TRIZ, CREATIVITY, INNOVATION

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Dear Friends,

Please find a new issue of our newsletter.

TRIZ is evolving. This fall, I am really 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 (a city where I live), The Netherlands. This year the conference will be also supported by CIRP: The International Academy of Production Engineering (http://www.cirp.net/). Further details on the conference and call for papers can be found at http://www.trizfuture.net/. The first call for papers has been posted, and keep in mind that a deadline for submitting abstracts is the April 1st (one author per paper get 50% discount of the conference fee). So if you are willing to submit a paper, please do not postpone writing your abstract for too long.

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. Feel free to write me at valeri@xtriz.com.

Also note that the dates of advanced and extended courses on TRIZ and Systematic Innovation from ICG T&C were changed to better match agendas of participants who registered already. Please find the updated dates below.

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

PUBLIC TRIZ TRAINING FROM ICG T&C, SPRING 2008

Do not miss! In Spring 2008, ICG T&C organizes the following public courses:

1.5-day TRIZ For Kids
http://www.xtriz.com/trizforkids/
A workshop for teachers and parents with Nikolai Khomenko, author of "Thoughtivity for Kids".

March 20-21, 2008
The Hague, The Netherlands

5-day Extended TRIZ and Systematic Innovation for Business and Management (for starters)
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.

April 14-18 2008
Utrecht, The Netherlands

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

May 26-30, 2008
Arnhem/Eindhoven, The Netherlands

More details about each course and registration can be found at http://www.xtriz.com/Training/. For other details, please do not hesitate to contact us at training@xtriz.com.

TRIZ CONFERENCES AND EVENTS

- **TRIZCON 2008:**
  April 13-15, 2008, Kent State University, USA
  http://www.aitriz.org/ai/index.php?page=2008/trizcon2008&article=information

- **The Fourth TRIZ Symposium in Japan**:
  September 10-12, 2008, Laforet Biwako, Moriyama City, Shiga Prefecture, Japan.
  http://www.osaka-gu.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/

FROM THE AUTHOR

Thinking Skills for Innovative Leadership
by Valeri Souchkov
http://www.xtriz.com/publications/ThinkigSkillsForInnovativeLeadership.pdf

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

MORE TO READ AND WATCH: TRIZ

Report on TRIZ Future 2007
Toru Nakagawa
http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/eforum/e2007Forum/eETRIATFC2007Rep/eETRIATFC2007TNRep.html

For those who are interested in TRIZ developments, Toru Nakagawa, Professor of Osaka Gakun University in Japan, prepared a detailed overview of papers and presentations from the latest TRIZ conference "TRIZ Future 2007" which took place in Frankfurt last year. The overview is richly illustrated by images from paper presentations.

Invention Machine and the Case of the Boxed-Up Box Spring
Wade Roush
http://www.xconomy.com/2008/03/05/invention-machine-and-the-case-of-the-boxed-up-box-spring/

I remember very well how back in 1987, while being a student just about to graduate, I met Val Tsourikov who quickly intrigued me with an idea of software which could support inventors, and after a short talk he invited me to join his team. Two years later Invention Machine Labs were born, where we were driven by a common goal: to develop "software that invents". This article is about application of Goldfire Innovator™ (software that invents) at

Leggett & Platt to develop a foldable spring box, and about current Invention Machine. Although Goldfire Innovator™ incorporates some TRIZ techniques and is very powerful software, I still believe that developing the TRIZ way of thinking is no less important than software. Their combination brings tremendous innovative advantage.

Why TRIZ is a Whizz

Eureka Magazine, 28/01/2008
http://www.eurekamagazine.co.uk/article/12900/Why-Triz-is-a-whizz.aspx

An article in Eureka magazine which highlights that TRIZ is more than just the Altshuller Matrix and 40 inventive principles. Although the author mentions 2 more tools (trends of technology evolution and 9-box diagram), there are more tools in modern TRIZ.

Dow: Designing the Next-generation Railcar With TRIZ

By Sue Reynard, at *RealInnovation.com*
http://www.realinnovation.com/content/c080218a.asp

An article provides a case study at Dow of using TRIZ and DFSS.

Case Study: Pizza and the System Operator for Teaching

By Ellen Domb, Joe A. Miller and Ralph G. Czerepinski
http://www.triz-journal.com/archives/2008/03/04/

A short but useful article for those who are interesting in studying a TRIZ technique of System operator (multi-screen diagram of thinking). Also note, that here in the Netherlands, in cooperation with Saxion University, we conduct workshops on using System Operator for personal development. If you are interested in participation, please contact us at info@xtriz.com. The workshops are free of charge.
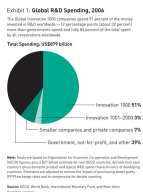
TRIZ in the World of Science - Where Does It Fit?

By Nikolay Shpakovsky, *The TRIZ Journal*, March, 2008
http://www.triz-journal.com/archives/2008/03/05/

The article proposes a structure of TRIZ and tries to see TRIZ from the point of view of science. Such attempts have been already done, and it is interesting to see a new point of view.

MORE TO READ AND WATCH: INNOVATION AND CREATIVITY

The Customer Connection: The Global Innovation 1000

by Barry Jaruzelski and Kevin Dehoff, *Strategy+Business*, December 2007
http://www.strategy-business.com/resiliencereport/resilience/rr00053?pg=0

The authors present a comprehensive article based on analysis of an annual report on Innovation produced by Booz Allen and Hamilton.

50 World Most Innovative Companies

Fast Company, March 2008
http://www.fastcompany.com/magazine/123/the-worlds-most-innovative-companies.html

Again, this year by *Fast Company* - a list of top 50 most innovative companies. Among the leaders are Google, Apple and Facebook.

The Next Disruptors

Business 2.0
http://money.cnn.com/galleries/2007/biz2/0708/gallery.next_disruptors.biz2/?section=magazines_business2

Business 2.0 magazine gives an overview of 15 companies developing new technologies which will change the world.

Innovation at Google

http://www.youtube.com/watch?v=2GtgSkmDnbQ

Curious how they innovate at Google? Watch a 51-minute video presentation by Google CIO Douglas Merrill on innovation practices at Google.

How Can IT Enable Innovation Across the Corporate Enterprise?

http://www.ebizq.net/filelib/8600.html?&pp=1

An interview with Richard Platt, the former corporate innovation manager and senior instructor for innovation methods at Intel Corp. about a role of IT as enabler of innovation across the enterprise. In his talk, he also refers to my paper "Skills and Tools to Support Productivity in Creative Work", which is available at
http://www.xtriz.com/publications/SummitForFuture2005Souchkov.pdf

Financial Innovation: Engine of Growth or Source of Instability?

By William Poole
President, Federal Reserve Bank of St. Louis
http://stlouisfed.org/news/speeches/2008/03_06_08.html

Innovation is not only happens in technology or business. Financial world as well experiences continuous innovations, which produce major impact on societies and economies. The article discusses several types and history of financial innovations.

Trends Map 2008

http://www.rossdawsonblog.com/weblog/archives/2008/01/see_our_latest.html

An interesting visualization of key trends among a number of areas: politics, technology, demography, society, economy represented at Shanghai's underground routes.

PlayPump: Using Resources

http://xtriz.blogspot.com/2008/02/great-example-of-using-resources.html

A nice illustration of the TRIZ way of thinking! Although I am not sure TRIZ was known to authors of the idea of "PlayPump", but the idea is a very good illustration of several basic TRIZ concepts. First, ideality: how to achieve the desired results with as little as possible expenses? Second, use of resources. There is always a plenty resources around. A smart use of resources helps to find new, non-ordinary solutions which can considerably simplify a task and solve it in a very cost-effective way. Third - good solutions should always provide **"win-win"**. Everyone wins, no one suffers.
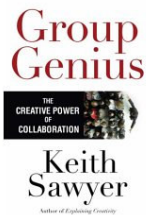
Zink: Inkless Printing

http://money.cnn.com/video/#/video/business2/2007/08/22/b2.disruptors.zink.cnnmoney

See the video with Steve Herchen, a CTO of Zink (spin-off of Polaroid), a company which developed a new printing technology: without ink. It is an interesting example of transferring a function to a supersystem and trimming: no ink is needed in a printing device since ink is already incorporated to paper. Now even a mobile phone can directly print photos.
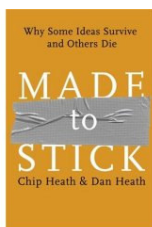
RECOMMENDED NEW BOOKS

Group Genius: The Creative Power of Collaboration

by Keith Sawyer
274p, Basic Books, 2008, ISBN: 978-0465071937
http://www.amazon.com/Group-Genius-Creative-Power-Collaboration/dp/0465071937/ref=pd_bbs_sr_1?ie=UTF8&s=books&qid=1205675553&sr=8-1

"*In this authoritative and fascinating new book, Keith Sawyer, a psychologist at Washington University, tears down some of the most popular myths about creativity and erects new principles in their place. He reveals that creativity is always collaborative--even when you're alone. (That "eureka" moment in the bathtub couldn't have come to Archimedes if he hadn't spent so many hours arguing and comparing notes with his fellow mathematicians and philosophers.)* ". (800-CEO-read).
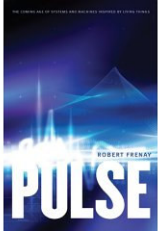
Made to Stick: Why Some Ideas Survive and Others Die

by Chip Heath and Dan Heath
304p, Random House; 2007, ISBN: 978-1400064281
http://www.amazon.com/Made-Stick-Ideas-Survive-Others/dp/1400064287/ref=pd_sim_b_img_2

"*Unabashedly inspired by Malcolm Gladwell's bestselling The Tipping Point, the brothers Heath—Chip a professor at Stanford's business school, Dan a teacher and textbook publisher—offer an entertaining, practical guide to effective communication. Drawing extensively on psychosocial studies on memory, emotion and motivation, their study is couched in terms of "stickiness"—that is, the art of making ideas unforgettable… What makes such stories memorable and ensures their spread around the globe? The authors credit six key principles: simplicity, unexpectedness, concreteness, credibility, emotions and stories.*" (Amazon.com.)

Pulse: The Coming Age of Systems and Machines Inspired by Living Things

by Robert Frenay
576p, Bison Books, 2007, ISBN-13: 978-0803217775
http://www.amazon.com/Pulse-Coming-Systems-Machines-Inspired/dp/0803217773/ref=pd_bbs_sr_1?ie=UTF8&s=books&qid=1205676133&sr=1-1

"In journalistic fashion, Frenay refracts what environmentally aware scientists, farmers, and economists are saying about technologies, markets, and the biosphere. Distilling their viewpoints, Frenay expounds on developments that take into account the environmental costs of industrialism and overpopulation. The array of material--artificial intelligence, organic farming, and more--tends to fragment the narrative. But the constant changes in topic will give readers interested in practical over ideological environmentalism a survey of what's happening greenwise across the board. Frenay sustains a metaphor that devices, companies, and economies will perform better if they behave like organisms and ecosystems in the biosphere, that is, as decentralized, open systems balancing flows of energy and matter." (Amazon.com)

(thanks Karel Bolckmans for a tip!)

PRINCIPLES FOR CREATIVE INNOVATION: "INTEGRATION"

It has become a tradition in this newsletter to publish some of the principles (which we call "principles for creative innovation") which help to expand our creative imagination and boost our creative skills. Although "fully powered" TRIZ requires a more sophisticated approach and provides a number of analytical techniques which guide us towards most powerful and ideal solutions, these principles can be used independently to help us during creative sessions with triggering our imagination to produce new out-of-the-box ideas.

Let us have a look today at the principle of "Integration".

The principle says, that we can obtain new ideas by integrating existing "things". What are these "things"? A thing can be anything: it can be a physical object, or it can be a business service, or it can be a combination of a product and a service, or combination of different processes.

What can we integrate? There is a number of possibilities:

- Two or more different objects (e.g. alarm clock and CD player, or adding metal parts to painting)
- Two or more objects that deliver similar functionality (Swiss knife brings together a knife, a cork opener and scissors)
- Two or more objects that deliver opposite functionality (e.g. pencil and rubber)
- A new service and an object (e.g. teaching how to make art objects with wire)
- Two or more services ("financial packages" by banks: loans, insurances, etc. in a single package, "all included" travel arrangements)
- Two or more processes (producing and selling art objects directly via web without dealership)

Some more examples:

Internet Cafe

Media PC

Business incubator

Several images integrated to one

USB stick with flashlight

Pencil with rubber

Massaging shower head

Key ring with an opener

Soap with aloe

But there are always several important criteria to keep in mind when trying to integrate something:

- Will there be new functional or emotional value created? A new value can be created by:
    o introducing a new functionality as a result of integration (scissors: integration of two knives),
    o integrating two or more functions in a convenient way (a food processor)
    o eliminating some need which requires wasting resources by a customer (for instance, pizza delivery eliminates a need by a customer to go to a pizzeria),
    o cutting costs (locating an office of a start-up company in a "business incubator" will help to economically run business due to using shared services),
    o boosting some important parameter which increases perceived value (gift sets).
- What problem such a new combination resolves? In case if some existing contradiction is resolved, it is even better.
- Will a new combination increase the degree of ideality?

Have fun!

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