The English Summary of *Mangement by Information* Newsletter

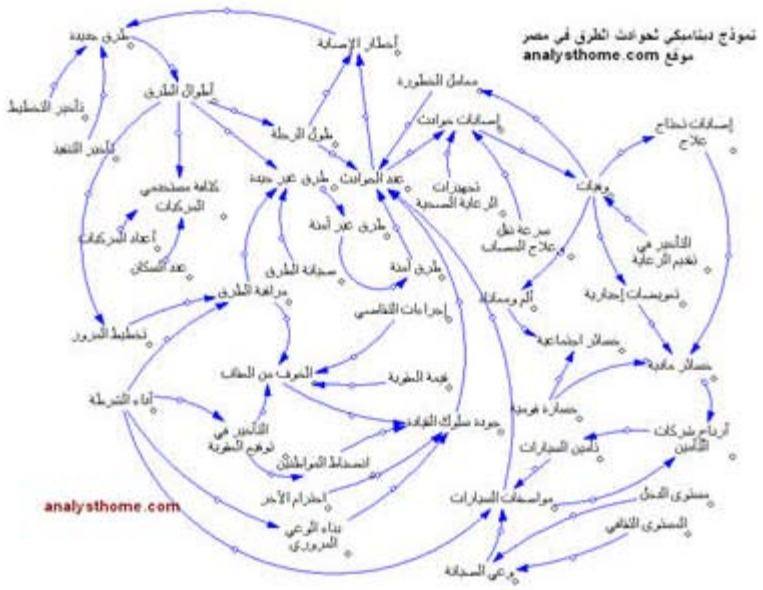
Editor's Column

Egypt Towards Systems Age

The first issue of our newsletter was published in Arabic in January 2008 for the purpose of applying systems thinking ideas and synthesis to real life problems. After the first issue, we decided to dedicate number of issues to road accidents after this increasing number of fatality on roads, associated with large national economic loss. As we were preparing our materials, we were shocked by the loss of one of our scientist, Dr. Magdy Ismail Mostafa, in a road accident while he was crossing the street. It became evident that roads in Egypt became a dangerous zone, and need attention from all of us. The conditions of our roads concern many people, and Dr. Gala was one of these concerned citizens. In this issue we present an email sent by Dr. Galal Hasan Galal Edeen, Chairman of Computer Science Department in Cairo University showing his concern towards roads and driving.
As we continue with our message we hope that this English issue will encourage more feedback from readers with more articles to be published.

Systems Dynamic Model for Road Accidents (Published in the Arabic issue)**:**
By using systems thinking we can build different models to study the interacting objects of this complex problem. One of this models is the dynamic model as shown in the following graph. Using this simple dynamic model we can build deeper understanding of the road accident problems and identify all of its interacting elements.

(See the Arabic issue to view the model)



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Why this Newsletter now

At this site we believe that building the power of free thinking is the key for existence in the present system age. Nowadays, we need more than any other time to unleash our thinking power. In this context we know that thinking power of societies is not equal to the sum of its people's thinking. It is more powerful, wider, and deeper than this simple summation. We also know that when people loose their ability to think freely, their future seizes to exist and may vanish. We need to think together in singles, groups, and associations, and not to think against each others, or under the control of others. Though, in order to think together we need to agree first on thinking rules, tools, and methodologies. By doing so, we can get more logical results to the extent that our differences will become close to vanish. We think: in order to get to this stage and to be able to think together, we need different education and training to be used to generate new mechanisms and different thinking tools. This is what this site is trying to introduce here..

Letter to Prime Minister from Dr. Galal Galal ElDin (Published by permission)

Subject: Most dangerous roads on the planet: a possible way out

Date: Sat, 05 Jan 2008 10:31:52 +0200

From: Galal Galal-Edeen Reply-To: galal@acm.org Organization: Cairo University

To: **questions@cabinet.gov.eg**

Your Excellency,

Everyday, as I get into my car and start to drive to work, I wonder if I would get back safely to my children. The status of Egyptian road traffic and the behavior of drivers is quite horrendous and simply unbelievable. I am sure anyone who drove over and 250,000 kilometers in Europe, over 15 years, like myself, would have the same feeling.

Please just consider the following scenario and guess what would happen if:

1) Compulsory Insurance premiums are calculated on the basis of the DRIVER's accident and serious traffic regulation violation history. It would not be difficult to build a database of offenses using the National ID number, which would be required everytime a driver is quoted for compulsory insurance premium.

2) The highway code (law) is printed in an attractive print, and all traffic signs illustrated in a way that most drivers can read and understand. Every driver receives a copy and signs at the point of getting or renewing a driving license, or committing certain driving offenses.

3) A CD-based training kit is developed (very carefully) to train drivers through various scenarios (e.g. how to change lanes, how to approach and negotiate a crossing).

4) A national standard is developed for road design and signage, perhaps in collaboration with an international institution like the Traffic and Road Laboratory http://www.trl.co.uk/. For example: that thick white emulsion (not just white paint) or certain specification is used to mark lanes on ALL classes of paved traffic roads. etc. etc.

5) Major highways are continuously patrolled with high-response (and carefully selected) vehicles, driven by well-trained drivers, with continuous-loop digital video cameras (of the type fond in many mobile phones, but that overwrites the memory content every 15 minutes or so unless saved or sent wirelessly to an on-line database), with multiple cameras to cover around 270 degree angle approx. so that careless and dangerous drivers are caught on tape and fined appropriately. Ordinary professional citizens (e.g. lawyers, doctors, university professors etc.) can be deputized & authorized and given this technical kit to record offenses, which would spread the net widely.

6) A point system is established to mark the driving licenses of dangerous and careless drivers (but a careful description of offenses that constitute dangerous and careless drivers will have to be developed AND publicized). Drivers who reach a certain limit are requested to attend an expensive driving school and re-take the driving test.

7) Importantly: that the experience limit is removed for drivers wishing to qualify as professional or A & B drivers: in this way more drivers will qualify which will help reduce unemployment, and it would be more economically feasible to ban heavy goods vehicle & bus drivers from driving for a certain length of time (since there will be a reserve force of able and trained drivers). Persistent offenders can be disqualified for life from driving. How much does all of this cost: I imagine a billion LE, if spent by a properly qualified board and given appropriate, overriding powers over all aspects of road traffic and vehicle safety, would reduce serious accident rates and associated fatalities & serious injury by at least 30% over a 3-4 year period. I hope this helps.

With regards,

Galal Hassan Galal-Edeen, PhD --

Dr Galal Hassan Galal-Edeen

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Head, Department of Information Systems

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How we introduce this Newsletter

We introduce this Newsletter to be available for those who wish to publish their articles in the field of Systems Analysis, Systems Thinking ,

and Systemic Thinking, and Problem Solving . In order to administer this publications we introduce number of policies which we follow in writing and publishing these articles. These policies are:

1. Articles should address problems published in any of the newspapers, or magazines, or any of the media and attracted the attention of the public .
2. Articles have to use facts based on documented references
3. Articles have to be objective and not biased to any ideological, political, or religious faction, and use systems thinking tools
4. Articles should not adopt or promote any predefined conclusions, it should only be based the analysis results.
5. Articles should be written in a writing style between journalistic (which present news and seen) and scientific writing styles (which follow the scientific approach in presenting the problem with references and facts)
6. Articles should present and use analyses tools
7. Publications will be presented by author's name, and should be sent as electronic file as an attachment to **info@analysthome.com**

Topic of the Issue

Road Accident and Information Society
Case Study and Systems Thinking

In previous issue we addressed number of subjects as:
a. Crises of bread loaf (Fahmy Hewidy Article in AlAhram 25/3/2008)
b. Living expenses and wage structure (President Mubarak Statement in AlAhram 20/3/2008)
c. Cost of fertilizers and its effect on Tomato prices (President Mubarak statement)
d. Increase in road accidents rate (AlAhram 20 March, 2008)
e. Consumer Protection Agency and drinking water quality (closing 4 factories - AlAhram)
f. Roads and public transport crowding, and traffic regulations (Social values and traffic)

These subjects were presented for analysis by our readers and visitors, but no response was received up to this moment. We hope that through this English newsletter we will get more feedback from our readers.

In this issue we select road accidents to be our subject of the month, but we address it from different angle.

Road Accident, Case Study, and Information:
In order to examine road accidents, it may be useful to use some indices and coefficients to reflect the status of road accidents in Egypt, and to compare it with other international data. The following table shows some statistical numbers taken from various Egyptian Newspapers.

Population	Insurance	Road length	ASI	Number of Cars		Injury	fatality	Accident	Year
				Private	Total				
				1.2					2001
									02
							8688		03
			2.6			29000	7577	30	04
		45000	3			30000	9000	30	05
78.887			3.2			20000	6200	19.2	06
80.335	13		3	2	4.25	30000	6700	22.4	07

number of accidents in thousands, cars in millions, roads lengths in km, population in millions,

In defining these factors, we find Accident Severity Index (ASI), which gives number of fatality for each 100 accidents, is to be considered the most important coefficients for accidents analysis. Other factors are: Intensity of Cars, Losses of Accidents (from insurance) , Ratio of Fatalities to Injuries, and Death Risk which depends on the length of roads or number of trips on the roads. And some of these factors are given in the previous table which gives data about accidents losses during the period from 2003 to 2007, and it only shows static isolated numbers, and does not display their interaction or effects, or factors affecting them.

To reveals secrets and facts hidden within these numbers we propose a case study approach, which may be conducted on one or more actual accidents, where we trace the following conditions related to each accident:

1. Climate conditions of the accident (time and weather)
2. Geographical conditions (place-road-road specs-road safety measures)
3. Dynamic conditions of accident (speed-directions-collision mechanism)
4. Social conditions (driver condition-injured condition-accidents and injury reports)
5. Technical conditions (car condition-car data-dynamical circumstances)
6. Health conditions (type of injury-first aid and treatment-ambulance response)
7. Legal status (accident reports-timing for calls and response- documentation)
8. Safety conditions (road level of safety-calls and response mechanism-timing documentation-mechanism for help-evacuation methods)
9. Learning effects (speed of justice response-method of punishment and execution-law and actual punishment used-how fast the insurance applied-medical response-time to recover-total loss from accident)
10. Stats of documentation (documentation mechanism-methods of documentation-quality of documentation-mechanism of document storing - retrieving mechanism-standardization level in documentation)

Conducting an analysis on actual accident by examining all previous conditions will identify all interacting elements of our traffic system, and will give us a true and clear picture on: where we are? and which way to go for improvement? and what modification we need to carry for our traffic law?

There are number of methodologies for Case Study all have the purpose to collect detailed data and information which can be used to build a trend for incidents which may reveal a pattern or a phenomena with sufficient merit to build a theory or (**Grounded Theory**).

For the best of the author's knowledge Grounded Theory was not used in any study in Egypt dealing with road traffic accident, either in Arabic or in English languages, and by publishing these data here we direct the attention of our readers to the importance of this approach. We will dedicate number of our issues to shed more light on Grounded Theory and its applications, and we hope to get feedback from our visitors as well.

تحليل النظم في الصحة

Healthcare and Road Accidents

We propose the following two subjects:

1. First aid bag in traffic law: Its specifications and its use in building discipline
2. Dynamic model for road accident evacuation

تحليل النظم في التعليم

Education and Road Accidents

الموضوعات التي يطرحها هذا العدد :

1. Effect of elementary education on building road and traffic discipline
2. Design and build a fun computer program for kid to teach rules and respect of using roads

تحليل النظم في الصناعة

Industry and Road Accidents

To invite our visitors to investigate:

1. Dynamic Model for Car Maintenance and its Effect on Road Accidents
2. Building a Model for Railroad Maintenance in Egypt

تحليل النظم في الزراعة

Road Accidents in Villages

1.Planning Mechanism of Villages Roads, and Its Effect on Road Accidents

تحليل النظم في السياحة

السياحة وحوادث الطرق

Tourism and Road Accidents

We would like to address the following subject:

1. Developing a Dynamic Model to Study the Effect of Road Accidents on Seasonal Tourist Visits Rate to Egypt

تحليل النظم في السياسة الدولية

موضوعات للتحليل

نطرح في هذا العدد السؤال التالي:
هل تؤثر حوادث الطرق من حيث المعدل والحجم على صورة مصر في المحافل الدولية؟

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تحليل النظم والبرمجيات

Road accidents and information systems

In this issue we propose the following projects for IS

1. Developing a road accident tracking system using GIS

2. Analysis and design of a Road Accident Management System (RAMS)

3. Developing a computer simulation model to predict fatality rate using statistical data with dynamic model

4. Developing and implementing Road Accident Police Documentation System

5. Reengineering of Road Accident Judicial Procedures

6. Development of Road Accident Strategical Information System (RASIS)

7. Developing and Building a Dynamic Model for Social and Economical Loss Prediction

These limited number of projects may help in building a mode for road accident relief effort, towards an effective reform for traffic law, planning and regulation

Blood Shed on The Ring Road
39 cars Collided, 4 dead and 60 injured in One accident
(Read More....)




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