



DEMOSOPHIA

HISTORY OF THE SCIENCE

**A BRIEF HISTORY OF INTERACTIVE
MANAGEMENT AND STRUCTURED
DIALOGUE**



A Brief History of Interactive Management and Structured Dialogue

Humanity has made great progress in using science and technology to solve a wide range of complicated and technical challenges, but complex and social issues have proved more resistant. By the latter half of the 20th century a number of people were focusing their attention on this area and coining labels such as 'wicked problems' and 'messes'; more recently the term VUCA (volatile, uncertain, complex and ambiguous) has emerged. This is a brief history of an important body of work to address this class of human challenge, starting in the late 1960s and with a variety of names including Interactive Management, Structured Dialogic Design and Structured Democratic Dialogue.

In 1966 John Warfield, who majored in electrical engineering with a specialty in communications engineering, joined the Battelle Memorial Institute to study the workings of complex societal systems, such as planning to meet educational needs or determining how large cities function. Warfield was searching for a way to allow human beings, with our inherent cognitive limitations, to understand complexity and to collaborate effectively in groups. He subsequently moved to the University of Virginia, where through his work in 1973-4 he created the mathematics and algorithms to efficiently allow ideas to be compared to other ideas and then have their influence on one another visually mapped. This breakthrough methodology was named Interpretive Structural Modelling (ISM); it uses a software tool to augment human capability and avoid cognitive overload, enabling a diverse





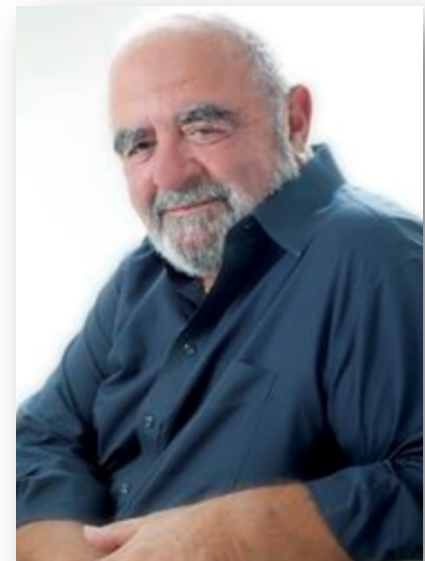
group to co-create an Influence Map representing the challenge or opportunity they face.

In parallel with this work, in the late 1960's, [Aurelio Peccei](#), an Italian industrialist and philanthropist, was traveling around the world meeting with world leaders and trying to raise their attention to what he saw as an impending global crisis. In 1969 Peccei published '[The Chasm Ahead](#)' and in the same year the planning theoretician [Hasan Ozbekhan](#) published '[Toward a General Theory of Planning](#)'. Together they



proposed a systems approach to deal with "the tidal wave of global problems", and initiated a new think tank, the [Club of Rome](#). Ozbekhan published the prospectus in 1970 with the title '[The Predicament of Mankind: A Quest for Structural Responses to Growing World-wide Complexities and Uncertainties](#)'. It lists "49 continuous critical problems" spanning poverty, warfare, education, environment and prejudices. At that time, the systems science required to tackle these problems was in its infancy.

In 1969 Ozbekhan recruited [Alexander \(Aleco\) Christakis](#) to the Executive Committee of the Club of Rome. Christakis had degrees in theoretical nuclear physics from Yale and Princeton, but had moved back to Greece and into the world of architecture and planning, where a visionary employer ([Constantinos Doxiadis](#)) had challenged him to develop "the science of human settlements". Through a series of seminars in Athens his thinking was influenced by prominent thinkers such as Margaret Mead, and it was at one of these seminars he met Ozbekhan. Ozbekhan and





Doxiadis subsequently formed the Doxiadis-Systems Development Corporation, based in Washington DC, and Christakis moved back to the US as its Director of Research. Ozbekhan eventually joined the Social Systems Sciences program at the University of Pennsylvania with other leaders in the development of systems thinking (for example Russell Ackoff, C. West Churchman).

Christakis and Warfield met at a United Nations conference focused on population growth and determined that they were working on similar problems. After visiting Warfield at the [Academy for Contemporary Problems](#), a joint venture with Ohio State University and Battelle Memorial Institute, in 1972 Christakis also joined the Academy where Warfield was already a Fellow. They worked together there and at Battelle, until 1981 when they moved to the University of Virginia (UVA).

Together at UVA they developed the [Center for Interactive Management](#), and in 1984 transferred it to George Mason University. Working together they developed the methodology of [Interactive Management](#); this is a framework incorporating several meticulously selected tools, including Nominal Group Technique, DELPHI, and Interpretive Structural Modelling. The Center trained a large number of practitioners and spawned a global diaspora which continues to this day.



In *Understanding Complexity: Thought and Behavior*, Dr. Warfield defines Interactive Management as: “A system of management invented explicitly to apply to the management of complexity. It is intended to be applied intermittently in organizations to enable those organizations to cope with issues or situations whose scope is beyond that of the normal type of problem that organizations can readily solve.”

[Excerpt from John Warfield Website](#)

Applications of Interactive Management

Applications of Interactive Management grew in the 1980s and 90s, through academic routes and specialty consulting companies. Large corporations such as IBM and Ford in the US and Tata in India developed in-house capabilities. In 1993 Warfield and Roxana Cárdenas published [A Handbook of Interactive Management](#) listing 120 applications, spanning the globe and covering situations from ‘Developing a Design Culture in Higher Education’ to ‘Strategic Objectives for the São Paulo State Bank’. Other practitioners around the world applied the concepts and tools of Interactive Management and Interpretive Structural Modelling, often using proprietary names to differentiate their offer and developing their own frameworks and software tools. This has had the unfortunate effect of fragmenting the market, leaving the capability arguably much less well known than it deserves.

Christakis subsequently reoriented the methodology as [Structured Dialogic Design](#), emphasizing social aspects such as the emancipation of stakeholders and development of equitable power relations. Christakis set up CWA Ltd as a commercial channel and tackled a wide range of challenges around the world during the 1990’s and 2000’s. In 2002, together with Kenneth Bausch, he set up the [Institute for 21st Century Agoras](#), ‘a globally networked non-profit organization dedicated to the democratic transformation of society and culture’. In 2006 they

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published '[How People Harness Their Collective Wisdom and Power to Construct the Future](#)', subtitled 'to Construct the Future in Co-Laboratories of Democracy', describing the architecture and scientific underpinnings of Structured Dialogic Design. Christakis continues his active involvement in evolving the science and in the arena of practice to this day.

The last decade has seen a resurgence in interest and applications. In 2008 [Yiannis Laouris](#), a neurophysiologist and systems scientist, set up the [Future Worlds Center](#), "...aspiring to harness the power of emerging technologies and the science of structured democratic dialogue to accelerate positive social change". In 2010, Tom Flanagan, working with Christakis, published '[The Talking Point: Creating an Environment for Exploring Complex Meaning](#)', distilling several decades of wisdom learned from experience of applying the methodology. Kevin Dye, who worked with Christakis, continues to advance Interpretive Structural Modelling algorithms and conduct research. Jeff Diedrich created a web-based version of the ISM software and refines the methodology through his work with the Michigan Department of Education.



Andy Hegedus managing a Demosophia Colab

In 2009 Andy Hegedus discovered the methodology and contacted Christakis. He went on to set up Demosophia LLC, with Christakis as Technical Advisor, and supported by a network of experienced process and technology experts including Tom Flanagan, Jeff Diedrich, Kevin Dye and Yiannis Laouris. In 2017 Peter Miles, who has been applying [Bill Rodger's Synplex](#) brand of Interactive Management for many years in the UK, joined forces with Demosophia.

The story continues, and efforts are now being made to reconnect the divergent strands of practice across the globe. In a world increasingly characterized by wicked problems, the powerful capability of structured democratic dialogue is needed now more than ever.

Further recommended reading

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'An Epic Learning Journey – From the Club of Rome to Dialogic Design Science & Demosophia', Christakis, published in Social Systems and Design, ed. Metcalf, 2014

Repository for Dialogic Design Science