File: WTSP-ListSites-D-jp-Japan.docx Last update: Apr. 24, 2018

WTSP A Catalog of TRIZ Sites in the World

Current Working Manuscripts of Revisions
Country D-jp-Japan

# Instructions

This is the **Working Manuscript** of WTSP Catalog of TRIZ-related Sites in the World in .docx format.
Please note that only the parts (or sites) revised (or to be revised) from the Base Documents  (posted in Feb. 11, 2018) are shown here.

Please review and revise the documents in the following process, while you are a Member of WTSP or NOT:

(1) **Download** this document and the Base Document from “TRIZ Home Page in Japan” (URL: http://www.osaka-gu.ac.jp/phap/nakagawa/TRIZ/eTRIZ/eWTSP/eWTSP-Outputs.html ).

(2) **Revise** (or write comments on) any sites or group of sites using MS Word. Please review and update the document thoroughly.
Update the sites already written; check the links, introduce new contents and revise the description of introduction.
Add new important sites, which are posted not only in English but also in other languages.
Please follow the detail instructions shown below for writing the revisions.

(3) **Simplify** the edited file by deleting untouched/irrelevant countries/sites etc. and leaving only the revised parts.

(4) **Send your revision file** via email to some WTSP active member close to you (or Project Leader).  He/she will edit such revision manuscripts from you and some others either at the Country or Region levels.
\*\* If you want to join WTSP, please fill in Membership Application Form and send it to WTSP Project Leader via email (See the instructions in “TRIZ Home Page in Japan”,)

(5) Then such WTSP active members will work cooperatively to incorporate all the revision proposals into a revised set of Lists of Sites for Countries, for Regions, and finally for the World.

(6) When appropriate the revised version will be posted publicly in “TRIZ Home Page in Japan” (and in the Bitrix24 WTSP platform).

## Detail Instruction of how to write the update information:

**Please use the text styles in the following manner:**

|  |  |  |
| --- | --- | --- |
| **Item** | **Style name** | **Style** |
| **Region name, Country name** | **Header 1**  | **Arial, 12 pints, in red fonts, bold** |
| **Site name**  | **Header 2** | **Arial, 10.5 points, in dark blue fonts, bold** |
| Original (old) text | Text original (old) (green) | Times New Roman, 10.5 points, in green fonts; indented by 4 characters |
| New or updated text | Text new update (light blue) | Times New Roman, 10.5 points, in blue fonts; indented by 4 characters |
| Comments & suggestions: | Comments Suggestions | Times New Roman, 10.5 points, in red fonts; indented by 8 characters |
| Revised (finalized) text: | Text revised (final) (dark blue) | Times New Roman, 10.5 points, in dark blue fonts; indented by 4 characters |

**Site number is set arbitrary here in each Country. Please do not change it for the time being.**

**At the end of your description (of individual sites),** please record your name, date,
 and Note of description (i.e., Intention of writing/update and degree of necessity of further revision, etc.)

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# (D) Region D Asia

# D-jp- Japan    [See more details (total 92 sites) in English in . ]

## 01  (a) (d)  TRIZ Home Page in Japan　<http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/>　(in Japanese）http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif<http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/>  (in English） http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

Editor: Toru Nakagawa (Professor (1998-2012)/Professor Emeritus (2012- ) of Osaka Gakuin University).  He established this site in Nov. 1998 (Nov. 1 in Japanese and Nov. 15 in English), and has been posting new TRIZ-related information actively with unfixed interval of 2 to 4 weeks constantly till present.

The site posts introductory articles, overviews, papers, conference reports, etc. on TRIZ with a wider scope.  Pages in Japanese and pages in English are posted more or less in parallel.  The articles/papers are written not only by the Editor (in Japanese and in English), but also by many Japanese authors (in Japanese and some in English translation) and by many overseas authors (in Japanese translation and some in English).  It has four 'Entrance Pages' adapted for four types of readers (i.e., for Children and high school students, for Students and the general public, for Engineers and researchers novice to TRIZ, and for Practitioners and experts of TRIZ); they show categorized lists of (pretty many) recommended pages with annotation.

The Editor's research themes have evolved from (a) introduction and proliferation of (classical and modernized) TRIZ, to (b) introduction and extension of USIT (Unified Structured Inventive Thinking), (c) proposal of Generalized Methodology for Creative Problem Solving (CrePS), and (d) Research on the Principal Contradiction ('Liberty vs. Love') of Human Culture.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable. ]

## 02  (a) (c) (Former） Japan TRIZ CB (Collaborative Board of TRIZ Promoters and Users in Japan)   <http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/jlinksref/JapanTRIZ-CB/JapanTRIZ-CB.html>  (in Japanese) ; <http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/elinksref/eJapanTRIZ-CB/eJapanTRIZ-CB.html> (in English)

The first nation-wide organization for promoting TRIZ in Japan, established in 2005, by the collaboration of TRIZ users and promoters. Japan TRIZ CB organized TRIZ Symposium in Japan (First in 2005 till Third in 2007). The Web site posted the records and presentations in these Symposia. At the end of 2007, the organization turned officially into Japan TRIZ Society (NPO) (see elsewhere). The Web pages are still active inside "TRIZ Home Page in Japan".

[Written by Nakagawa T. on 2018/4/3.]

## 03 (a) (c)  Japan TRIZ Society (NPO) 　<http://www.triz-japan.org/> (in Japanese) http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif; 　<http://www.triz-japan.org/english_top.html> (in English)

Japan TRIZ Society is the nation-wide Center for promoting and proliferating TRIZ in Japan, established officially in December 2007 on the basis of Japan TRIZ CB.

It has organized TRIZ Symposium in Japan every year (from the Fourth in 2008 to the Thirteenth in 2017).  The Symposium till 2012 was held for 3 days with actively calling for participation/presentation by overseas people, but later since 2013 it was held for 2 days and with mostly-domestic participation/presentation except invited Keynote speakers from abroad.  Every year many user industries gave their presentations on TRIZ usage and promotion.  (Almost) all the presentations were shown with slides in Japanese and in English in parallel.   Keynote Lectures and Award-winning presentations (about 5 papers every year, voted by the participants) are publicly posted in the Web site about 3 months later, and all other presentations are posted in the 'Members only' pages of the site.

The short TRIZ introduction article in this HP is rather poor unfortunately, I think.  In Japan TRIZ Society, four study groups are running for several years.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable. ]

## 04 (a) (c) Nikkei BP (Nikkei Business Publications, Inc.)  <http://tech.nikkeibp.co.jp/>  (in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif ;　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif　  <http://tech.nikkeibp.co.jp/en/> (in English) (only partial)

Nikkei BP initiated the introduction of TRIZ into Japan since 1996, and served as one of the main promoters of TRIZ in Japan by publishing many articles in its monthly journal "Nikkei Mechanical" and a series of 6 textbooks of "Super-Inventive technique: TRIZ" until around 2002.  Later, till present, it has not been so active, and posted small articles from time to time.  The site search with the keyword TRIZ hits 160 pages.

The following domains are its successors at moment:
  Nikkei BP Technical Information site (Cross-tech) XTech http://tech.nikkeibp.co.jp/
  "Nikkei Monozukuri" journal
  Nikkei BP Consulting Inc.
  Nikkei ITpro http://itpro.nikkeibp.co.jp/

[Written by Nakagawa T. on 2018/4/3.]

## 05 (a) (b) (Mitsubishi Research Institute) MRI Research Associates   （ http://www.goldfire.jp/IM/　abandoned　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkDead.gif　） (in Japanese)

From 1997 to 2007, Mitsubishi Research Institute (its Department of Knowledge Creation Research) and MRI Research Associates were the General Agency in Japan of Invention Machine Inc. (USA) and carried out the introduction and promotion of TRIZ actively.  Especially, MRI promoted the TRIZ software tools, TechOptimizer and Goldfire Innovator, by organizing a consortium of big user companies for developing Japanese editions of the tools.  It also organized Users Group of many industries and held monthly seminars/workshops for cooperative study of TRIZ and annual conferences named as the IM Users Group Meeting.

Its Web site posted documents and references of such software tools and their seminars and meetings regularly.  At present, however, the site of this URL does not exist.

[Written by Nakagawa T. on 2018/4/3.]

## 06 (a) (b)  Sozo Kaihatsu Initiatives 　（  http://www.triz-jp.com/　abandoned http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkDead.gif）　(in Japanese)

In 2003, the group promoting TRIZ in Mitsubishi Research Institute span out to start SKI (Key persons: Masatoshi Hotta, Yoshihisa Konishi).  SKI was a dealer of the Invention Machine (USA).  Also in connection with Darrell Mann (UK) and CREAX (Belgium), SKI published the textbooks "Hands-On Systematic Innovation" and "Updated Contradiction Matrix 2003" in Japanese translation. SKI conducted training and consulting in industrial companies and organized open seminars in TRIZ.  SKI closed the business in 2012.

[Written by Nakagawa T. on 2018/4/3.]

## 07 (a) (b) Cybernet Systems Co., Ltd.　　<http://www.cybernet.jp/>  http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif (in Japanese) ;<http://www.cybernet.co.jp/english/> (in English) (only partial)

General Agency in Japan of Invention Machine Corp. (USA) since 2007.  The company is promoting the sales of the software tool, Goldfire Innovator (the successor of TechOptimizer), and conducting seminars on it.  Goldfire Innovator is capable to access to a huge body of information sources (not limited to patent DBs) in science and technology with its powerful semantic analysis tools, and hence to conduct surveys and knowledge sharing/management in a much wider scope than ordinary TRIZ techniques for problem solving.  In 2012 Invention Machine was merged into IHS (USA) with the hope to utilize even wider information sources in the world.

The Web site of Cybernet Systems posts introductions to the functions and usage of Goldfire, monthly articles on 'What can you do with Goldfire?', and user supporting information, etc.  Inviting many user industries, Cybernet Systems held Invention Machine User Conference annually in 2009 to 2011 and Goldfire Innovation Forums annually in 2013 to 2017.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable.]

## 08 (a) (b)  ITEQ International, LLC.　　<http://www.iteq.co.jp/>　(in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

A consulting firm for technologies and quality, having 25 years of experiences, it says.  Pursuing the themes such as implementing the process innovation of development, improving new product development, quality improvement in mass manufacturing, enhancing manufacturing capability, and cost management, the firm posts how to achieve them (especially by consultation) in detail in the Web site.  The firm uses the methodologies such as six sigma, Taguchi method, MT (Hahalanobis-Taguchi) system, QFD (Quality functional deployment), FMEA/FTA, TRIZ, strategy management, etc., and describes the methods in some detail.  As for TRIZ, they recommend to use TRIZ in integration with QFD and Taguchi Method, rather than using it alone.

[Written by Nakagawa T. on 2018/4/3.]

## 09 (a) (b) IDEA Corp.       <http://www.idea-triz.com/> (in Japanese)  http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif  http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

IDEA is a consulting firm specialized in TRIZ, starting in 2003 by spinning off from ITEQ, and has been actively conducting trainings and consulting in industries and open seminars.  IDEA has particular strength in applying QFD-TRIZ-TM in an integrated manner to new product development, and in consulting with big and SME companies in such a strategy.

The Web site explains to use the following four IDEA-style scientific development methods in an integrated way: Seeds-driven Quality Deployment (SDCD, for developing new business fields), IDEA-QFD (for developing new products in existing business fields), IDEA-TRIZ (for innovative problem solving with break-through solutions), and IDEA-TM (for implementing new solutions optimally).  Various documents of these TRIZ-related methods are downloadable free of charge (with registration).  IDEA also sells TechOptimizer and Goldfire Innovator of Invention Machine (later under IHS) as a dealer and promotes the use of software tools together with their methods.

At Japan TRIZ Symposia, several industrial customer companies reported their successful results of promoting/applying IDEA ways in their new product development, confirming the effectiveness of IDEAs methods and consulting.

The following two blog sites were operated several years ago, but have not been updated recently:
  Blog by Mamoru Zenko, President: ' I'm fine, today, too' (Diary by IDEA President): http://blog.livedoor.jp/n2ublog-00018/
  Blog by Masahiro Kuwahara, Senior consultant: Daily inventive monolog by a TRIZ consultant: http://kuwatriz.exblog.jp/

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable. ]

## 10 (a) (b)  MOST LLC　　　[www7b.biglobe.ne.jp/~most/](http://www7b.biglobe.ne.jp/~most/) (in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif　　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

Since 2001 Kazuya Yamaguchi led the innovation of development process and quality management in Kyushu Matsushita Electric Co. (renamed into Panasonic Communications Co. (PCC) in 2003) by using scientific methods including quality engineering, TRIZ, and QFD.  He retired from PCC in 2007 and started a consulting firm, MOST LLC, together with his several colleagues who worked together for the PCC process innovation.

MOST's philosophy is To propose and provide methods for drastic innovation applicable in the era of AI (Artificial Intelligence, e.g., IoT and Factory big data).  More specifically it proposes "to use scientific technology tools in the world (e.g., QFD, TRIZ, Quality engineering (or TM), MATLAB, and some other universal-use tools) effectively, to improve the current styles of research, development, design, and manufacturing into new business promotion styles with high efficiency, and to put your business on a sustainable and growing curve by obtaining maximal results in achievements."

Their methods are written closely by the MOST members in their books (or white papers), which are available in their HP with free downloading (without registration).  They include:
(1) "Improve your quality, then your costs get reduced (recommendations to Taguchi Method)" by Kazuya Yamaguchi (95 pages).
(2) "How to eliminate the needs of remaking software in the market due to bugs (recommendations to Taguchi Method)" by Kazuya Yamaguchi (27 pages).
(3) "We can design without remaking! (Parameter design in Taguchi Method)" by Ikuro Hamada (59 pages).
(4) "Method to realize No. 1/only-one products easily (TRIZ)" by Kiyoaki Matsui (28 pages).
(5) "Method to develop epoch-making products easily (QFD-TRIZ-TM and Technology and IP strategies)" by Kazuya Yamaguchi (42 pages).
(6) "Method to achieve visual inspection drastically efficiently (MATLAB and TM)" by Ken-ichi Kawano (30 pages).
(7) "Method to achieve acoustic inspection drastically efficiently (MATLAB and TM)" by Ken-ichi Kawano (30 pages).
(8) "Business strategy for executives to raise their performance surely (Raising performance/results come from raising members)" by Kazuya Yamaguchi (31 pages).
All these textbooks are impressive with their strong encouraging messages.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable. ]

## 11 (a) (b) SANNO Institute of Management  <http://www.hj.sanno.ac.jp/cp/page/8196> (in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

Since 1997 SANNO has conducted research on TRIZ, TRIZ consulting to industries, and TRIZ seminars, etc.  It has promoted, in connection with Ideation International Inc. (USA), the application of Contemporary TRIZ, TRIZ/IPS, etc.  Until about 2010, SANNO had nearly 10 TRIZ consultants in their 'TRIZ Center', forming the largest TRIZ group in Japan at that time.

Their HP posts introductory articles on TRIZ (7 articles of about 5 pages each) and various suggestions and documents for introducing TRIZ.  SANNO published their research and survey reports in "TRIZ Letter" (Issue 1 in 1998 to Issue 38 in 2012) for regularly sending to their customers, and posted the abstracts of such articles in their HP.
In 2010 Ideation Japan Co. was established and later SANNO left the position of the agency of Ideation International Inc

[Written by Nakagawa T. on 2018/4/3]

## 12 (a) (b)  Ideation Japan, Inc.  <https://ideation.jp/>  (in Japanese)  http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif   http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

Ideation Japan was raised by Teruyuki Kamimura, a patent attorney, in 2010 and currently is the only agency of International Ideation Inc. (USA) in Japan.

In Ideation International, TRIZ Masters (and collaborators of G. Altshuller since 1970s) Boris Zlotin, Alla Zusman, et al. developed TRIZ further in depth to form a new and big system named Ideation-TRIZ (or I-TRIZ).  The system is composed of 3 main components, i.e., Inventive Problem Solving (IPS), Anticipatory Failure Determination (AFD), and Directed Evolution (DE).  Such methods are supported by software tools which install well-systematized solution prototypes (called System Operators).

The HP of Ideation Japan posts many introductory articles on these methods in a way easy to understand.  Multiple issues of pamphlets are downloadable (free of charge, with registration), and videos of an introductory seminar (14 parts, over 3 hours in total) can be seen free of charge (without registration).  Ideation Japan conducts seminars on I-TRIZ and its software tools pretty frequently (with or without charge) as a part of its active proliferation activities.

In 2013 it established 'I-TRIZ Promotion Association' for the purpose of promoting their private I-TRIZ certification.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable.]

## 13 (a) (b)(c)  I-TRIZ Promotion Association    <https://i-triz.org/>  (in Japanese) http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

This association was established in 2013 by Ideation Japan Co.  It aims at proliferating I-TRIZ in Japan for the purpose of activating the innovation generation, and operates the qualifying system of private I-TRIZ certification.

The HP intends mainly to describe the I-TRIZ certification.  Nevertheless, it posts documents of articles explaining various (about 50) problem solving methods in close comparison with I-TRIZ.  The HP also posts a blog series entitled as "How to use words and images for generating ideas: Using ever-evolving TRIZ smoothly" (once every month since 2010).

[Written by Nakagawa T. on 2018/4/3]

## 14 (a) (g)  TRIZ Study (Shinsuke Kurosawa) 　<http://www.trizstudy.com/> (in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif　 <http://www.trizstudy.com/contentslist.html> (in English, List of Contents in their original languages)

This site intends to be a Web site for the people who want to study TRIZ deeply in the Japanese language.  The site owner is Shinsuke Kurosawa, formerly at SANNO Institute of Management.  He is very fluent in Russian and has been working to study and proliferate TRIZ since mid-1990s.

This site is of special importance in Japan in the points that many original TRIZ papers written by G. Altshuller are posted in Japanese directly translated from Russian.  He also posts Japanese translation of various documents authorized by MATRIZ (i.e., International TRIZ Association), e.g., TRIZ Textbook for MATRIZ Level 1 certification, TRIZ Body of Knowledge (BOK), etc.  Besides them he introduces a number of papers on modern TRIZ in Russia, especially those related to education with TRIZ.

A wonderful article in this site for introduction to TRIZ is the instructions and worksheets of "16 steps in TRIZ for you to use today (for solving your problems)", which he has originally written down concisely.  As the process for solving problems, he shows the sequential points of focus in 6 main steps (i.e., problem/task/ideality, situations/viewpoints, inventive principles, resources, strategies/contradictions, and action plan) having 16 sub-steps in total.  For each sub-step, he shows in a worksheet the questions to think, and in the text in parallel he describes the instructions, simple examples, and a consistent set of case study.  The process is so simple and yet powerful that engineers novice to TRIZ may be able to work with it for him/herself even today.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable.]

## 15 (a) (b)  Creativity Engineering Institute　（Yuji Mihara）　<http://www.triz-usit.com/>　(in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

Yuji Mihara worked to introduce and promote TRIZ and USIT in Fuji Photo Film Corp. for several years and in 2007 on his retirement started his own consulting firm.  The HP posts simple introductions to TRIZ and some more articles on USIT (Unified Structured Inventive Thinking).  He explains the usage of USIT, along the process by its original developer Ed Sickafus and utilizing the USIT Operator System which was developed in Japan by Nakagawa T., Kosha H. and Mihara Y. (2002).

[Written by Nakagawa T. on 2018/4/3]

## 16 (a) (b)  Pro-Engineers (Shigeru Kasuya）  <http://www.proengineer-institute.com/>　(in Japanese) http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gifhttp://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

Shigeru Kasuya worked for SONY and later for Fuji Xerox, and started his consulting firm 'Pro-Engineer' in 2006.  His site states its purpose as "TRIZ & Support for Differentiating Technology Development".  He intends to support not only the usage of TRIZ but also more widely the development of new technologies/products, innovation in business processes, human resource development of researchers and engineers, etc.

The top page of his Web site is a tightly packed index to a lot of information in the site.  There are interesting articles such as abstract documents of his various seminars, articles in newspapers and journals mentioning about his work, his answers to questions/issues raised by various industry users (over 40 articles, which are posted also in the Q&A corner of Monodukuri.com,).  He also shows his own examples for 40 Inventive principles; they include illustrated examples for all the 104 sub-principles, examples from the areas of IT/SW, chemistry, and biology.

Contradiction Matrix (in the classical form) is also installed in the HP so that the inputs of an improving parameter and a worsening parameter return the outputs of four inventive principles.  He writes an interesting suggestion that a simple Google search with a keyword of target object and a second keyword of function/property can give the information very similar to the results from TRIZ Effects database.  At the end of the site, several case studies of solving problems with TRIZ are demonstrated.  This is an interesting site giving us a lot of new suggestions.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable.]

## 17 (a) (b)  IdeaPlant (Rikie Ishii）　<https://ideaplant.jp/>　(in Japanese)　　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif, Rikie Ishii's Activity Report　　<http://ishiirikie.jpn.org/>　(in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif, <https://ideaplant.jp/triz/index.html> (in English) (only partly)

IdeaPlant was a name of a group organized by Rikie Ishii in 2005 in Sendai, with the intention of 'a place for growing seeds of ideas into large trees'. (The group seems to have worked in the name of 'Miyagi TRIZ Study Group' for a certain time.)  Ishii made the IdeaPlant as a business in 2009.

He has been working energetically for raising creative persons and creative organizations, mostly by devising/practicing/proliferating the methods/processes/tools for enhancing the idea generation.  He has produced 'TRIZ Brainstorming Cards' (i.e., playing cards with simplified phrases and illustrations of TRIZ 40 Principles), 'BreStir' (i.e., a playing process for enjoying and activating the Brain Storming using some specialized cards), among others.

He conducts many 'Workshops for enhancing idea generation' at various industries, universities, high schools, local communities, etc., getting high reputation on his vivid way of workshops. His activities at various places in Japan (and some in neighboring countries) are reported frequently in his blog "Activity Reports by Rikie Ishii".  He also actively uses various IT media such as Facebook, Twitter, YouTube, SlideShare, etc.  We can learn his way of workshops and idea generation through his presentation slides, "Techniques for creative idea generation" at his 5-hour mini-lecture and workshop held in Kyoto in February 2018.  https://www.slideshare.net/ishiirikie/5-88358296 .  His presentation is always attractive with his illustrations and good design sense.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable. ]

## 18 (a) (e)  Monodukuri.com   <https://www.monodukuri.com/>  (in Japanese) http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif   http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

This is a nice portal site which has produced and implemented a mechanism for connecting (a) Issues in monodukuri (or manufacturing in general) (and the industries having them) with (b) Methods useful for solving the issues (and the professionals in such methods).  The basis of this mechanism is the 'Monodukuri Engineering Matrix' which Osamu Kumasaka built during his R&D work for Pioneer Corp.  The Matrix has rows of 60 Issues for monodukuri (i.e., Planning 7, Development & design 15, Manufacturing 22, and Quality in market 6) and columns of 118 Methods for solutions (including Strategy techniques 9, TRIZ 8, USIT 1, Quality engineering 8, etc.).  In the Matrix cells, applicability and usefulness of the method for the issue is shown with the 4-grade evaluation (i.e., 3, 2, 1, and 0).

Kumasaka started this Monodukuri.com site in 2012 after his retirement.   First he obtained supports and registrations by many professionals (currently 138), and obtained their contributions of introductory articles on individual methods and their usage (currently 1600 articles, 2-3 pages each), training texts (currently 490 documents), and application case studies (currently 950 cases), for publicly posting in the site.  Users (in industries) may choose an issue most relevant to his/her problem from the list of 60 Issues, then is led by the Matrix to possibly applicable/useful methods, and can further study the methods closely by reading their introductions and case studies.  If a user asks a question (or raise his/her own issue) openly at the site, any professionals may reply to it openly at the site as well.

All these basic use of the site is free of charge for the users (some of them need registration without charge), while there are additional services of seminars and individual consultation with charge.  The site is now operated with annual support money and payback for consulting arrangement from the registered professionals.  Professionals seem to find merits in the site for paying such money.  Recently, the site started a service by professionals to support SMEs for their applications to governmental grants.

Because of the accumulation of useful information and appropriate operation mechanism, this portal site is now growing steadily year after year.  This is certainly a significant business model started by Osamu Kumasaka.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable. ]

## 19 (a) (c)  J-STAGE (operated by Japan Science and Technology Agency (JST)) 　<https://www.jstage.jst.go.jp/browse/-char/ja>　(in Japanese)　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

J-STAGE is an electronic journal platform for science and technology information in Japan, developed and managed by the Japan Science and Technology Agency (JST), under MEXT.

It posts academic publications in Japan exhaustively, including over 2000 journals, conference proceedings, and reviews published by various academic societies and research organizations in Japan.  Up-to-date issues and back numbers (back to the old initial issues for important journals) of journals are available.  Users may be registered without charge, and can read and download abstract and the first page for any paper freely.  Full text of individual papers may be, depending on the journal, either readable and downloadable freely, or accessible under individual authentication by the publishing society, or accessible after individual payment.

The Yahoo search inside the J-STAGE site with the keyword TRIZ gives 291 hits.  It may be possible that some more TRIZ-related papers published in old days are newly restored here in coming years.  We should watch this site as an important and reliable academic information source.

[Written by Nakagawa T. on 2018/4/3]

## 20 (a) (c)  SlideShare    <https://www.slideshare.net/> (in Japanese/English/any other languages)    http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

SlideShare is a world-wide Web service which allows to contribute any presentation slide file (in the formats of PowerPoint, Word, PDF, etc.) for posting without charge publicly to all the people in the world.  SlideShare is operated by LinkedIn, an SNS mostly for business/professional persons.  Main themes of SlideShare are business, creativity, and technologies, but not limited to them.  It has posted over 16,000 presentations in total already, it says.

On the topics of TRIZ, in Japanese, Rikie Ishii and Ideation Japan have posted each several tens of presentations.  Many more presentations related to TRIZ are posted in English and in other languages.  Users can read and download any presentation without charge.  This seems to be an important and rapidly growing information source.

[Written by Nakagawa T. on 2018/4/3]

## 21 (a) (c)  YouTube    <https://www.youtube.com/> (in Japanese/English/any other languages)    http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

This is a well-known popular site accepting to post any category of videos publicly.  It has accumulated a huge number of videos already and is accepting many more videos daily and attracts a gigantic number of viewers daily from all over the world.

When I searched for videos with the keyword TRIZ inside YouTube, an unlimited number of videos appeared (so I quitted at 400 videos).  Videos in relation to TRIZ are only few in Japanese, but many in English and in other languages.  Video lectures by G. Altshuller himself and by many famous TRIZ leaders in the world are found and viewable freely.  This is a convenient and powerful information source, but you should better find elsewhere a good article mentioning a good TRIZ video in YouTube and get its URL to access the video.

[Written by Nakagawa T. on 2018/4/3]

## 22 (a) (f)  Wikipedia   <https://ja.wikipedia.org/wiki/TRIZ> (in Japanese)    http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

Wikipedia is a 'Free Encyclopedia' which is used very often by ordinary people not specialized in each subject.  Individual pages (or subjects) in Wikipedia are written by any voluntary people and revised many times by many people to improve the descriptions; thus Wikipedia is usually supposed to be a reliable information source.  Unfortunately, however, in the case of TRIZ, such voluntary, collaborative work seems not working well at present (especially so in its Japanese edition).  This is probably because of the complexity of the TRIZ system and the diversity of opinions/understanding by different TRIZ leaders.

Current Japanese edition of 'TRIZ' page in Wikipedia describes, besides a very short general introduction, that the catch-phrase of 'Super-Inventive Technique' used in the initial stage of TRIZ introduction in Japan was misleading, and it lists 40 Inventive Principles with very short explanations.
At moment, the description of TRIZ in Wikipedia (in Japanese) is not recommendable.  Please refer various introductions and articles posted publicly as listed in the present WTSP catalog of TRIZ-related sites.

[Written by Nakagawa T. on 2018/4/3]

## 23 (a) (g)  Mechanical Design Memo 2　　<https://mechanical-engineer48.com/>　(in Japanese)  　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif

This is a personal blog site written by a Chief Engineer having 12 years of experiences in designing in the precision machinery field.  He intends to make notes and documents useful for the profession of mechanical designing and to provide them publicly in the Web to many people working in the area, so as to contribute to releasing the issue of the shortage in good engineers.

Starting in 2013 (or slightly earlier?), he operated the blog 'Mechanical Designing, Memo' on the livedoor server (the first stage), and in October 2017 he moved to 'Mechanical Designing, Memo 2' on a new server sakura (the second stage).  At the first stage 139 articles were posted in 42 categories, and at the second stage 125 articles in 24 categories.  The site receives constant visits from users, i.e., amazingly 1400 page views per day in average (Nov. 2016).

The site posts 5 articles on TRIZ, i.e., What is TRIZ?, S-curve and product lifecycle analysis, Patterns of evolutions of technical systems, 40 Inventive Principles, and 39 Technical parameters)  (of 3 to 5 A4 pages each).

[Written by Nakagawa T. on 2018/4/3]

## 24 (a) (g)  Dai1 Kousha (Akihiro Katahira)　　<http://dai1kousha.html.xdomain.jp/>　(in Japanese) 　http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/LinkInSearch.gif<http://dai1kousha.html.xdomain.jp/zukou2-e.html> (in English, on Fuda-Yose Tool) http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/Circle-E.gif

Akihiro Katahira started to build this site in 2013 and has been developing it further till present.  He understands that the act of Thinking is the repetition of two phases, i.e., 'Thinking out' (to get an idea useful for him/herself) and 'Evaluation and decision'.  Then in this Web site Katahira is trying to figure out 'What should we do to Think out better and more effectively?'.

He posts many interesting working papers on 'How to Think out' according to his own thoughts and in his own terms.  Recently he developed and published a software tool of 'Fuda-Yose method', which allows to handle many labels (on which any keywords, short sentences, or figures are written) to move them around in various arrangements on the Excel window for stimulating users to think out.  The Fuda-Yose Tool is also introduced in "TRIZ Home Page in Japan" together with a number of application examples.

[Written by Nakagawa T. on 2018/4/3; Much enhancement of description is desirable.]