
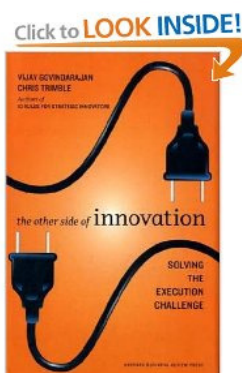
The Other Side of Innovation: Solving the Execution Challenge
by Vijay Govindarajan, Chris Trimble

240 pages, Harvard Business Press, 2010, ISBN-13: 978-1422166963
While a front-end seems to be the most exciting part of innovation where we generate bright and breakthrough ideas, innovation may not be successful without implementation. This book presents best practices from a number of successful companies and entrepreneurs which convert an idea to a successfully selling product or a game-changing process.

http://www.amazon.com/Other-Side-Innovation-Execution-Challenge/dp/1422166961/
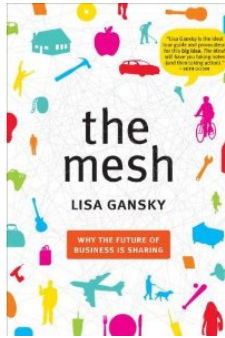
The Mesh: Why the Future of Business Is Sharing

By Lisa Gansky

256 pages, Portfolio Hardcover, 201, ISBN-13: 978-1591843719

I think this is one of the most important books on understanding how trends change in the way we do business in a modern and inter-connected world. This book is about global innovation: transition to a business model of sharing which will require more and more innovation in both business and technology.

http://www.amazon.com/Mesh-Why-Future-Business-Sharing/dp/1591843715/
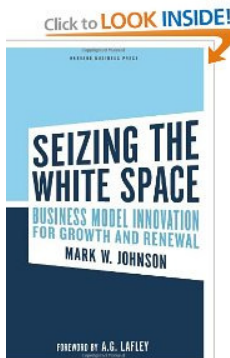
Seizing the White Space: Business Model Innovation for Growth and Renewal

by Mark W. Johnson

288 pages, Harvard Business Press, February 2010, ISBN-13: 978-1422124819

Innovation is not about technology only. Innovative ideas emerge in each area of human activity. Business is a huge area where innovations are needed to stay alive and to remain competitive. The author, a co-founder of Innosight shows how a right business model can help businesses to achieve growth and success above initially desired.

http://www.amazon.com/Seizing-White-Space-Business-Innovation/dp/1422124819/

- Newsletter Archive
- Top 12 TRIZ Questions for beginners: Part 1
- Top 12 TRIZ Questions for beginners: Part 2
- Other publications from ICG T&C: http://www.xtriz.com/publications.htm
- More articles about TRIZ can be found in freely available Online TRIZ Journal, including collection of all the articles published during last 10 years.

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