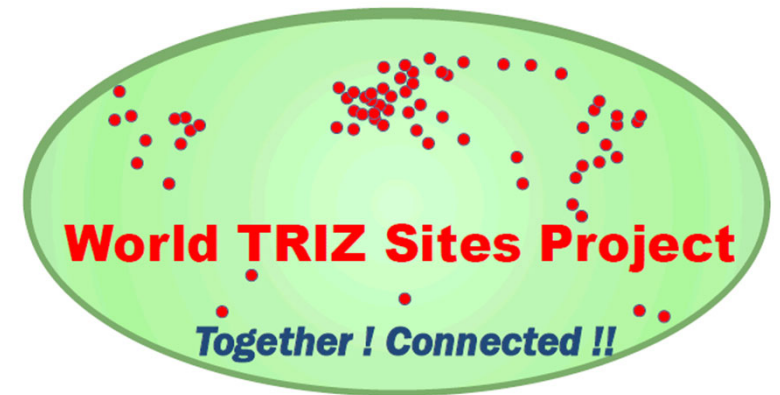


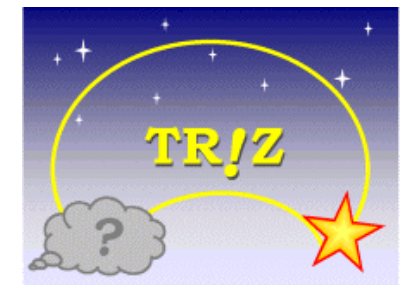
ETRIA TFC (TRIZ Future Conference) 2023

Sept. 12 (Tue) - 14 (Thu), 2023

Offenburg University, Germany (Online)



**WTSP Report (6) Catalogs of TRIZ
and Around-TRIZ Sites in the World
(Preparing for Gamma Edition)**



**Toru
NAKAGAWA
(Japan)**



**Darrell
MANN
(UK)**



**Michael
ORLOFF
(Germany)**



**Simon
DEWULF
(Australia)**



**Simon
LITVIN
(USA)**



**Valeri
SOUCHKOV
(Netherlands)**

Outline of Presentation

[1] Introduction: Our Vision, Basic Policy, and Brief History

Our Vision of World Catalogs of TRIZ-related Websites;
Our Policy: Evaluation Criteria of Websites; Brief History

[2] World WTSP Catalogs : Development and Current State

World WTSP Catalogs: Current Published State (2022 Fall);
Source date for Beta Edition; Internet surveys of TRIZ sites in 52 countries;
40 countries already investigated; 12 Countries: Detected but not investigated;
Most Important TRIZ Sites (©)

[3] Difficulties in Development: Possible Causes & Our Policy

Possible causes and our policy; Expected Values of World WTSP Catalogs:
Who creates the Values? and How?

[4] Concluding Remarks: Summary and Appeal

Summary and appeal

[1] Introduction: Our Vision, Basic Policy, and Brief History

[1A] Our Vision: World Catalogs of TRIZ-related Websites

We build **Catalogs of good websites in the world in the field of TRIZ, and further 'Creative Problem-Solving Methods in general'**, to publish them openly as a reliable information source in the field to serve for industries, education, society, and people.

We, **WTSP (World TRIZ-related Sites Project)**, work to achieve this goal on the basis of international and interdisciplinary cooperation among voluntary professionals.

We pursue to fill the **Three Basic Requirements for Catalogs**, i.e.:

- Req. 1: Collect good items (i.e., websites in our case) widely, evaluate them, select them, and show them in categories.
- Req. 2: Individual items should be introduced in a proper/fair manner briefly or closely in order to guide the readers/users to the items.
- Req. 3: It should be easy for users to find one/many items which match their current interest/needs inside the Catalog

[1B] Our Policy: Evaluation Criteria of Websites

Our Criteria of Website Evaluation

(Apply multiple aspects, to allow the diversity, respecting strong points.)

Quality (reliable, correct, novel, original, comprehensible, up-to-date, ...)

Usefulness (resourceful, reference, handy, practical, effective, ...)

Attractiveness (interesting, easy-to-understand, illustrative, ...)

Accessibility (open access, free/low charge, used by many, ...)

Scope (scope of the theme/field, scope of activities, comprehensive, ...)

Symbol marks for showing the evaluation in 5 grades:

- ◎ **Most important (top about 30) in World Catalogs**
- **Important (next about 100) in World Catalogs**
- **Worthy in World Catalogs,**
- △ **Worthy in Country Catalogs,**
- **Insignificant/irrelevant.**

Evaluate websites even tentatively, then refine the evaluation later.

[1C] Brief History of Creating the World WTSP Catalogs

| | |
|------|---|
| 2017 | Nakagawa proposed and started the voluntary WTSP project (Dec.) |
| 2018 | Japan Part of WTSP Catalogs (as a pilot model). 80 members from 30 countries joined (or signed to join) WTSP at TFC2018. |
| 2019 | Preliminary Edition of World WTSP Catalogs are built: TRIZ sites from 4 countries + 2 internet surveys. Around-TRIZ Sites from 5 Internet surveys. Difficulty in many countries to form voluntary WTSP teams. |
| 2020 | Beta Edition of World WTSP Catalogs. WTSP presentation at 5 TRIZ conferences (MATRIZ, ETRIA, AI, ICSI, Japan) |
| 2021 | Internet surveys of TRIZ sites in 52 individual countries (by Nakagawa). |
| 2022 | Catalogs of Around-TRIZ Sites are enhanced (© 33 sites, ○ 142, □ 244) Catalogs of TRIZ Sites: very little progress (UK and Germany Parts by TN) |
| 2023 | Call for Contributions to WTSP Catalogs (for Gamma Edition). Slow responses. Catalogs of TRIZ sites are still insufficient. |

[2] World WTSP Catalogs : Development and Current State

[2A] World WTSP Catalogs: Current Published State (2022 Fall)

| (Main) Role of site | WTSP World Catalogs | | | | | |
|--------------------------------|-----------------------|-------------|----------------|------------------------------|-------------|----------------|
| | (A) TRIZ Sites (2020) | | | (C) Around-TRIZ Sites (2022) | | |
| | ◎ Most Important | ○ Important | □ World Worthy | ◎ Most Important | ○ Important | □ World Worthy |
| (a) Information sending sites | 9 | 4 | | 10 | 20 | 12 |
| (b) Promotor organizations | 5 | 4 | | 3 | 8 | 6 |
| (c) Public organizations | 1 | 1 | | 3 | 10 | 24 |
| (d) Academia | 0 | 0 | | 2 | 17 | 33 |
| (e) Developer organizations | 5 | 8 | | 5 | 37 | 84 |
| -- (e5) Training organizations | 2 | 7 | | 0 | 9 | 19 |
| (f) Publisshing organizations | 0 | 6 | | 5 | 17 | 13 |
| (g) Information sharing | 1 | 7 | | 5 | 12 | 21 |
| (h) User organizations | 0 | 2 | | 0 | 12 | 27 |
| (i) Personal | 0 | 0 | | 0 | 0 | 5 |
| (Total number of sites) | 23 | 39 | | 33 | 142 | 244 |

[2B] World WTSP Catalogue of TRIZ Sites: Development (1)

Source date for Beta Edition (Fall 2020) Current status (2023.7)

| | | |
|---|---|---|
| <p>Japan (Toru Nakagawa)</p> | <p>Internet search + addition (2018. 4. J/E), Improved (Japan Part) (2019. 7, J/E) TRIZ: ☉ 1, ○ 6, □ 5, △ 45 Around-TRIZ: ☉ 0, ○ 1, □ 13, △ 20</p> | <p>Requesting updates to 33 people. No response</p> |
| <p>Malaysia (Eng Hoo Tan)</p> | <p>Malaysia Catalog (2019. 8) TRIZ: ☉ 1, ○ 0, □ 4, △ 13</p> | <p>Updated manuscript (2023. 4) TRIZ: ☉ 1, ○ 0, □ 4, △ 13</p> |
| <p>China (Run Hua Tan)</p> | <p>China Catalogue (2019. 8) TRIZ: ☉ 1, ○ 1, □ 13, △ 0</p> | <p>Requesting updates: No response</p> |
| <p>Russian- speaking region (Michael Orloff)</p> | <p>Russian-speaking region catalog (2019. 9) TRIZ: ☉ 10, ○ 15, □ 12, △ 0</p> | <p>Updated and Extended Manuscript (2020. 8) TRIZ: ☉10, ○16, □29, □29</p> |
| <p>The World (T. Nakagawa)</p> | <p>Internet survey (English sites) (2019. 9) TRIZ: ☉ 6, ○ 13, □ 29, △ 33</p> | |
| <p>USA (T. Nakagawa)</p> | <p>Internet survey (English sites) (2019. 7) TRIZ: ☉ 6, ○ 11, □ 27, △ 24</p> | <p>Requesting updates: No response</p> |

[2C] Internet surveys of TRIZ sites in 52 countries

(Toru Nakagawa, May-Nov. 2021)

TRIZ sites in each country, English + national language, Yahoo Search Engine.

Difficult due to Language barriers, helped with Google translator and DeepL.

Visited all sites, wrote introduction, graded into 5 levels, (roles not found yet)

40 countries already investigated:

| Region | Count | Det. | ◎ | ○ | □ | △ |
|------------------|-------|------|---|---|---|---|
| A- Europe | | | | | | |
| Austria | 26 | | | | 4 | |
| Czech Rep. | 24 | | | | 4 | 1 |
| Denmark | 14 | | | | | |
| Finland | 21 | | | | 4 | 1 |
| Greece | 8 | | | | 1 | 1 |
| Hungary | 13 | | | | | 2 |
| Iceland | 11 | | | | 1 | |
| Netherlands | 33 | | | 2 | 3 | |
| Norway | 4 | | | | 1 | 1 |
| Portugal | 15 | 1 | | | 3 | |
| Romania | 9 | | | | 2 | 1 |
| Spain | 27 | | | 1 | 2 | 4 |
| Switzerland | 21 | | | | 6 | |

| Re | Country | Det. | ◎ | ○ | □ | △ |
|--------------------|-------------|------|---|---|---|---|
| C- MidEast | | | | | | |
| | Iran | 64 | | 1 | 5 | |
| | Israel | 24 | | | 4 | |
| | Turkey | 27 | | | 4 | 5 |
| D- Asia | | | | | | |
| | Bangladesh | 3 | | | | |
| | Hong Kong | 16 | | | 1 | 4 |
| | India | 45 | | | 3 | 2 |
| | Indonesia | 37 | | | 3 | 5 |
| | Pakistan | 11 | | | 1 | 1 |
| | Philippines | 11 | | | | |
| | Singapore | 15 | | 1 | 2 | 2 |
| | Vienam | 24 | 1 | | 6 | 3 |
| E- Ocdeania | | | | | | |
| | New Zealand | 7 | | | 2 | 1 |

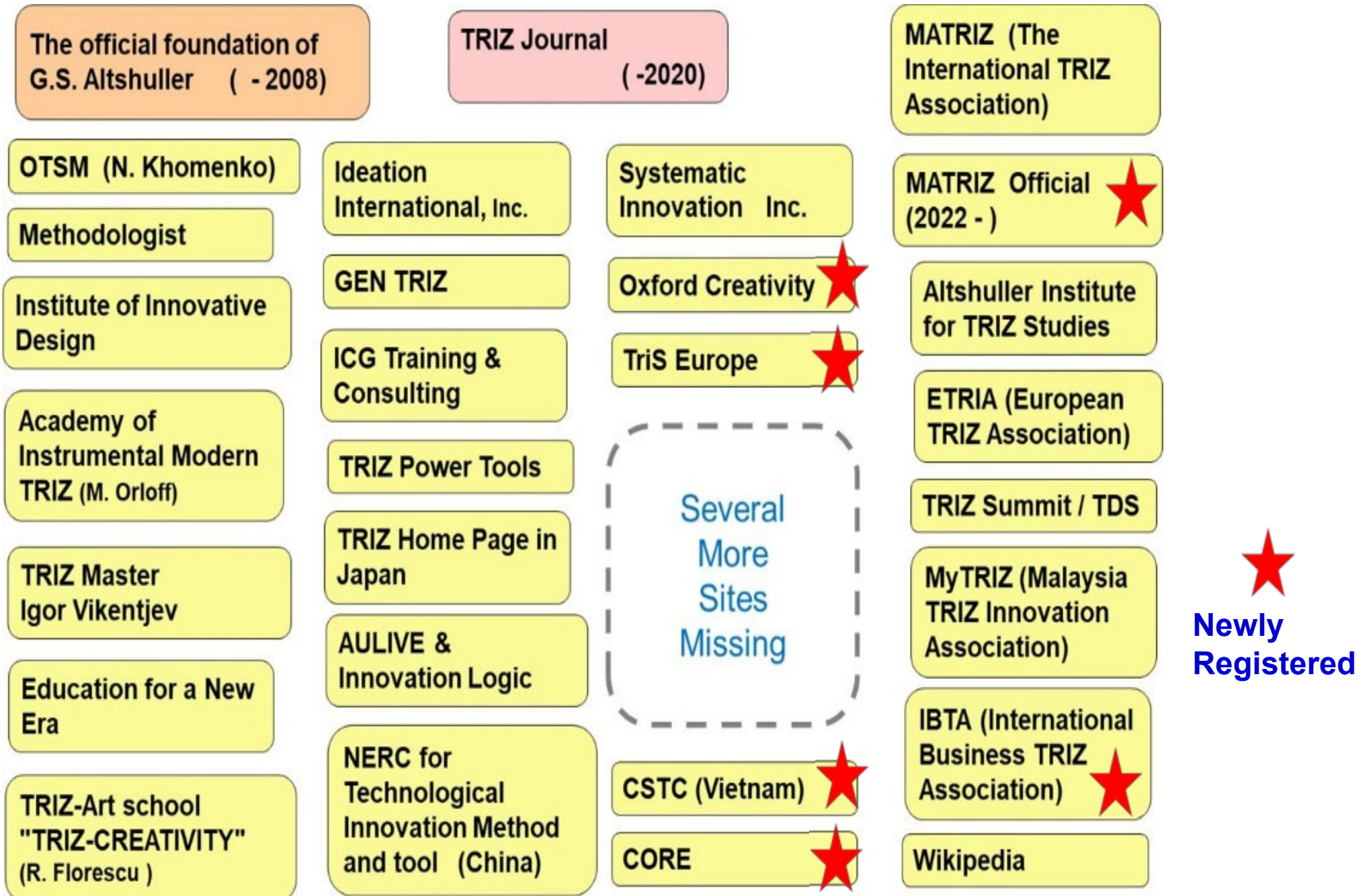
| Re | Country | Det. | ◎ | ○ | □ | △ |
|----------------------|--------------|------|---|---|---|---|
| F- N America | | | | | | |
| | Canada | 30 | | 1 | | |
| G- CS America | | | | | | |
| | Argentina | 10 | | | 1 | |
| | Bolivia | 6 | | | | |
| | Brazil | 41 | | 1 | 6 | 1 |
| | Chile | 12 | | | 1 | |
| | Colombia | 19 | | | 1 | 1 |
| | Costa Rica | 12 | | | | 3 |
| | Mexico | 23 | | | 4 | |
| | Nicaragua | 6 | | | | |
| | Peru | 13 | | | 1 | 1 |
| | Uruguay | 7 | | | | 1 |
| H- Africa | | | | | | |
| | Egypt | 8 | | | 2 | |
| | Kenya | 6 | | | | 2 |
| | Morocco | 13 | | | 4 | 3 |
| | South Africa | 9 | | | 3 | 3 |

[2D] 12 Countries: Detected but not investigated (2021.11)

And their Current status

| | | 2011.11 | | Lately, Current status (2023.7) | |
|-----------|------|---------|---|---------------------------------|-----------------------------|
| Country | Det. | Inv. | Country Editor, Status | Manuscript , Number of websites | |
| UK | 39 | no | Not assigned: Nakagawa Complete Manuscript (2022. 2) | TRIZ : ◎ 6, ○ 5, □ 10, △1 | A-TRIZ : ◎ 4, ○16, □ 30, △3 |
| Germany | 68 | no | Not assigned: Nakagawa Complete Manuscript (2022.12) | TRIZ : ◎ 5, ○ 6, □ 9, △3 | A-TRIZ: ◎ 5, ○ 7, □ 18, △6 |
| Belgium | 22 | no | Not assigned | | |
| France | 55 | no | R. DeGuio, P. Sire : In preparation | | |
| Italy | 50 | no | M. Spreafico : In preparation | | |
| Poland | 50 | no | J. Majchrzak : In preparation | | |
| Sweden | 19 | no | Not assigned | | |
| Korea | 72 | no | M.G. Lee : Version 0.7 (2023. 2) | TRIZ : ◎ 3, ○ 1, □ 22, △1 | |
| Sri Lanka | 6 | no | Not assigned | | |
| Taiwan | 45 | no | M.H. Sung : Preliminary (2023. 7) | TRIZ : ◎ 2, ○ 0, □ 5, △0 | |
| Thailand | 31 | no | T. Pheunghua : In preparation | | |
| Australia | 23 | no | Not assigned | | |

[2E] World WTSP Catalogs of TRIZ Sites; Most Important Sites (©) (Tentative, 2023. Jul.)



[3] Difficulties in Development: Possible Causes and Our Policy

[3A] Difficulties for WTSP: Possible Causes and Our Policy

Difficulty: "Many TRIZ colleagues support the WTSP Project, but very few of them actually work to build the World WTSP Catalogs."

Cause (1) : "Talented TRIZ people are too busy to do voluntary work for WTSP."

Our Policy: We divide the work into smaller jobs, to work in parallel and in cooperation.
We clearly show our vision, good prototypes, examples, and guidelines.

Cause (2): "The vision of World WTSP Catalogs looks too big to achieve."

Cause (3): "I built my site well and open in public. No need to list it in WTSP Catalogs. "

Cause (4): "Internet searches and Lists of links are good enough, without Catalogs."

**Cause (5): "I don't like to write an introduction of my site, to be evaluated by others.
I don't like to take the responsibility of evaluating other's sites as an Editor."**

Cause (6): "We can't get a Team Leader to build our Country WTSP Catalog."

**Cause (7): "What are the "Values" of Catalogs?
Who create the "Values" and How?"**

Policy: We now realize the necessity to show the Values explicitly.
==> Next slide.

[3B] Expected "Values" of the World WTSP Catalogs of TRIZ Sites

| Stakeholders | Possible "Values" to get |
|---|---|
| TRIZ Site Owners | <p>You can promote your website by contributing your site introduction.</p> <p>Brief introduction + Standard-format introduction (mandatory) + Attractive and sufficient introduction in free format (optional)</p> |
| TRIZ Leaders / Experts / Practitioners | <p>A complete overview of TRIZ-related Web sites in the world.</p> <p>Understand the development/progress of TRIZ and related methods. Learn the approaches of various TRIZ groups, and access to their primary information through references.</p> |
| TRIZ. Practitioners / Users / Learners / beginners | <p>Reliable information source for learning/studying TRIZ and related methods.</p> <p>Excellent and important websites are shown in categories. Get an overview of websites, and visit suitable sites to study and research. Initially, visit easy-to-understand sites in your home country and language; Later, visit excellent and understandable sites in/out of your home country.</p> |
| TRIZ itself | <p>The progress and development of TRIZ will be visualized.</p> <p>International & interdisciplinary cooperation are encouraged.</p> |

[3C] Who creates the "Values"? and How?

Individual Site owners will

Present their sites in an appropriate, clear, and attractive manner, to attract TRIZ learners/practitioners/experts to their sites.

They mainly create the "Attractiveness" of the WTSP Catalogs.

Collectively, TRIZ leaders/experts/practitioners will

Collect excellent sites, evaluate, select, categorize, and introduce them.

The work of editing and publishing creates the Values of the WTSP Catalogs.

They mainly create the "Usefulness" of the WTSP Catalogs.



**All of you can contribute
to create the Values of the World WTSP Catalogs.**

**The World WTSP Catalogs provide great Values
to all the people who learn and use TRIZ in the world.**

[4] Concluding Remarks: Summary and Appeal

(1) World WTSP Catalogs of TRIZ-related Sites are Already Published.

Let's learn various methods, knowledge, practices, and activities.

Expand our horizons to our whole country, to the world, and to related fields.

The Catalogs are rich with well-selected, reliable, and attractive information.

(2) Please introduce your sites, in standard format and detailed free format.

You can fully present your ideas, methods, knowledge, practices, and activities.

The catalogs publicize your thoughts and activities; effective for your business.

(3) Let's build and enhance Country Parts of WTSP Catalogs.

Form a Team of volunteers to build WTSP Catalogs of your country.

List up TRIZ websites you know and add more with Internet search.

Visit all the listed sites in your country one by one, to write brief introductions.

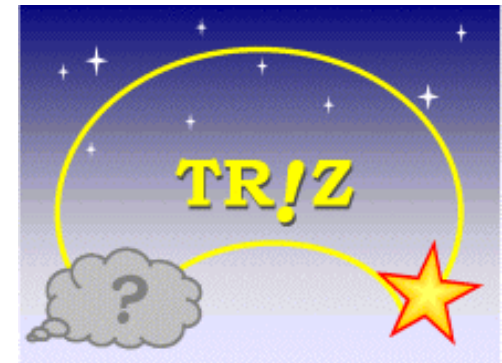
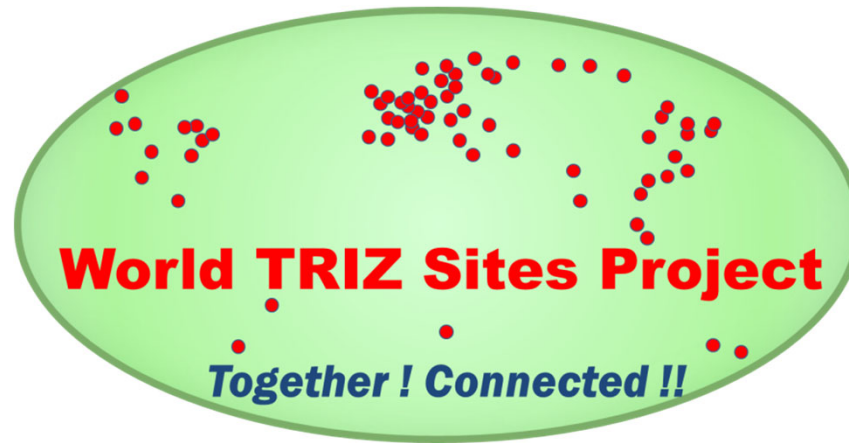
Ask site owners of all the sites to write their site introductions.

Edit them into Manuscript of your Country Catalog, with discussion in your Team.

(4) Let's revitalize TRIZ in every country in the world

for the benefits of industry, education, society, and people.

(5) We propose to create a new website representative in TRIZ ("SI-Review") that can take over the roles of Altshuller Foundation and TRIZ Journal.



Thank you for your attention.

Toru Nakagawa (Osaka Gakuin University, Professor Emeritus)
nakagawa@ogu.ac.jp

Editor of "TRIZ Home Page in Japan" (in Japanese and in English)
<http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/>

World TRIZ-related Sites Project (WTSP) Project Leader

Let's work Together ! Connected !!