



# ***IFSR Newsletter***

## ***Official Newsletter of the International Federation for Systems Research***

*Editor-in-Chief: Gerhard Chroust*

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*Gary S. Metcalf, Gerhard Chroust, Stefan Blachfellner*

*(photo: K. Rosencrans 2017)*



*Gerhard Chroust, Nam Nguyen*

*(photo: K. Rosencrans 2017)*

*Dear Readers!*

*During the first half of 2017 we carried on with the dynamic issues of 2016:*

- We published the proceedings of the 2016 Conversation*
- After the Conversation is before the Conversations: preparations for the Conversation are under way*
- The IFSR Book Series – our flagship has a new Editor-in-chief and very ambitious plans*
- We honored three of our past Executive Committee members*
- We proudly present two books published by members of our Executive Committee*

*As you can see, your IFSR is active and reaching out for new activities. With our best wishes*

*I remain yours truly*

*Gerhard Chroust*



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## **Inhaltsverzeichnis**

<b>MARY C. EDSON: PRESIDENT'S MESSAGE .....</b>	<b>1</b>
<b>HONORING IFSR EC MEMBERS .....</b>	<b>2</b>
<b>PROCEEDINGS OF THE 2016 IFSR CONVERSATION PUBLISHED: .....</b>	<b>4</b>
<b>TWO NEW BOOKS ON SYSTEMS THEORY.....</b>	<b>5</b>
GARY S. METCALF (ED.) : .....	5
SOCIAL SYSTEMS AND DESIGN .....	5
MARY C. EDSON, MARY C., PAMELA BUCKLE HENNING, SHANKAR SANKARAN (EDS.).....	6
A GUIDE TO SYSTEMS RESEARCH.....	6
<b>THE IFSR CONVERSATION 2018 .....</b>	<b>7</b>
<b>MARTY JACOB .....</b>	<b>7</b>
<b>THE IFSR BOOK SERIES GEORGE MOBUS.....</b>	<b>9</b>
<b>INTERNATIONAL SYSTEMS DYNAMICS CONFERENCE AND SUMMER SCHOOL 2017.....</b>	<b>10</b>
<b>RECEIVE INFORMATION FROM THE IFSR ! .....</b>	<b>12</b>



## Mary C. Edson: President's Message

Dear IFSR Members, Colleagues, and Friends,

A common opening for analysis of global issues in our modern era is the extent of complexity bounded by the limits of human capacity to address large scale problems. Indeed, much of this year has been spent by analysts from many fields reflecting about the outcomes recent events (e.g. the next phase for Brexit and the EU, the Rohingya humanitarian crisis, nuclear threats by North Korea on the nations in Asia Pacific, the 2016 US Presidential Election, the impact of climate change related to cyclonic storms ravaging countries worldwide, etc.). In each of these examples, human decision making for action or inaction is a critical factor in the outcome. In addition, much of the analysis, done by experts and pundits alike, is reflective of a line of thought which enquires: "How can we know what is in other peoples' minds?" This month, I propose a thought experiment for our members' consideration. Imagine a group of decision makers in a conference room, each of whom is given a manila envelope with an article (a physical object or a piece of paper with a code or concept on it) called a "key," which is a factor in the decision that they will be making. Each decision maker can only see the contents of their own envelope. Decision makers cannot see others' contents and there may be different articles in each of the envelopes. Each decision maker is asked to describe their *key* and how it influences the decision before the group. What do you think the meaning of a *key* is by the end

of the session? On another level, how does the perception of the *key* impact decision making of wicked problems on a larger scale? And finally, here is a question for the systems community, "How can systems science enhance understanding of the *key* and the multiple perspectives in which it can be interpreted?" HINT: This is a variation on a thought experiment by Wittgenstein.

Moving onto pragmatic matters, this month's Newsletter brings you up-to-date on the latest activities of the IFSR at the 61<sup>st</sup> Meeting of the International Society for the Systems Sciences (ISSS) and the International Systems Dynamics Conference (ISDC), as well as developments concerning the 2018 IFSR Conversation, the IFSR Book Series, and other events. Be sure to look for these articles on the IFSR webpage at <http://www.ifsr.org> and share your thoughts with us.

In the upcoming December Newsletter, we will announce the team topics for the 2018 IFSR Conversation, so be sure to be on the lookout for our next issue. Until then, enjoy the philosophical dilemma of consciousness and qualia.

Truly,

*Mary*

(President)



## Honoring IFSR EC members

During the ISSS Conference 2017 (Sept 9-14, 2017, Vienna) Gerhard Chroust, the Secretary General of the IFSR, had the honor of presenting memorial plaques to 3 members of the past Executive Committee for their leadership and contributions

**Gary S. Metcalf:** Vice President 2000 – 2010 and President 2010 – 2016

Gary retired from the position of President, but will further serve the IFSR in the function of a Vice President. During his Presidency we could observe the growth of the number of IFSR members and a growing presence of IFSR both in the Internet and via special mailing. Gary has served by far the longest time as president/vice president.

**Stefan Blachfellner:** Vice President 2012 – 2016

Stefan was instrumental in migrating the IFSR homepage to a newer, more modern platform. On the ISSS Congress 2013 he was able to increase the publicity and visibility of the IFSR

**Nam Nguyen:** Vice President 2014 – 2016

Nam has established a strong connection to Australia and negotiated the membership of Malik to the IFSR

*In the name of all its member societies, the IFSR wants to thank these persons for their effort, energy and devotion. The IFSR cannot thrive without personalities possessing these qualities!*



Gary S. Metcalf, Gerhard Chroust, Stefan Blachfellner  
(photo: K. Rosencrans 2017)



Gerhard Chroust, Nam Nguyen  
(photo: K. Rosencrans 2017)

*On this occasion we would also like to thank the previous officers of the IFSR*

Year	President	Vice-President(s)	Secretary/Treasurer
1980	George J. Klir	Robert Trappl	Gerard de Zeeuw
1984	Robert Trappl	Bela H. Banathy	Gerard de Zeeuw
1988	Gerrit Broekstra	Franz Pichler	Bela Banathy
1992	Gerard de Zeeuw	J.D.R. De Raadt	Gerhard Chroust
1994	Bela Banathy	Michael C. Jackson	Gerhard Chroust
1998	Michael C. Jackson	Yong Pil Rhee	Gerhard Chroust
2000	Yong Pil Rhee	Michael C. Jackson	Gerhard Chroust
2002	Jifa Gu	Matjaz Mulej, Gary S. Metcalf	Gerhard Chroust
2006	Matjaz Mulej	Jifa Gu, Gary S. Metcalf	Gerhard Chroust
2008	Matjaz Mulej	Yoshiteru Nakamori, Gary S. Metcalf	Gerhard Chroust
2010	Gary S. Metcalf	Kyoichi Jim Kijima, Amanda Gregory, Leonie Solomons	Gerhard Chroust
2012	Gary S. Metcalf	Yoshihide Horiuchi, Stefan Blachfellner	Gerhard Chroust
2014	Gary S. Metcalf	Stefan Blachfellner, Mary Edson, Nam Nguyen	Gerhard Chroust
2016	Mary Edson	Gary S. Metcalf, Jennifer Wilby, Ray Ison	Gerhard Chroust



**1 IFSR Board Meeting April 2016, Linz:**

Mary C. Edson, Nam Nguyen , Gary S. Metcalf, Gerhard Chroust, Stefan Blachfellner



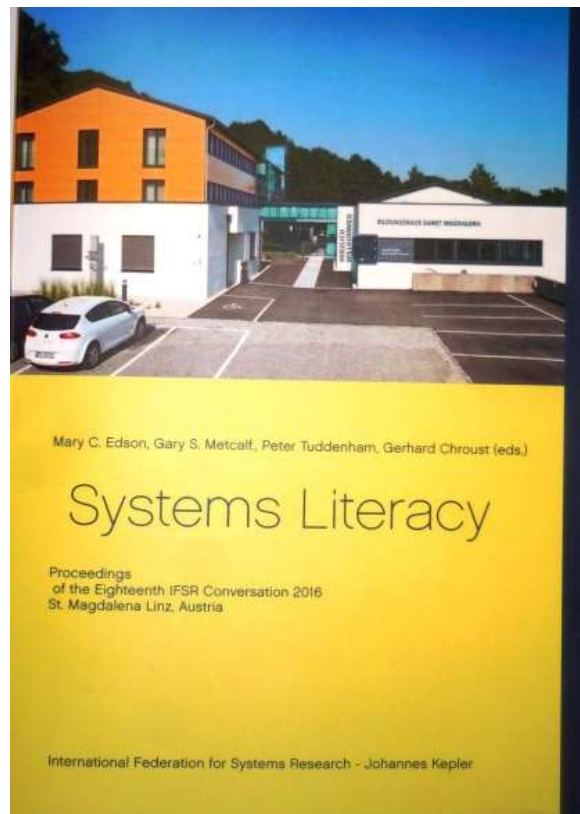


## Proceedings of the 2016 IFSR Conversation published:

We are proud to present the proceedings of the 2016 Conversation in Linz, thanks to the editors: Mary Edson, Gary Metcalf, Peter Tuddenham and Gerhard Chroust. On 100 pages the 3 teams of the Conversation report their findings. Additionally you find a discussion concerning Systems Literacy by Peter Tuddenham and personal reflections on the Conversation by George Mobus.

For the proceedings we have chosen a new and different publication concept: We published the proceedings via a 'Book-on-Demand' publisher. Up to now we are very satisfied with this arrangement. Both a hardcopy and an e-books version are produced by the publisher and the books are available internationally in major electronic books stores

EDSON, M.C., G. METCALF, P. TUDDENHAM, G. CHROUST, (eds.) *Systems Literacy - Proceedings of the Eighteenth IFSR Conversation 2016*, SEA-SR 47 Books on Demand, Norderstedt, Germany, Feb. 2017, pp. vi +98  
Books can be ordered at:  
BoD Buchshop <https://www.bod.de/buchshop/>



and in international bookshops, e.g. Amazon.  
Price: € 14, Kindle-e-book € 5,49 €,



## Two new Books on Systems Theory

We are proud to announce that two books appeared the editors belong to the ISFS Executive Committee



**Gary S. Metcalf (ed.) :**

### **Social Systems and Design**



Translational Systems Sciences

### **Social Systems and Design**

Editor: Metcalf, Gary S

Springer: 2014 (softcover 2016)

Language: English

252 Seiten

hardcover: ISBN 978-4-431-54477-7 , 121 €

Softcover: **ISBN:** 978-4-431-56164-4, 121 €

e-book: ISBN 978-4-431-54478-4, 92 €

The book summarizes and compares the ideas of a number of systems theorists who incorporated design principles into their work through the latter half of the 20th century

We live in the worlds that we help to create every day. Every activity either supports an existing system or effects some change,

however small. But is it possible to consciously create the worlds in which we want to live?

This volume brings together systems theorists and practitioners who have worked on that question for decades. It explores connections between design and systems ideas to explain why some efforts have been more successful than others, and what is needed if we are to

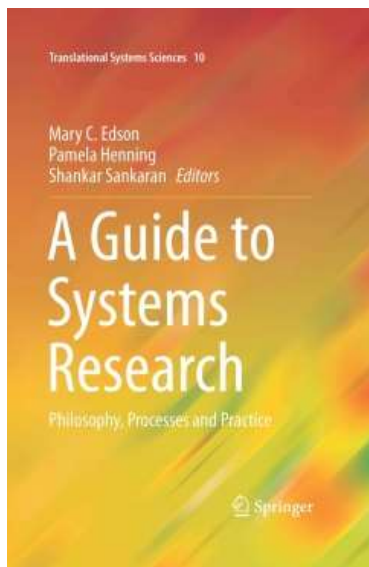
move forward. It offers reflections on early and large-scale attempts at impacting societal systems, as well as proposals for taking those ideas into the future. Examples date back to the Club of Rome in the 1960s and look forward to the creation of ecologically sustainable systems in the future. They address the need for

collaboration and inclusion in settings from communities to corporations. And while theories are presented as support for the examples, they are explained in practical ways meant to be accessible both to students and to general readers.



**Mary C. Edson, Mary C., Pamela Buckle Henning,  
Shankar Sankaran (Eds.)**

**A Guide to Systems Research**



Translational Systems Series 10

## **A Guide to Systems Research**

### **Philosophy, Processes and Practice**

**Editors:**

**Edson, Mary C., Buckle Henning, Pamela, Sankaran, Shankar**  
Springer 2017

Language: English

246 pages

hardcover: ISBN 978-981-10-0263-2, 121 €

e-book: ISBN 978-4-431-54478-4, 96 €

The book provides a holistic approach to addressing complex problems that are difficult to investigate using conventional research methods

This guide is designed for systems researchers – emerging and seasoned – searching for holistic approaches of inquiry into complexity, which the Systems Sciences provide. The authors share insight into the foundations of research that are not only systematic in terms of rigor, but systemic in perspective, analysis, design, development, implementation, reporting, and evaluation. This guide also explores researcher competencies necessary to conduct sound systems research. Researchers using this guide will gain understanding of what distinguishes systems research from other types of research and why it is important in research today.





## The IFSR Conversation 2018

### Marty Jacob



Seminarhotel St. Magdalena, Linz

In April 2018 the IFSR will be hosting the nineteenth IFSR Conversation in the Seminarhotel St. Magdalena in Linz, Austria, Sunday 8 April to Friday, 13 April. Preparations are underway as we embark on forming teams.

The roots of the IFSR Conversation began in the social systems design work of Bela H. Banathy. The underlying principles of social systems design are:

- Individuals, groups, and communities have a basic right to participate in decision-making that will impact them.
- They can claim this right by developing the capacity to participate authentically and directly in the design process.
- People who live in the system are the experts; therefore it is unethical for someone else to design the new system for them.
- The role of facilitators of the design process is to enable participants to see the possibilities and to empower them to act on them.
- Participants in the design process represent all stakeholder groups and they become user designers.
- The user designers must remain constantly aware of the impact of the design on future generations.
- The participatory and collective design process enables participants to improve the quality of life, add value to the system, and contribute to the greater good. (Dyer, 2004)

The IFSR Conversations (formerly known as the Fuschl Conversations) were established by the IFSR in 1980, primarily under the guidance of Bela H. Banathy, as an alternative to traditional conferences. A number of systems professionals found that they were disillusioned

with a format in which the majority of the time was spent on papers being read or presented to passive listeners, with minimal time for discussion and interaction about the ideas. The IFSR Conversations took on quite a different nature. As described by Bela, they were to be:

- a collectively guided disciplined inquiry,
- an exploration of issues of social/societal significance,
- engaged by scholarly practitioners in self-organized teams,
- who select a theme for their conversation,
- which is initiated in the course of a preparation phase that leads to an intensive learning phase.

The conversation methodology, known as the Banathy Conversation Methodology, has its theoretical underpinnings in social constructivism, embodied cognitive science, information theory, intercultural communication, soft systems thinking, guided evolution, and social systems design (Dyer, Jones, Rowland, & Zweifel, 2015). It enables participants to

- identify and challenge assumptions, allowing for disagreement,
- delay problem solving through an emergent process of problem definition,
- apply the methodology to both theoretical and practical issues,
- tap into the creative capacity of all team members, and
- reframe issues. (Dyer et al., 2015)

The Conversation provides a dialogic space in which inquiry and learning are encouraged with few constraints or expectations of outcomes. Conversations are not goal-oriented. The "goal" is learning and discerning development in the systems sciences. While specific strategies may emerge, the primary output is insight, understanding, and illumination of a path forward.

The intimate environment of the Conversation provides an atmosphere for reflective learning. Sankt Magdalena is just outside the city of Linz. Its bucolic environment draws participants into the adjoining woods for lunchtime strolls, which often lead to new insights into the day's

dialogue. The sense of nurturing ideas in a nourishing environment is palpable here.

In addition to being an intense inquiry into the systems sciences, Conversations prove to be profound human experiences - openly discussing topics, opinions, ideas, and reflection. As one participant (Charles Francois) said, "When you leave Fuschl (the Conversation), you are a different person." Through the Conversation, we sharpen our cognitive tool set by becoming comfortable with uncertainty because we learn to trust the emergent process of collaboration and collective learning through dialogue. Transformation was Bela's vision for the

Conversations and his spirit lives on as we plan for 2018.

Summary reports and proceedings from the Conversations are documented in the IFSR Newsletter and on IFSR's website at ifsr.org.

References:

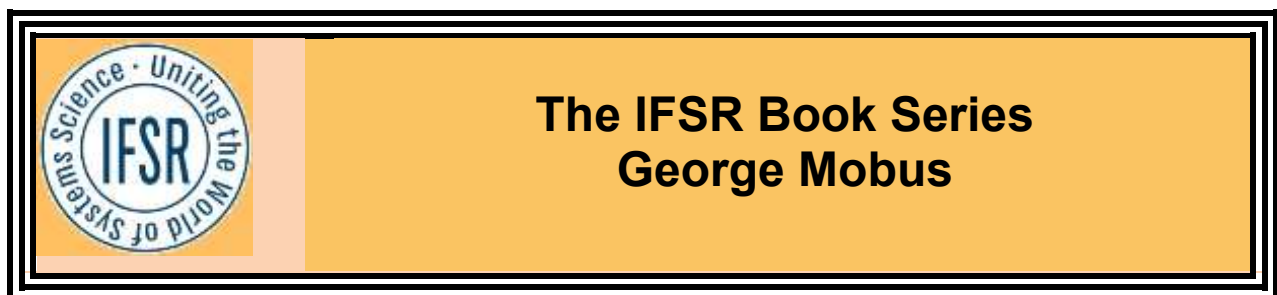
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- Dyer, G., Jones, J., Rowland, G., & Zweifel, S. (2015). The Banathy conversation methodology. *Constructivist Foundations*, 11(1), 42-64. Retrieved from <https://philpapers.org/archive/DYETBC-2.pdf>

The proceedings are also published in book form.

For further information about the Conversations, please send an email with your inquiry to Marty Jacobs at [mjacobs@saybrook.edu](mailto:mjacobs@saybrook.edu).

*Marty Jacobs*

*2018 IFSR Conference Project Manager*



## **IFSR-International Series on Systems Science and Engineering by Springer**

We have successfully re-launched our Springer-published Book Series in Mathematics/Computational Science & Engineering: "Systems Science and Engineering" (see Web site: <http://www.springer.com/series/6104> and <http://www.ifsr.org/index.php/publications/ifsr-international-series-on-systems-science-and-engineering/> ).

The Series is soliciting high quality monographs, edited collections, and textbooks that focus on research in areas of Systems Science and Engineering. We are particularly interested in book proposals that demonstrate the integration of subjects across disciplinary lines within the system sciences, for example, showing relations between cybernetics and hierarchy theory and other similar sub-fields of systems. The research topics can be either theoretical or applied (e.g. Action Research). Subjects that emphasize transdisciplinary work are highly encouraged.

The objective of the book series is to reach a broad and diverse audience.

If you are interested in authoring a book or editing a collection in the Series, please send an e-mail stating your research area and the nature of your interest in this series to Editor-in-Chief George obus [gmobus@uw.edu](mailto:gmobus@uw.edu).



## Editorial Board

(as of Sept 2017):

Editor-in-Chief: George E. Mobus, Ph.D.  
(Emeritus)  
University of Washington Tacoma  
1-253-692-5894  
gmobus@uw.edu

Gary Metcalf, Ph.D.  
Vice President, International Federation for  
Systems Research  
gmetcalf@InterConnectionsLLC.com

Javier Calvo-Amodio, Ph.D.  
Oregon State University  
Javier.Calvo@oregonstate.edu

Dr David Rousseau  
Centre for Systems Philosophy  
+44 (0) 7714 677 687  
david.rousseau@systemsphilosophy.org

Prof. Dr. Gerhard Chroust  
J. Kepler University Linz  
Gerhard.Chroust@jku.at

Gary Robert Smith  
Airbus Defence and Space  
gary.r.smith@airbus.com

Mary C. Edson, Ph.D.  
President, International Federation for Systems  
Research  
maredson.s3@gmail.com

Jennifer M. Wilby, Ph.D.  
ISSS, Past-President and VP Administration  
+44(0)07711042438  
wilbysystems@gmail.com



## International Systems Dynamics Conference and Summer School 2017

Mary C. Edson

From July 11<sup>th</sup> through July 20<sup>th</sup>, I was privileged to participate in the International Systems Dynamics Summer School followed by the conference hosted by the Systems Dynamics Society (SDS) held in Cambridge,

Massachusetts, USA . This year marks the 60<sup>th</sup> anniversary of the field of Systems Dynamics (SD), pioneered by Jay W. Forrester. This year, both programs were held in Cambridge, Massachusetts. The Summer School was four

days long, followed by the conference including workshops. First, I will share my perspectives of the Summer School that was conducted at the MIT Sloan School of Management. Second, I



will describe the conference, which was also a celebration of Forrester's life, as he passed in November 2016 at the age of 98. As I will describe later in this message, Forrester packed a lot into those years.

The Summer School was an intensive program delivered at two levels of instruction. John D. Sterman, who has been instrumental in the development of the field of Systems Dynamics (2000), opened the program with an overview and a retrospective of its history and development. We moved quickly into participation in "The Beer Game," which demonstrates major issues that the SD approach addresses, such as imperfect information, lack of communication, and time delays, in the context of production and distribution of a product. Rest assured that clear heads prevailed during the game, as we deferred product consumption and quality assurance testing until the opening reception later that evening. After the demonstration, participants assembled into two levels for the program – Introductory and Advanced. For the remaining three days, we worked through learning specifically designed to address the principles at these two levels.

Overall, I gained new insights into SD the Summer School, well beyond Causal Loop

Diagrams (CLDs) and Stocks and Flows. I did not have a great deal of experience with SD prior to the program beyond reading Sterman's (2000) classic book, so learning the basic principles, building models, running simulations, and validating them was particularly helpful in crystalizing the concepts. This was also my introduction to using SD software – Vensim. There are other software programs, such as Stella, which have their strengths (e.g. communicating with clients) and differing logic and assumptions. In addition, I particularly



enjoyed the cases we worked through in pairs and small teams. We were applying what we were learning quickly. Before we knew it, the four days evaporated and we shifted into conference mode.



The opening ceremony for the conference (ISDC) was a joyous celebration of Jay Wright Forrester's life spanning his numerous accomplishments in computing, engineering, management, and Systems Dynamics. Several stories were shared by his students and colleagues. Forrester was born in 1918 in Anselmo, Nebraska and grew up on a ranch. Beyond a passion for horses (see the




accompanying pictures below), Jay thrived on building practical solutions for problems encountered in ranching. Using old car parts, he designed a wind-driven, 12-volt electrical system for the ranch when electricity was just becoming available throughout the country. He quickly advanced into computer systems, pioneering real-time computing at MIT with the Whirlwind. You can see Forrester demonstrate

the Whirlwind in an interview with Edward R. Morrow during the *See It Now* program in 1951 (<https://www.youtube.com/watch?v=5ZQP4G3Qwb4>). You will quickly see how far computing has come in the last 65 years.

You can learn more about Forrester at the Systems Dynamics Society's website (<http://www.systemdynamics.org/jwf/>).



Jay Wright Forrester's Contributions and Achievements through the Decades



## Receive Information from the IFSR !

We have four avenues of making information accessible to our members:

- **the IFSR website** ([www.ifsr.org](http://www.ifsr.org)): It contains both volatile information in blog form and (more or less) archival information on its pages. (see picture below).
- **The IFSR Newsletter**. It appears twice a year and contains information concerning the last half year which is of mostly archival interests.



- The **IFRS News Flash** It appears irregularly, approx. twice a month. It contains short pieces of information considered important for being forwarded to the Systems Community. One has to subscribe to this service on IFSR's homepage. It has currently approximately 270 subscribers.
- Direct **e-mail to Member Associations**: Key information about the IFSR, but also other member's announcement go also directly to the representatives of our member associations.



International Federation for Systems Research

## ***IFSR News Flash***

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<http://www.ifsr.org>

***You can also subscribe to the IFSR News Flash which is published.***





### ***International Federation For Systems Research***

Secretary General: Prof. Dr. Gerhard Chroust  
c/o OSGK – Austrian Society for Cybernetic Studies  
Freyung 6/6, A-1010 Vienna, Austria  
Tel: +43 664 28 29 978, fax: +43 1 5336112-20  
E-mail: [gerhard.chroust@jku.at](mailto:gerhard.chroust@jku.at)  
<http://www.ifsr.org>

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