Dear Readers!

The Year 2000 is unique, not only for the world at large (and unfortunately for many computer systems) but also for IFSR:
On March 12, 1980 the IFSR was founded, we are holding our 10th Fuschl conversation and we have (almost) 20 volumes of the IFSR Newsletter! So there is reason to celebrate!
In every even year IFSR has events of long-range importance: the Fuschl Conversation, the presentation at the EMCSR-meeting in Vienna and the Board Meetings. The Fuschl Conversation is the event with the longest lead time. We are already actively considering topics for it: We will again choose topics which are of high relevance for the human society in relation to the surrounding environment, both natural and technical. We would therefore encourage you to contact us and to submit suggestions for topics.
The European Meeting of Cybernetics and Systems Research (EMCSR), is scheduled for April 25th to 28th .2000 and is a focal point in the systems area. As you know, IFSR sponsors the attendance of several researchers who cannot afford to come on their own budget. We also intend to present our Federation to a wider public.
According to tradition, we will also hold our biannual Board Meetings during EMCSR (on Wednesday or Thursday evening). There we will discuss some administrative issues of the IFSR together with future activities.
On Saturday of the EMCSR-week we will also hold a Strategy Meeting, sketching IFSR's path into the future.
During the following week (April 30th – May 5th) the 10th Fuschl Conversation will take place. Our conversation topics will deal with long range perspectives, looking far into the 3rd millennium.
In the meantime the Executive Council will meet in Monterey, USA, on July 27th and 28th to plan for these events! If you have any suggestions, hasten to send them to any of the officers of the IFSR!
Sincerely

Gerhard Chroust

THE GOALS OF IFSR

Approved by the IFSR Board at it's founding Meeting in June 1980 in Vienna, Austria
- Strengthen the programs of member societies by their involvement in the program and network of IFSR. (Social Learning Goal)
- Facilitate (encourage) the development of Systems science in countries in which such programs do not yet exist or are now developing. (Membership Development)
- Develop – Implement – evaluate IFSR level programs to meet the purposes of IFSR; to advance systems science. (Synergetic Goal)
- Identify inventory system science relevant resources, acquire those and make them accessible to member societies. (Resource Development Goal)
- Make contribution to the larger (global) scientific community and be of service to improve the (global) human condition and enrich the quality of life of all. (Global Mission)

THE FOUNDING MEMBERS:
- *Österreichische Studiengesellschaft für Kybernetik (Austrian Society for Cybernetic Studies)*
- *Society For General Systems Research*
- *Systeemgroep Nederland*

INVITATION TO THE FUSCHL CONVERSATION 2000

In April 2000 we are celebrating our tenth Fuschl Conversation. Preparations are well under way. Based on past successful experiences we will form five groups of five to six participants, which will discuss, as Bela Banathy put it so aptly
"How can we use the insights gained from systems sciences for the improvement of the human condition?"
We therefore invite people, interested in taking an active part in the Fuschl Conversation 2000 to submit a topic and subsequently to act as a 'moderator' for this topic for the five days in Fuschl near Salzburg. The topic should be timely and fit to the 'spirit of Fuschl'.

More details:
Bela Banathy, International Systems Institute, 25781 Morse Drive, Carmel, CA 93923, USA
tel/fax +1 (408) 625-3178
BHBANATHY@AOL.com or
Gerhard Chroust, Kepler Univ. Linz, 4040 Linz. Austria, tel +43 732 2468-866,
GC@sea.uni-linz.ac.at

Previous Proceedings:
B.H. Banathy, G. Chroust (eds.): The Eight Fuschl Conversation (Fuschl Am See, April 14-19, 1996) Austrian Society for Cybernetic Studies, Vienna, Sept. 1998, ISBN 3 85206 145 8
M. Beneder, G. Chroust (eds.): Designing Social Systems in a Changing World (The Ninth Fuschl Conversation) Austrian Society for Cybernetic Studies, Vienna, Sept. 1998, ISBN 3 85206 148 2

NEW THOUGHTS

Stephen Sokoloff continues the discussion concerning the effects of Internet technology on our society, following an article on the effects on higher level education (G. Chroust:: New Reading, New Learning, New Teaching – Will the University System Change? IFSR Newsletter vol. 18 (1999), no. 1, pp. 2-3.

CAN CULTURAL DIVERSITY SURVIVE THE INTERNET ?

Stephen Sokoloff
Stefan Fechter Weg 1/49
A-4020 Linz, Austria
Tel. and fax: ++43 (732) 792657

Traditional cultural systems, like species of plants and animals, originate and thrive under conditions of isolation. They are generally self-centered and exclusive. Their participants, united by common knowledge, experience, beliefs and behavioral responses, are often suspicious of, if not hostile to, outside influences.

Enlightened individuals plead for an attitude of receptivity towards foreign ethnic groups, but unfortunately such open-mindedness often has long-term negative effects. It seems to inevitably lead to a depletion of humanity's reserves of cultural information. Dialects and local tongues die out as the range of everyday commercial, personal and intellectual interactions widens, and people increasingly adopt national and international languages. The strength of adherents' devotion to their own faiths is often reduced as they come to appreciate the value of other religions. Ancient rituals and customs fall

into oblivion as people become less willing to spend time and energy practicing them, and traditional wisdom is then soon forgotten. This same pattern is repeated in innumerable other areas, such as food, clothing, and architectural styles; an increase in cross-cultural communication is coupled with a diminution of the exchangeable information. As a result the world is becoming more uniform, more boring, and losing the wealth of "flavors", the richness conferred by diversity.

Saving moribund cultures will certainly prove infinitely more difficult than conserving endangered species of organisms, since we cannot simply place human beings in reserves and compel them to pursue modes of life with which they have ceased to identify. One approach is to just let matters take their course and hope that a variety of new forms of expression emerge to replace those that vanish, but expecting this to happen seems overly

optimistic. Therefore we should consider active measures. Local populations might tend to remain more intact if satisfactory employm ent opportunities for their members were made available in their own communities. Groups could then be encouraged to maintain their traditions, not out of a feeling of superiority but in order to share them with the rest of humanity. It is, however, questionable whether this sort of inducement would prove as motivating as xenophobia and feelings of cultural superiority. Being at a loss to say precisely what, if anything, we should do, or to propose a complete program, I would like to ask for your advice an d opinions. The *IFSR Newsletter* provides us with an excellent forum for an exchange of ideas on this problem, and of course you should feel free to write, fax or phone me as well.

MEMORIES OF YESTERDAY

CYBERNETIC ANIMALS AT THE TECHNICAL UNIVERSITY OF VIENNA

G. Chroust

Around 1960 Cybernetics was the path into the future. Numerous cybernetic machines, usually names after animals were being constructed to study phenomena of artificial intelligence.
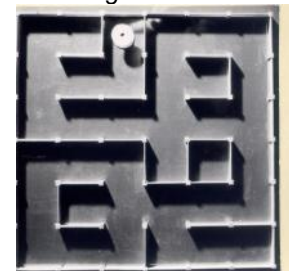
Claude E. Shannon built a maze-solving mouse to study a labyrinthian problem – telephone switching systems: A call must make its way to its destination by the shortest possible path. The device contains a maze with fences that could be arranged to create various paths. The finder, built as mouse named 'These us', is moved by a magnet. It gropes its way from field to field and stores the direction, if it is possible to step on a field. If there is a wall, it will turn around and will try the next direction. Unless the mouse comes in a loop it will find the goal. It escapes from a loop through a pedometer which counts to the highest possible number of steps. The way from the entrance to the goal is stored in form of the direction in which the mouse left the field. One can put the mouse everywhere in the maze, it will follow the stored direction to the goal. Only if it comes to a new field or if the maze is changed, it will use a search algorithm, otherwise it will use the stored information.

At the Technical University of Vienna Richard Eier, one of the assistants of Heinz Zemanek re-build the maze-solving mouse around 1959. He improved Shannon's method by applying the idea of Ariadne's thread. The mouse marks each field with the path information, using the concept of Ariadne's thread. When winding up in a dead end it retraced, duplicating Ariadne's thread: Whenever the mouse finds an exit from field where one tread leaves and another returns, it recognises a dead end. Similarly the mouse is able to detect circles in its path.
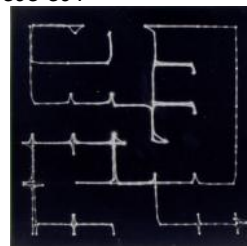

Richard Eier demonstrating the Mou se

The pictures show a specific labyrinth, the initial path of the mouse (starting at the lower row) and finding its way to the 'target (top row, the round object). Running back it avoids all loops, using the information provided by Ariadne's thread.
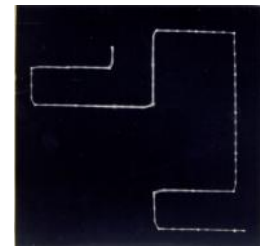

The labyrinth

Eier, R. Zemanek H.: Automatische Orientierung im Labyrinth, Elektron. Rechenanlagen, vol. 2 (Heft 1), 1960, pp. 23--31
Heinz Zemanek, Weltmacht Computer - Weltreich der Information.- Esslingen, München: Bechtle, 1991, pp 303-304

The initial path   *The optimised path*

CONFERENCE ANNOUNCEMENTS

For contacts and further information see Calendar of Events

IDIMT-99 - INTERDISCIPLINARY INFORMATION MANAGEMENT TALKS

Between Sept. 2nd and 3rd, 1999, the "University of Linz" organizes in cooperation with "The Prague University of Economics" the IDIMT-99 conference (Interdisciplinary Information Management Talks) for the 7th times in consecutive sequence.

The aim of this annually talks is to provide an interdisciplinary and informal forum for an interchange of concepts and ideas on Information Management, Information Engineering, Business Processes and related topics. The increasing interest in information as a vital resource makes it necessary to provide both technology transfer and also opportunities for establishing technical and commercial cooperation across borders.

The cooperation of technical and economic research institutes and of researchers with different economic and historical backgrounds provides an challenging basis for interdisciplinary.

This year's conference is divided into one panel discussion (Theme: Future Life in Information Society) and seven different session, whereby the sessions offer a wide variety of different topics like:
Business Process Reengineering - Hopes and Disillusions
Software Process Standardization in IS/IT
Cooperative Activities and Distributed Communication
Human Dimension of IS
Concepts and Practice in IS Development
Quality Management and Audit of IS/IT
Applied Systemic Thinking

The conference takes place at the Sporthotel "Olympia" in Zadov, a lovely little village in the Bohemian Forest at an altitude of 1000m. It is located 60 km north of Passau, 150 km south of Prague, and 130 km north-west of Linz.

SYSTEMS SCIENCE 2000
INTEGRATIVE APPROACHES TO NATURAL AND SOCIAL DYNAMICS
University of Osnabrück, Germany
20 - 22 March 2000

Topics covered by the conference are:
- General Aspects of Systems Science
- Ecological and Environmental Systems
- Technology and Risk Assessment
- Social and Economic Systems
- Biological Systems
- Psychological and Cognitive Systems

Keynotes to be presented by:
- Peter Allen (Cranfield, UK)
- Werner Ebeling (Berlin, DE)
- Hermann Haken (Stuttgart, DE)
- Thomas G. Hallam (Knoxville TN, USA)
- Michael Jischa (Clausthal, DE)
- Sven E. Joergensen (Copenhagen, DK)
- Rene Lefever (Brussels, BE)
- Donald Mackay (Peterborough, CA)
- Klaus Mainzer (Augsburg, DE)
- Hans Meinhardt (Tübingen, DE)
- Matthias Ruth (Boston MA, USA)

The invited lectures will be supplemented by contributed talks and posters which will give you the opportunity to present the latest scientific results in the field and to discuss them directly with your colleagues.

A WORLD CONGRESS OF THE SYSTEMS SCIENCES
Toronto, Canada,
July 17,18.19, 2000

To help celebrate the new millennium, the International Society for the Systems Sciences (ISSS) and some 20 "co-host" organisations in the systems field will jointly present a three-day World Congress of the Systems Sciences in Toronto, Canada, during the summer of the year. 2000. The purpose of the Congress will be to provide a scientific forum for addressing the many challenges that humankind will face in the next century. The theme will be: "Understanding Complexity: The Systems Sciences in the New Millennium." Former ISSS Presidents Stafford Beer and Anatol Rapoport will serve as honorary co-chairpersons.

The program will include a number of full-length keynote addresses by some of the world's most distinguished scientists, as well as plenary presentations by leaders of each of the co-host organisations. There will also be a set of showcase panels with presentations by representatives from each co-host organisation, along with more informal evening workshop/discussion sessions to allow for more personal interaction and dialogue.

VIRTUAL AND INTERACTIVE MUSEUMS: VISIONS, CONCEPTS AND INITIATIVES
April 27, 1999
at the EMCSR 2000 in Vienna

One of the Symposia within the 20th EMCSR will be devoted to a new form of historical display: virtual museum. Special attention is given to possibilities of interactively adding additional information to the underlying database. All relevant questions should be discussed in this symposium.

The symposium is managed by the newly formed Austrian Society for Computer History which currently creates a Virtual Museum of the History of Information Technology with the special emphasis on Austrian contributions.

NEWS FROM THE BOOK MARKET

DEATH MARCH –
THE COMPLETE SOFTWARE DEVELOPER'S GUIDE TO SURVIVING 'MISSION IMPOSSIBLE' PROJECTS
Yourdon,E.

The author describes from his own experience why and how many software projects fail or can only be rescued by death march like efforts.
Prentice Hall, New Jersey, 1997,
218 pp., ISBN 0-13-748310-4

JOURNALS

JOURNAL OF APPLIED SYSTEMS STUDIES (JASS)
METHODOLOGIES AND APPLICATIONS FOR SYSTEMS APPROACHES

AIMS AND SCOPE
The mission of the "Journal of Applied Systems Studies" is on the development of methodologies based on the laws and rules of various sciences. New designs and functional methodologies are composed for applications in business, operational and social, as well as biological phenomena. The objectives of the "Journal of Applied Systems Studies" are to widespread the science of systems and present the research and application results of its domain. As the science rapidly changes and grows, resources and time become more precious, "Journal of Applied Systems Studies" provides the very best information and analysis to keep up to date with the latest developments and approaches to other scientific domains, through the application of systems approaches upon them.

Editor-in-Chief : Nikitas A. Assimakopoulos,

Department of Informatics, University of Piraeus, 80, Karaoli & Dimitriou Str., GR-185 34 Piraeus, Greece., Email : assinik@unipi.gr
Submissions of papers: http://www.unipi.gr/jass/
Publisher: "Cambridge International Science Publishing , Cambridge, England.

Topics of interest to JASS include :
· Applications of cybernetics
· Applications of soft systems methodology
· Applied sociocybernetics
· Systemic models
· Critical systems thinking
· Human-centered systems
· Knowledge based systems
· Law systems
· Multimedia systems
· Problem structuring approaches
· Project management
· Religious systems
· Semiotic approaches
· Systemic metaphors
· Systemic reengineering
· Systems thinking
· Total systems intervention
· Virtual communities

NEWS FROM CONNECTED

The new@news.connected.org list has been specially created to people informed of new articles on Connected Magazine: http://www.connected.org

- What exactly are best practices? Can they be harnessed by a database and used for benchmarking as the AESOPIAN project suggests? And if so, under what conditions? http://www.connected.org/learn/aesopian.html

- The "Dialogue Handbook" is a ten point action plan and practical handbook for facilitating groups of citizens using the Internet in projects aimed at fuller participation in society. The Handbook is being developed by the DIALOGUE project http://www.connected.org/methods/intro.html

- People and places: a meeting with people and places through pictures and words. http://www.connected.org/places/places.html

PROJECT REPORTS

AUSTRIAN VIRTUAL MUSEUM OF COMPUTER HISTORY

The newly founded Austrian Society for Computer History is trying to recall the history of Information Technology, especially with respect to Austrian contributions in a 'virtual museum'. The museum presents pictures and curricula vitae of important scientists in that field. Additionally it is planned to allow 'visitors' to add their view to the Museum in an interactive fashion. The Museum will also make accessible for the public the then famous library of the IBM Laboratory Vienna. In the near future it will also contain an image of the 'History Wall of Data Processing', a three-dimensional display of the development of data processing from its initial vague steps (weaving machines etc) to the late 70's. The history wall is a brain child of the Austrian Computer pioneer Heinz Zemanek.
Contacts: email: oegig@oegig.at, home-page: http://www.oegig.at

REPORT ON "INTELLIGENT INFORMATION SYSTEMS RESEARCH IN AUSTRIA"

A recent study by the Austrian Research Center for Artificial Intelligence shows current research in that area in Austria. Some 29% of the projects can be classified as basic research, further 48% a applied research and some 23% as development. 31 university and research institutes and 6 companies do research. Some of the results are shown in the diagrams below.

Trappl R., Matiasek,J., Helscher, G.: Intelligente Informationssysteme: Forschung und Entwicklung in Österreich.
Austrian Research Institute for Artificial Intelligence, Rep. No. TR-97-29 (in German)

News from the IFSR

News from the IFSR

Please note the dates of the following important IFSR -events:
- EMCSR 2000: April 24-28, 2000
- Board Meeting of the IFSR:
  - Wednesday, April 26 or
  - Thursday April 27, 2000
- Strategy Meeting: Saturday, April 29, 2000
- Fuschl Conversation: Sunday, April 30 to Friday, May 5, 2000

JOURNAL OF SYSTEMS RESEARCH AND BEHAVIOURAL SCIENCE

FROM OUR MEMBER SOCIETIES

FUSCHL CONVERSATION GOES EAST!

We were very pleased to see a report on the Fuschl 1998 conversation to appear in a Japanese journal:

Brown, S. and Chroust, G. and Dyer G. and Horiuchi, Y. and Metcalf, G. and Rhee, M. and Rowland, G. and Tagliaferri, C.: Future Life - Learning: A Provisional Model for the Creation of Value, Review of Administration and Informatics, vol. 11 (1998), no 1., pp. 59-68

INTERNATIONAL FEDERATION FOR SYSTEMS RESEARCH
INTERNATIONAL SERIES ON SYSTEMS SCIENCE AND ENGINEERING

Series Editor: George J. Klir,
Editorial Board: Gerrit Broekstra, John L. Casti, Brian Gaines, Ivan M. Havel, Manfred Peschel, and Franz Pichler
Order info:

tel: 800-221-9369
fax 212-647-1898
email: info@plenum.com
web-site: http://www.plenum.com

CALENDAR OF EVENTS

Title	Date and Place	Further Information
Abbreviations: CfP, CfA: Call f.Papers/Abstract, FP: Final Paper due, <No. nn>: more details in issue.nn		
ICCHH 2000 – International Conference on Computers helping People with Special Needs	Karlsruhe, – Germany July 17-21, 1999	Dr. Klaus Miesenberger, http://szswww.ira.uka.de/icchp2000.html , Tel: +43 732 2468-9232, Fax: +43 732 2468-9322, email: klaus@mvblind.uni-linz.ac.at
CASYS' 99 Third Int. Conference on Computing Anticipatory Systems	Liege, Belgium August 9-14, 1999	CHAOS, Centre for Hyperincursion and Anticipation in Ordered Systems http://www.ulg.ac.be/mathgen/CHAOS/CASYS.html
11th Internat. Congress of Cybernetics and Systems <18/1>	Uxbridge, Middlesex, UK. August 23-27, 1999 CfA: May 15, 1999	R. Valle, 2, rue de Vouillé, 75015 Paris, France, Tel & Fax: +33 1 45 33 62 46
7th Interdisciplinary Information Management Talks (IDIMT-99) <18/1, 18/2>	Zadov, Czech Republic Sept 1-3, 1999	Christian Hofer Kepler Univ. Linz, 4040 Linz. Austria, tel+43 732 2468-873, ,

Österreich-Tag: Alltag und Berufsleben behinderter Menschen (in German)	Graz, A Sept. 7-9, 1999	Mag. Trude Breit, Alser straße 20/16, 1090 Wien; http://www.bco.co.at/cetag99 , Tel.:43 1 403 28 20-12, Fax: +43 1 403 28 20.10. email: office@bco.co.at
EUROMICRO 99 Workshop On Software Process And Product Improvement	Milano, Italy Sept 8-10, 1999	G. Chroust, Kepler Univ. Linz, 4040 Linz. Austria, tel+43 732 2468-866, GC@sea.uni-linz.ac.at, http://www.sea.uni-linz.ac.at/EU99SPI http://europub.ict.tuwien.ac.at/index.htm
European Software Day at the EUROMICRO-99 Conference	Milano, Italy Sept 10, 1999 CfP: June 11, 1999	Gerhard Chroust, Kepler Univ. Linz, 4040 Linz. Austria, tel+43 732 2468-866, GC@sea.uni-linz.ac.at, http://www.sea.uni-linz.ac.at/EU99SWD
CES-4: Fourth Systems Science European Congress <17/3,4>	Valencia – Ibiza, Spain Sept. 20-24, 1999	Sociedad Española de Sistemas Generales Escuela de Investigacion Operativa, Av. Blasco Ibañez, 13, 46100 Valencia. Spain tel: 34-96-3864-269, fax: -268, Lorenzo.Ferrer@uv.es http://www.uv.es/-pla/SESGE/
International Conference On Artificial Intelligence (ICAI'99) <18/1>	Durban, South Africa 24-26 September 1999	Vladimir Bajic, Technikon Natal, Mansfield Road, Gate 1, S8 Block, 3rd floor, Room 314 Durban 4001, South Africa fax:+27-31 204 2560 or +27-31-204 2063 bajic.v@umfolozi.ntech.ac.za
EUROCAST'99 7th International Workshop on Computed Aided Systems Theory and Technology	Vienna, Austria Sept 29-Oct. 2, 1999	Peter Kopacek, EUROCAST'99 Vienna Univ. of Technology, Inst. for Handling Devices and Robotics, Floragasse 7A, A-1040 Vienna, Austria Tel:: +43-1-504 1835, Fax:+43-1-504 1835-9 e-mailL ecast99@ihrt1.ihrt.tuwien.ac.at www: hppt://www.ihrt.tuwien.ac.at/ECAST99/
Int. Conference on Computer modelling simulation and communication (CMSC'99) <18/1>	Jaipur , India 1-3 December 1999	Prof. Dhyani, Computer dept. BIT Extension Centre, 27-MI Area Jaiour 302 017, India Fax: *91-141 525 602, , bisrmiaj@jpl.vsnl.net.in
Systems Science 2000 - Integrative Approaches To Natural And Social Dynamics <18/2>	University of Osnabrück, Germany 20 - 22 March 2000 CfA: Sep 1, 1999	H. Malchow ,University of Osnabrückl Institute of Environmental Systems Research D-49069 Osnabrück, Germany Tel/Fax +49-541-969-2575/2599 E-Mail sys2000@usf.uni-osnabrueck.de WWW http://www.usf.uos.de/~sys2000
EMBEC'99 – European Medical & Biological Engineering Conference	Vienna, Austria Nov. 4-8, 1999	travel@mondial.via.at; http://univie.ac.at/EMBEC99/
15th European Meeting on Cybernetics and Systems Research, EMCSR'2000	Vienna, Austria 24-28 April 2000 CfP: Oct. 20, 1999	Austrian Soc. for Cybernetic Studies, -Schotteng. 3, A-1010 Vienna, Austria, tel: +43-1-53532810, fax +43-1-5320652, email: sec@ai.univie.ac.at http://www.ai.univie.ac.at/emcsr/
Virtual and Interactive Museums: Visions, Concepts and INitiatives <18/2>	Vienna, Austria April 27, 1999 CfP: Oct. 20. 1999	G. Silvestri, Österr. Gesellschaft für Informatikgeschichte, Vienna 2, Franzensbrückenstrasse 26/3} Tel: +43/1/218 60 58, fax +43/1/218 60 58-13}, email: oegig@oegig.at, http://www.oegig.at.
10th Fuschl Conversation <18/1>	Fuschl , Austria May 1-5, 2000 Participation by invitation only!	Bela Banathy, International Systems Institute, 25781 Morse Drive, Carmel, CA 93923, USA tel/fax +1 (408) 625-3178. BHBANATHY@AOL.com or Gerhard Chroust, Kepler Univ. Linz, 4040 Linz. Austria, tel+43 732 2468-866 GC@sea.uni-linz.ac.at
World Congress Of The Systems Sciences	Toronto, Canada, July 17-19, 2000	Peter A. Corning , Institute for the Study of Complex Systems, 119 Bryant Street, Suite. 212, Palo Alto, CA 94301 USA. tel: (650) 325-5717 FAX: (650) 325-3775, ISCS@aol.com