U-SIT And Think News Letter - 60

Updates and Commentary

Unified **S**tructured **I**nventive **T**hinking is a problem-solving methodology for creating unconventional perspectives of a problem, and discovering innovative solution concepts, when conventional methodology has waned.

Dear Readers:

. I'm just back from India and have made a partial trip report into a mini-lecture on the use of assorted heuristics to solve a people problem. This is an example of using USIT techniques to solve a non-engineering-design problem.

. The last mini-lecture examined heuristics classified as "Tricks-of-the-trade". See this letter's Feedback-section for an interesting reader response.

3. Mini USIT Lecture – 60
5. Heuristics for Solving Technical Problems

Heuristics solve a "people problem"

"People problems", of the psychological kind, can be difficult to address.
Not yours.
Mine!

This mini-lecture is devoted to examples of using heuristics to solve a people problem – **simplify**, **root causes**, **single unwanted effect**, **humor**, **sarcasm** and other heuristics not identified. I'll

begin with the problem situation.

The problem arose during our "Heart of India" tour to the north-central part of India, a 16-day commercial tour, by a US company. Hints of dissatisfaction with the organizing company began in London's Heathrow airport as we met other members of our group. Complaints were being voiced about the bad flight connections the company had arranged and about conditions on the overseas flight.

My wife and I had been up about 30 hours by the time we arrived at our hotel in New Delhi. With

stops and equipment changes in Washington DC and New York, we were very tired on our arrival and not prepared for what happened next. We arrived in the hotel near midnight and waited an hour in the lobby before being informed that our rooms would not be ready until 3:30 a.m. We actually got into our rooms at 5:00 a.m.!

Between midnight and 5:00 a.m. I began mentally compiling a log of things-gone-wrong and things-gone-right (a business practice I learned at Ford Motor Company). The log had events, times, locations, and witnesses. However, it was not well organized and I couldn't seem to find a good scheme for its logical organization. Its purpose was clear; namely, to inform the president of the travel company of my deep dissatisfaction. Listening to others voice their complaints added fuel to my log but didn't clarify it. I decided to postpone further thinking on this issue until I was more rested (there's a heuristic here).

Our first trip was a visit to the India Gate, a memorial to soldiers. There I accidentally discovered a small owl sitting on a low limb of a tree watching me. After examination with binoculars, I approached him slowly to get within camera range. Suddenly, he ran up the limb and into a hole in tree. Disappointed, I started to leave, but then decided to go to the tree and examine the hole. I did, and discovered two large eyes staring at me. I got my picture!

During the day my mind jumped back and forth between negative thoughts about my log of things-gone-wrong and positive thoughts about the potential of birding in India. Logical order was still lacking in the log. I started to analyze why I couldn't introduce any logical order when it occurred **to simplify** the log. That led to examining its contents introduced thus far and then the realization that it was too complex. It was immediately evident to me that my bent for precise observation and detailed description was creating unnecessary complexity. This led to considering **root causes** of the complexity, which revealed that more than one unwanted effect was behind it. So I then focused on identifying the purpose of the log and a **single unwanted effect**.

The purpose of the log was clear; to establish a basis for demanding some sort of recompense for the inconveniences and mal treatment already encountered. This realization raised the question in my mind of why was recompense needed? The answer was obvious: because of the negative impact on my vacation. That did it! I suddenly saw that spending time on this log was a totally negative experience that was continuing to grow. The unwanted effect was <u>negative experience</u>. Now I had a new approach to consider.

A solution heuristic of USIT is to convert an unwanted effect into a function; i.e., into a desirable effect. In this case, I needed to convert my negative experiences into positive ones. I could simply forget the log and have only positive thoughts, but some of my negative input came from my traveling companions. How was I to change their negative thoughts? I was sure that they would not be interested in my musings about structured problem solving and our group interactions. The unwanted effect needed modification. I thought of <u>personal and group negative experience</u> as a more appropriate wording. However, this adds more objects to a simpler problem. It works against simplification. So I decided to consider <u>personal, negative experience</u>, find solution concepts, and then determine if any could be expanded to apply to a larger set of objects.

At this point in the problem analysis, I recalled the positive effects of humor on one's psyche. Now I had a solution concept. I needed only to think of old jokes, or create new ones, to smother negative thoughts. Furthermore, the jokes could also be shared with my companions without their need of knowing my motives. As I tried to resurrect an old joke it appeared that this was not going to be easy. My ability to

recall old jokes on demand was useless. Another problem has been discovered.

If I can't recall jokes I'll just have to invent them. At that, I have some ability – at least the ability to add a humorous twist to a discussion topic. But, this could fail on demand also – another unwanted effect. A reliable method was needed for creating instant humor. I tried to analyze how repartee works for a comedian. An idea came to mind: sarcasm. Ad hoc sarcasm can fit many situations. Our situation, the one that caused me to contemplate a log of things-gone-wrong, was rooted in unfulfilled expectations. That's it! Sarcasm directed at expectation would be my game. I needed only to find the causal expectation in any negative comment and address it sarcastically.

This whole trip was based on expectations. Some were invented in our own minds and some were provided in the company's brochure describing the tour. An especially big expectation (in my mind) was an impending sighting of wild tigers in a game preserve to be visited. The expectation was already ripe for sarcasm because it was advertised with the cautionary note that, as a result of their decreasing numbers, sometimes tigers are not found.

At the first opportunity, I brought up the topic of potential tiger sighting and cast my question in dripping sarcasm. "Just how many tigers can we expect to see?" From that moment, tiger-sighting sarcasm became a staple of conversation that everyone seemed to participate in.

Then "tiger-sighting day" came. Two jeep trips into the jungle were planned. The morning excursion had no tiger sightings. This made the sarcasm of the afternoon the more poignant. We saw many interesting birds, monkeys, deer, and crocodile, mostly at the lake where we stopped as our afternoon trip came to an end. Suddenly our guide said, "I think I see a tiger!" All binoculars turned into the direction he was facing and one by one we each saw the tiger. He was lying in tall grass on the edge of a clearing where a small group of spotted deer was feeding. In a moment, he got up and walked out of the grass, along the edge of the clearing, and lay back down in the grass with a better view of the deer. Then we saw a second tiger lying in the grass watching the deer. Two tigers! I got my picture!

Thus, a trip that began with a depressing mood ended on a very high note. My own assessment was that the trip became the more interesting with each passing day. In addition, the trip provided an unexpected challenge to apply USIT in solving a personal, people problem, having my own expectations and sour mood as the problem situation.

6. Feedback

Rich Kucera sent in two articles concerning specialized heuristics. They are both rich in tricks-of-the-trade-type heuristics. One discusses techniques for stalking and the other gives heuristic adivse on tracking. It interesting to see the wealth of heuristic-type information packed into these two articles. They are both written by Rick Curtis, Director, Outdoor Action Program, Princeton University. One is the "OA Guide to Nature Observation & Stalking" and the other is "OA Guide to Animal Tracking".

7. Papers and essays

The following materials can be read by clicking on their titles. Links are also available on the USIT website (www.u-sit.net/Publications)

1. "Injecting Creative Thinking Into Product Flow"
2. "Problem Statement"
3. "Metaphorical Observations"

8. Other Interests

1. Have a look at the USIT textbook, "Unified Structured Inventive Thinking – How to Invent", details may be found at the Ntelleck website: www.u-sit.net (*Note*; not at www.ic.net)
2. USIT Resources Visit www.u-sit.net and click on Registration.

Publications	Language	Translators	Available at …
1. Textbook: **Unified Structured Inventive Thinking – How to Invent**	English	Ed Sickafus (author)	www.u-sit.net
2. eBook: **Unified Structured Inventive Thinking – an Overview**	English	Ed Sickafus (author)	www.u-sit.net
	Japanese	Keishi Kawamo, Shigeomi Koshimizu and Toru Nakagawa	www.osaka-gu.ac.jp/php/nakagawa/TRIZ/
	Korean	Yong-Taek Park	www.ktriza.com/www/usit/register_form.htm
"**Pensamiento Inventivo Estructurado Unificado – Una Apreciación Global**"	Spanish	Juan Carlos Nishiyama y Carlos Eduardo Requena	www.u-sit.net
3. eBook "**Heuristics for Solving Technical Problems – Theory, Derivation, Application**" -- **HSTP**	English	Ed Sickafus (author)	www.u-sit.net
"**Heurísticas para Resolver Problemas técnicos – Teoría Deducción Aplicación**"	Spanish	Juan Carlos Nishiyama y Carlos Eduardo Requena	www.u-sit.net
4. **U-SIT and Think Newsletter**	English	Ed Sickafus (Editor)	www.u-sit.net
	Japanese	Toru Nakagawa and Hideaki Kosha	www.osaka-gu.ac.jp/php/nakagawa/TRIZ/
	Korean	Yong-Taek Park	www.ktriza.com.
Mini-lectures from NL_01 through NL_59	Spanish	Juan Carlos Nishiyama y Carlos Eduardo Requena	www.u-sit.net click on Registration

Please send your feedback and suggestions to Ntelleck@u-sit.net and visit www.u-sit.net

To be creative, U-SIT and think.

