

TRIZ, CREATIVITY, INNOVATION

WWW.XTRIZ.COM

Newsletter from ICG T&C, June 2008

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



Dear Friends,

It was great to hear this spring about the success of TRIZCON 2008: one of the major annual TRIZ events conducted by the Altshuller Institute (www.aitriz.org) which was held on April 13-15, 2008 at Kent State University, USA. The event gathered 250

people, thus making the conference the largest international event up to date. This fact indicates that the worldwide TRIZ community is growing, and the TRIZ conferences become a major place for personal meetings, exchanging opinions and

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sharing ideas. Find the links to live coverage of the conference by Ellen Domb in the section "More on TRIZ" further in the newsletter.

Therefore I am looking forward to the Global TRIZ Future 2008 Conference on November 5-7 and which will be hosted by the University of Twente in Enschede, The Netherlands. This year the conference will be also supported by CIRP: The International Academy of Production Engineering. Since ICG Training & Consulting is one of the conference organizers, I will be glad if you could share with us any ideas on the conference: workshops, tutorials, or any other creative thoughts.

To learn or enhance your skills with TRIZ and Systematic Innovation, please find new dates of our public training courses on the next page. Note that this fall we introduce a new course on Root Conflict Analysis (RCA+). Since being introduced in 2004, the technique has already been tested with more than 200 real problems, and in almost each case its application led to new solutions and insights. With the help of our partners and colleagues, we have been constantly developing and improving the technique, and we believe that today it is a strong and useful tool to cope with problem complexity. RCA+ is a domain-independent technique which can be used in each area where contradictions take place, thus the course can be relevant to problem solvers from different fields.

We also decided to return to a three-day format for basic training and certification on TRIZ for Technology and Engineering, since a one-day TRIZ introduction for technology seems to be too short to grasp the essence of TRIZ and practice with its basic tools (except the Altshuller Matrix and 40 principles, of course – but they are too limited to deal with many real problems). This basic three-day course offers a complete systematic process: from a problem formulation to ideas evaluation, where each step of the process is supported with relevant tools.

We also included the "OTSM-TRIZ for Kids" workshop (trainer: Nikolai Khomenko) to our training agenda once again, based on the success of the first course which was conducted in March, 2008. See the report and some pictures from the workshop in the section "News from ICG T&C".

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

I wish you successful innovations!

Valeri Souchkov valeri@xtriz.com

PUBLIC TRIZ & SYSTEMATIC INNOVATION TRAINING FROM ICG T&C, FALL 2008

Do not miss! In Fall 2008, ICG T&C organizes the following public courses in the Netherlands (all courses are conducted in English):

One-day introduction to TRIZ and Systematic Innovation for Business and Management (for starters)

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

During this workshop, the participants learn the basic TRIZ principles, learn several basic tools to formulate and solve business and management problems involving conflicting demands.

September 3, 2008 Utrecht The Netherlands

5-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/businessAdvanced.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.

September 22-26, 2008 Utrecht

The Netherlands

3-day Basic TRIZ and Systematic Innovation for Technology and Engineering (for starters): Training and Certification

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

This workshop introduces basic TRIZ concepts, as well as a number of latest TRIZ tools which help to organize the basic TRIZ process from a situation analysis to ideas scoring and landscaping.

October 6-8, 2008, Eindhoven, The Netherlands

2-day Root-Conflict Analysis (RCA+): Training and Certification

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

This new workshop is for those willing to learn and enhance their skills with a Root Conflict Analysis: a technique to model problems containing negative or undesired effects. The technique helps to build comprehensive maps of all conflicts which prevent a problem from being solved. In addition, the TRIZ conflict separation principles are explained.

December 2-3, 2008 Utrecht

The Netherlands

2-day OTSM-TRIZ For Kids

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

A workshop for teachers and parents by Nikolai Khomenko, co-author of "Thoughtivity for Kids". The workshop includes both explanation of OTSM-TRIZ basics and extensive practice with games developing thinking skills.

October 23-24, 2008 Amsterdam The Netherlands

One-Day 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.

October 31, 2008 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.

December 8-12, 2008 Eindhoven 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.

TRIZ CONFERENCES AND EVENTS



The Fourth TRIZ Symposium in Japan

September 10-12, 2008, Laforet Biwako, Moriyama City, Shiga Prefecture, Japan.

http://www.osaka-qu.ac.jp/php/nakagawa/TRIZ/eTRIZ/elinksref/eJapanTRIZ-CB/e4thTRIZSymp2008Pre.html



ETRIA Global TRIZ Future Conference 2008

November 5-7, 2008, Enschede, The Netherlands. http://www.trizfuture.net/

NEWS FROM ICG T&C (xTRIZ)



A Brief History of TRIZ

by Valeri Souchkov

As follows from my experience, anyone who starts seriously studying TRIZ and Systematic Innovation, sooner or later starts wondering about a history of TRIZ. Why there are so many tools, what followed what? I constantly get these questions from my "students". Since there was no TRIZ timeline yet presented in English, I wrote an article "A Brief History of TRIZ" which summarizes major steps in the development of TRIZ and Systematic Innovation. In case if someone notices inconsistencies, please let me know.

http://www.xtriz.com/BriefHistoryOfTRIZ.pdf



Remote Team Problem Solving With TRIZ

Rogier de Vries, Valeri Souchkov and Jan Mannak

In this article, we share our experience with applying Substance-Field Modeling and problem solving to a non-technical problem: increasing productivity of remote teams. The case was performed for Thales Netherlands.

http://www.triz-journal.com/archives/2008/06/02/



Thinking Skills for Innovative Leadership - updated

by Valeri Souchkov

An updated version of the article "Thinking Skills for Innovative Leadership"

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



In April, 2008, we established cooperation with Queen Rania Center for Entrepreneurship in Amman, Jordan. The workshop in Amman attracted leaders of Jordan businesses interested in exploring new ways for accelerating innovation in the country.

http://www.grce.org/?p=257



On March 20-21, 2008, we run the workshop "OTSM-TRIZ for Kids" led by Nikolai Khomenko in The Hague. The workshop attracted parents and teachers interested in incorporating OTSM-TRIZ components to improve kids education and thinking skills. It was certainly an inspirational event. Nikolai has been involved to developing educational programs on the basis of OTSM-TRIZ for kids during last 20 years, and certainly two days were just barely enough to cover some parts of the programs. For those who never met the term before, "OTSM" is a Russian abbreviation which stands for the "General Theory of Power Thinking" developed by Nikolai together with Genrich Altshuller, a founder of TRIZ. However unlike TRIZ, OTSM is not restricted to specific areas like technology or business since it targets at studying and uncovering a generic process of creative and innovative thinking regardless any specific area.



First, Nikolai introduced OTSM-TRIZ approach to education and developing thinking skills. The remaining and the largest part of the workshop was dedicated to interactive sessions on the basis of "Yes-No" games: teaching how to play the games (finding right answers as quickly as possible) using OTSM-TRIZ to ask the questions. This approach is based on "thinking several techniques: dichotomy" to narrow a possible

search space; learning how to make "abstract-specific" thinking transitions to reformulate situations; and recognizing contradictions to construct exact questions. We also explored different types of "Yes-No" games, and a method for creating our own games. All the participants were enthusiastically involved to the process. Needless to say, they found that the method is not only useful for kids, and even if it can be played with kids of age as early as 3-4, we all can benefit from it.

The workshop was followed by a discussion how the material learned can be put to local educational systems and what next steps can be undertaken.

Below you can find a summary and evaluation of the workshop which was

written by one of the workshop participants, Arjanne Boerendans (Digital Knowledge). She kindly permitted to reprint her text. Many thanks, Arjanne!

After an introduction to Classical TRIZ and OTSM-TRIZ, Nikolai explained the basic concepts of OTSM-TRIZ in an educational context. In "normal" life, the usual problem solving strategy is based on trial and error. However, this has a



catastrophic effect on the way we solve problems, because it is very time consuming. As we want a single solution (not many!) in the shortest possible time, we underestimate the amount of time it takes to find a satisfactory solution.

Instead, it is important to clearly frame the starting point, in terms of

(system) environment, people, goals and constraints. Once the AS-IS situation is defined and shared among people, using problem solving tools is much more effective and solutions brighter. In other words what we have to do is to become aware of our own psychological inertia and overcome its limits.



The problem solving process requires imagination; it involves specific knowledge and analytic and synthetic skills simultaneously with creative imagination and holistic approach; it is considered as a transformation of an initial situation into the description of a satisfactory solution. When facing a problem – when you don't understand something - it is not important to think about why things happen the way they do, but how. Thus, the challenge is to

think of a way how to produce it. You have to learn how to pay attention to both details and the generalised level: zoom in, zoom out.

Education should be organised as a research game and team work. Additionally, social activity takes place during communication. In the educational domain there are many applications of OTSM-TRIZ, not only for children, but for adults as well. Kids have almost no experience they can reuse and this can be a pro. Adults have to go through two steps: (a) remove mental inertia and (b) define the right "solution space" to investigate possible solutions.

The main goal of OTSM/TRIZ for KIDS is to provide kids with some hints and tips they can easily understand to narrow the space where the solution is, so that their search can be much quicker and more effective.

After the theory, it was time for PRACTICE. We did some exercises to practice these abstractions in a very concrete way. The "Yes/No" game is the most powerful as well as easy game to play to develop the ability of thinking dichotomy. It stimulates people to ask questions that reduce the possibilities by half thus enabling them to find the solution much faster than by just quessing. Whether you play the game



with numbers 1-10 in a linear game or with objects anywhere in the universe is of no importance. It depends on the kid's age and capacities. Other games that have been practiced are riddles and story lines. It involves a lot of imagination, language etc.

The training has been a very good step after the introduction to the ideas of OTSM-TRIZ for Kids in November 2007. The participants have lots of ideas for the next steps in order to achieve the most desirable result: the availability of OTSM-TRIZ for every person.

Arjanne Boerendans

The next workshop by Nikolai Khomenko is scheduled on October 23-24, 2008, in Amsterdam.

MORE TO READ AND WATCH: TRIZ



Selected and Extended lists of TRIZ websites in Japan and in the World

Toru Nakagawa, updated May 1, 2008

During last seven years, Toru Nakagawa, Professor of Osaka Gakun University in Japan, has been maintaining the lists of TRIZ websites in Japan and in the world. Recently he informed us about a new and updated version of the list.

http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/eTRIZlinks.html



TRIZ Companies Worldwide Database

The list is prepared by Gen3 Partners and updated on March 10, 2008:

http://www.triz-summit.ru/en/section.php?docId=3979



Report on TRIZCON 2008 Conference

By Ellen Domb

It became a tradition that Ellen Domb, editor of the Online TRIZ Journal (www.triz-journal.com) provides a live coverage of the most important TRIZ events around the world. Here your can find her reports on each day of TRIZCON 2008 Conference:

- Day1:
 - http://www.realinnovation.com/commentary/archive/trizcon2008 sunday report.html
- Day 2:
- Day 3:
 - http://www.realinnovation.com/commentary/archive/tuesday_at_trizcon2008 .html

Professional Limits

Nikolai Khomenko, one of the originators and developers of OTSM-TRIZ, discusses why professionals in specific areas resist innovative solutions and how to overcome this situation.

 $\frac{http://otsm-triz-sustainable-innovation.blogspot.com/2008/05/professional-limits.html$



Creative Conflict

Mathijs van Zutphen, philosopher and TRIZ practitioner, presents how OTSM-TRIZ approach to resolving Creative Conflicts was used with students of Johan Cruyff University in Amsterdam to improve management of one of the leading Dutch soccer teams.

http://xignals.wordpress.com/2008/04/21/creative-conflict/

TRIZJournal TRIZ-enabled Mergers and Acquisitions

By Jim Belfiore

In this article, Jim Belfiore, director of innovation practices at Invention Machine Corp., discusses how TRIZ can be used by businesses to recognize new opportunities and reduce risks for mergers and acquisitions for technology companies by demonstrating a case of water filtration.

http://www.triz-journal.com/archives/2008/05/06/



Managing Emotions: Applying the Substance-field Theory

By Prakasan Kappoth and Harsha G. Goolya

Quite unusual application of TRIZ theory of Substance-Field Analysis and Modelling for managing human emotions.

http://www.triz-journal.com/archives/2008/06/05/



Case Study: Use of TRIZ in Software Design

By Navneet Bhushan

Software design and engineering has been an area for a long time trying to incorporate TRIZ. While probably TRIZ is not very effective for programmers (not much innovation is required to write software code), it can be used with a high degree of effectiveness to design and architect software systems. In his article, Navneet Bhushan (VP and head of Hexaware Innovation Labs) presents a case study of designing software with the use of the TRIZ concept of Ideality.

http://www.triz-journal.com/archives/2008/06/04/



An Overview of the General Theory of Innovation

By Greg Yezersky

Greg Yezersky, innovation professional and TRIZ expert with large practical experience, summarizes his may years of research towards building a General Theory of Innovation.

http://www.triz-journal.com/archives/2008/04/06/

MORE TO READ AND WATCH: INNOVATION AND CREATIVITY



Innovation: Making Inspiration Routine

By: A.G. Lafley and Ram Charan

In the article, A.G. Lafley (CEO and Chairman of Procter & Gamble) and R. Charan (business adviser) discuss their vision how to inspire small companies to become creative and innovative and scale P&G approach to innovation for businesses with limited resources.

http://www.inc.com/magazine/20080601/innovation-making-inspiration-routine.html

THE NEW YORKER

In the Air: Who says big ideas are rare?

by Malcolm Gladwell

The article shows how "big" ideas emerge independently, in different places but at the same time (which is not surprising if we know the TRIZ trends of technology evolution). Another goal of the article is to show that scarcity of ideas is a myth. I can agree with that statement, but what about really good and working ideas?

http://www.newyorker.com/reporting/2008/05/12/080512fa_fact_gladwell/?currentPage=all

BusinessWeek

Innovation: The New Landscape of Business

Video: Management expert and Professor of Corporate Strategy of University of Michigan C. K. Prahalad discusses the new landscape of innovation, in which companies must learn to co-create with their consumers, making use of a global ecosystem of resources. This requires paradigm shifts in a way businesses approach new product and services development.

http://www.businessweek.com/mediacenter/video/innovation/

You can also find a reference to a new book by C.K. Prahalad in the "Recommended New Books" section below.

BusinessWeek

Innovation Contests

Podcast: John Kao, founder of Kao & Company and author of the book *Innovation Nation*, talks about corporate innovation contests where companies look for the next billion-dollar business idea.

http://www.businessweek.com/mediacenter/podcasts/guide to tech/ceoguide 06 0 2 08.htm?campaign id=rss tech

BusinessWeek

The World's 50 Most Innovative Companies

This is a Business Week's 2008 version of the world's 50 top innovative companies. The list is not limited only to product innovation companies but also includes companies known for process, business models, and customer's experience innovation.

http://bwnt.businessweek.com/interactive reports/innovative companies/



Creating objects that tell stories

Video: Yves Behar (designer of Leaf lamp and OLPC) shares his vision at TED on a holistic approach to designing objects which "tell stories".

http://www.ted.com/talks/view/id/266

RECOMMENDED NEW BOOKS

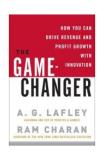


The New Age of Innovation: Driving Cocreated Value Through Global Networks

by C.K. Prahalad, M.S. Krishnan 304 pages, McGraw-Hill; 1 edition (April 8, 2008), ISBN: 0071598286

"The New Age of Innovation reveals that the key to creating value and the future growth of every business depends on accessing a global network of resources to co-create unique experiences with customers, one at a time. To achieve this, CEOs, executives, and managers at every level must transform their business processes, technical systems, and supply chain management, implementing key social and technological infrastructure requirements to create an ongoing innovation advantage." (Amazon.com)

http://www.amazon.com/New-Age-Innovation-Cocreated-Networks/dp/0071598286



The Game-Changer: How You Can Drive Revenue and Profit Growth with Innovation

by A.G. Lafley (Author), Ram Charan (Author) 352 pages, Crown Business, 2008, ISBN: 0307381730

"Over the past seven years, Procter & Gamble has tripled profits; significantly improved organic revenue growth, cash flow, and operating margins; and averaged earnings per share growth of 12 percent. How? A. G. Lafley and his leadership team have integrated innovation into everything P&G does and created new customers and new markets. Through eye-opening stories A. G. Lafley and Ram Charan show how P&G and companies such as Honeywell, Nokia, LEGO, GE, HP, and DuPont have become game-changers." (Amazon.com)

http://www.amazon.com/Game-Changer-Revenue-Profit-Growth-Innovation/dp/0307381730/

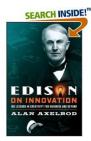


Innovation to the Core: A Blueprint for Transforming the Way Your Company Innovates

by Peter Skarzynski, Rowan Gibson 320 pages, Harvard Business School Press, 2008, ISBN: 1422102513

"The authors detail how to evaluate new growth opportunities, provide guidelines to manage innovation resources and suggest design rules to improve a corporation's innovation pipeline. Bolstering it all are examples and case studies of companies like Whirlpool and Procter & Gamble, which have learned how to make innovation part of their culture." (Industry Week)

http://www.amazon.com/Innovation-Core-Blueprint-Transforming-Innovates/dp/1422102513



Edison on Innovation: 102 Lessons in Creativity for Business and Beyond

by Alan Axelrod

192 pages, Jossey-Bass, 2008, ISBN: 0787994596

Although this book does not reveal new "secrets" of innovation, it emphasises the idea that almost everyone can invent successfully by following certain rules and principles – and there is no need to be genius.

http://www.amazon.com/Edison-Innovation-Lessons-Creativity-Business/dp/0787994596

PRINCIPLES FOR CREATIVE INNOVATION: "CONTINUITY"

THE PRINCIPLE OF CONTINUITY

Transforming a discontinuous action to continuous process can be a useful resource to create new service, business, and technological innovations. We often perceive something discontinuous as a given fact (and it is our psychological inertia), while we can benefit from making a service or a process continuous. One of the first innovations according to this principle was introduction of water supply via aqueducts in the ancient cities which eliminated the need to use human labour to deliver water. Think for example, about a mobile phone which is always with us, or stores which are open 24/7, or ability to call a hotline and get feedback any time of day or night, or non-stop conveyor belts at manufacturing facilities. Today transforming many formerly discontinuous actions to continuous services might even become a necessity to survive in the environment of global competition.

There are several simple rules of the principle of continuity:

- Transform a discontinuous process to a continuous one
- Make some action repeatable which usually happens only once
- Increase the number or frequency of repeatable actions

Often, transforming a discontinuous action to a continuous process requires the use of modern technologies: PCs, computer networks, electronics devices. This is a large area to explore new opportunities!

Examples:

- 24/7 service in hotels.
- Permanent monitoring of supply-demand within a supply chain.
- Permanent monitoring of elevators.
- TV series running for many seasons instead of a single movie.
- Access at any time to corporate networks via virtual private networks.
- Every day updates of websites.
- Several short vacations per year instead of a single long vacation.
- Lifetime learning philosophy.
- Prolonged coaching rather than one-time short training.
- Special TV channels for advertisement.
- Fitness and swimming areas in offices.
- Permanently staying online in the Internet via a mobile phone.
- Any time instant upload of new books and music from the Internet.

And some more examples:



Contnuous monitoring of tire pressure



Regular newsletters provide continuous flow of information



Continuous monitoring during physical exercises



Freeways eliminate needs to stop at crossroads



Credit card sized notepad is always available in a wallet



RSS news feeds provide continuous news flow

- 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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