

#### BSLab-SYDIC International Workshop

Model-based Governance for Smart Organizational Future

Organized by:

Business Systems Laboratory in cooperation with System Dynamics Italian Chapter

Hosted by:

"Sapienza" University of Rome Dipartimento di Ingegneria Informatica, Automatica e Gestionale "Antonio Ruberti"

> Via Ariosto 25 00185 - Roma, Italy January - 23-24, 2017





#### WORKSHOP SCOPE

Today, the effective governance of any organization - be it a government, a firm, a state-owned entity, or a charity - needs to be based on resilience, transparency, accountability, evidence of effectiveness. This need is stimulated by the all-encompassing public scrutiny of organizations, a trend that is continuously growing due to the advances in IT. This process has been described in terms of the emergence of technologies and practices of calculation in the context of governance.

A common problem is that organizations frequently approach governance as a process of conforming strictly with rules and regulations instead of considering governance from a wider systemic perspective.

In this workshop we call for both practical and theoretical research proposals for a better modeling of organizational systems as well of examples of successful application of model-based governance to any kind of organizational system.

The workshop is an event in which researchers work intensively on a topic. Its mark is cooperation and the moderation of conversations towards a goal. The workshop aims to support participants to develop their research proposals to a further stage through discussion in roundtables and panels under the tutorage of the chairs.

#### WORKSHOP ORGANISATION BOARD

#### **Conference Program Chair**



Fabio Nonino, "Sapienza" University of Rome, Italy

#### **Scientific Directors**



Gandolfo Dominici
Scientific Director
Business Systems.Laboratory
University of Palermo,
Italy



StefanoArmenia
President
System Dynamics Italian Chapter,
Italy

#### Workshop Secretariat Manager



**Davide Di Fatta** University of Messina. Italy

#### WORKSHOP SCIENTIFIC BOARD

Gianpaolo Basile, Business Systems Laboratory (Italy)
Manlio Del Giudice, Link Campus University (Italy)
Gerhard Fink, WU-Wien (Austria)
Markus Schwaninger, University of St. Gallen (Switzerland)
Mauro Sciarelli, University "Federico II" of Naples (Italy)
Kim Warren, Strategy Dynamics Ltd (UK
Maurice Yolles, Liverpool John Mores University (UK)

#### **MONDAY, JANUARY 23, 2017**

- **❖** 13,30 -14,30 REGISTRATION OF PARTICIPANTS
- ➤ PLENARY SESSION: 14,30 16,00
- **14,30 15,00:**

#### Welcome address:

- o Gandolfo Dominici, Scientific Director Business Systems Laboratory;
- Stefano Armenia, President System Dynamics Italian Chapter;
- o Fabio Nonino, Workshop Program Chair.
- ► 15,00 16,00:

#### Keynote speeches:

- Governance through Political Bureaucracy: An Agency Approach by Maurice Yolles, Professor Emeritus of Management Systems at Liverpool John Moores University, UK.
- o Collective Affect Types arising in Social Systems: by Gerhard Fink, Professor emeritus of International Business, WU-Wien, Austria.
- > 16,00 16,30: COFFEE BREAK
- **▶** 16,30 18,30: DISCUSSION SESSIONS
- **▶** 18,30 19,00: SYDIC General Assembly
- ❖ 20,15: SOCIAL DINNER AT ROYAL ART CAFÉ (only for participants who registered for the dinner) Piazza del Colosseo, 1

#### **TUESDAY, JANUARY 24, 2017**

- > 09,00 11,00: DISCUSSION SESSIONS
- > 11,00-11,30: COFFEE BREAK
- **▶ PLENARY SESSION: 11,30 13,15**
- > 11,30 12,30: Keynote speeches:
  - xeynoie speeches:
    - Governance for Intelligent Organizations: A Cybernetic Contribution by Markus Schwaninger, Professor Emeritus of Management, University of St. Gallen, Switzerland.
    - Engineering the Enterprise by Kim Warren, Director: Strategy Dynamics Ltd, UK and Former President: The International System Dynamics Society.
- ➤ 12,30 13,15: MEET THE EDITORS ROUNDTABLE
- > 13,15 14,15: LUNCH
- **▶** 14,15 16,15: DISCUSSION SESSIONS
- > 16,15-16,45: COFFEE BREAK
- **▶** 16,45 17,45: DISCUSSION SESSIONS
- > 17,45- 18,30: FINAL ROUNDTABLE AND FAREWELL
- > 18,30-19,00: BSLab General Assembly

## DISCUSSIOM SESSIONS PROGRAM Monday, January 23, 2017

*> 16,30-18,30* 

#### **COMPLEX SYSTEMS**

Chairs: Maurice Yolles and Gerhard Fink Room 1- 16,30- 18,30 pm

The Role of Weak Ties in the Emergence and Evolution of Alliance Networks - Gabriella Levanti, Assistant Professor of Business Management, Arabella Mocciaro Li Destri, Full Professor of Business Management, University of Palermo, Italy and Giambattista Dagnino, Full Professor of Business Management, University of Catania (Italy)

NSS to Support Optimal Social Agreements - Thyago Celso Cavalcante Nepomuceno, Jadielson Alves De Moura, Ana Paula Cabral Seixas Costa, Universidade Federal de Pernambuco (Brasil).

Can we consider Stakeholder Networks CAS or MAS? An interpretative framework - *Mario Tani*, Assistant Professor of Business Management *and Mauro Sciarelli*, Full Professor of Business Management, "Federico II" University of Naples (Italy).

Community centrality and inter-community detection in spatial networks - Carlo Drago, Assistant Professor of Mathematical statistics, University "Niccolò Cusano" (Italy).

**State organization as complex system: explaining US election using mindset theory -** *Maurice Yolles*, Liverpool John Moores University (UK) and *Davide Di Fatta*, PhD candidate, University of Messina (Italy).

#### **Technological Systems**

Chair: Stefano Armenia Room 2- 16,30- 18,30 pm

'How Many Times Should my Simulation Run?' Power Analysis for Agent-Based Modeling - Raffaello Seri, Associate Professor of Econometrics, Insurbia University (Italy) and Davide Secchi, Associate Professor of Associate Professor of Organizational Cognition, University of Southern Denmark (Denmark).

**The Transformation Toward Service Innovation of IT Firms -** *Rich Lee,* National Sun Yat-Sen University (Taiwan)

Analyzing the diffusion of a multi-side ICT platform for urban logistics services: A System Dynamics approach - *Giulio Mangano*, Assistant Professor, *Giovanni Zenezini*, Ph.D. Candidate, *Anna Corinna Cagliano*, Assistant Professor, *Alberto De Marco*, Associate Professor, Department of Management and Production Engineering, Politecnico di Torino (Italy)

Examining the role of e-learning in promoting health awareness of young internet users (Case study: Girl students of Allameh Tabataba'i University) - *Ali Asghar Kia*, Allameh Tabataba'i University, Tehran (Iran),

Exploring the dynamical behavior of software systems quality attributes throughout its evolution: A case study from the maintenance process perspective - *Stefano Armenia*, "Sapienza" University of Rome (Italy), *Eduardo Ferreira Franco*, and *Kechi Hirama*, Escola Politécnica da Universidade de São Paulo (Brasil)

Smart Model-based Governance: from Big-Data to future Policy Making - Stefano Armenia, Massimo Mecella "Sapienza" University of Rome (Italy), Eduardo Ferreira Franco, Escola Politécnica da Universidade de São Paulo (Brasil), Riccardo Onori, Business Process Management & Improvement (Italy).

# DUSCUSSION SESSIONS PROGRAM TUESDAY, JANUARY 24, 2017 MORNING

*> 09,00-11,00* 

#### **System Dynamics Applications**

Chairs: Markus Schwaninger and Kim Warren Room 1- 09,00 - 11,00 am

Mechanisms of meme propagation in the mediasphere: a simple system dynamics model - *Ugo Bardi*, *Sara Falsini* and *Ilaria Perissi*, University of Florence (Italy).

Interorganizational Collaboration Dynamics – Edmundo Ortiz Romero, Margarita Castro González, Arkansas State University—Campus Querétaro (México), Ignacio J Martinez-Moyano, Global Security Sciences, Argonne National Laboratory and Senior Fellow, Computation Institute, University of Chicago (USA).

Managing Changing Organization Process; System Dynamics Modeling towards Learning Organization - Habib Sedehi, Senior ICT Consultant (Italy).

Governance of Smart Clusters; the role of Proximity in Model-Based Governance - *Nathalie Lachapelle* and *Diane-Gabrielle Tremblay*, Téluq, University of Québec (Canada).

Sardinian dairy sheep supply chain: opportunities from a big data platform described with a causal loop diagram - Alberto Stanislao Atzori, Assistant Professor of Animal Science, Luca Saba, PhD Student of Animal Science and Giuseppe Pulina, Full Professor of Animal Science, Department of Agriculture, University of Sassari (Italy).

### Systemic Organization and Management 1 of 2

Chairs: Gerhard Fink and Maurice Yolles Room 2- 09,00 -11,00 am

The challenges and opportunities of using the Industry 4.0 technologies for the integration of knowledge management processes through building collective networks of strategic intelligence - *Vasja Roblek*, Assistant of Research Methodologies and Health Management, Higher Institution Fizioterapevtika, *Maja Meško*, Associate Professor of Management, Faculty of Management, University of Primorska, *Vlado Dimovski*, Full Professor of Management and Organization and *Judita Peterlin*, Assistant Professor of Management and Organization, Faculty of Economics University of Ljubljana (Slovenia).

Service-script as an employee governance tool: Evidence from dual jobholders - Gianfranco Walsh, Professor of Marketing, Faculty of Economics, University of Jena and Mario Schaarschmidt, Assistant Professor of Technology and Innovation Management, Institute for Management, University of Koblenz-Landau (Germany).

**Dynamic capability for multi-stakeholder management -** *Piero Mella*, Full Professor of Business Administration, University of Pavia and *Patrizia Gazzola*, Associate Professor of Management, University of Insubria (Italy).

**The spin-offs organization:** A systemic view- *Walter Vesperi*, Phd student University of Messina, *Rocco Reina*, Associate Professor of Organization Studies, University of Catanzaro, *Primiano Di Nauta*, Associate Professor of Organization studies, University of Foggia (Italy).

Adaptive Manufacturing: Challenges to the Industrial and Scientific Community - *Luca Pazzi*, Assistant Professor *Marcello Pellicciari*, Associate Professor, Department of Engineering "Enzo Ferrari", University of Modena and Reggio Emilia (Italy)

**Developments in Model-Based Trade Policy Analysis -** *Nino Papachashvili, Associate Professor*, Faculty of Economics and Business, Iv. Javakhishvili Tbilisi State University (Georgia).

# DISCUSSION SESSIONS PROGRAM TUESDAY, JANUARY 24, 2017 AFTERNOON

> 14,15 - 17,45

### Systemic Organization and Management 2 of 2

Chairs: Markus Schwaninger and Kim Warren Room 1- 14,15 -16,15 pm

Walking the talk: Catalyzing organizational values alignment - Fabian Szulanski, Professor of Systems Thinking, System Dynamics, and Innovation, Department of Innovation in Education, Instituto Tecnológico de Buenos Aires (Argentina) and *Douglas Breitbart*, Independent scholar (USA).

**Intelligent managers require Systems Thinking -** *Piero Mella*, Full Professor of Business Administration, University of Pavia and *Patrizia Gazzola*, Associate Professor of Management, University of Insubria (Italy)

Soft Methodology for Systemic and Viable Capitalization of an Organization driven by its Intangible Process Assets - Maria-Isabel Sanchez-Segura, Associate Professor, German-Lenin Dugarte-Peña, Researcher and Fuensanta Medina-Dominguez, Associate Professor, Department of Computer Science and Engineering, Carlos III University of Madrid (Spain).

Organization and function. Next key factors in organization theory and practice - *Steffen Roth*, Associate Professor of Strategic Management, La Rochelle Business School (France).

The Growth in Bureaucratic Governance and "Meaningless Jobs": How does Systems Theory Respond?- *Michael Charlton*, Senior Lecturer in Business Systems, Sheffield Hallam University (UK).

**Soft Skills and Job Opportunities of Migrants: Systemic Relationships in the Labor Market** - *Roland Bardy*, Gulf Coast University, Fort Myers (USA).

#### **Sustainable and Social Responsible Policies**

Chair: Stefano Armenia and Maurice Yolles Room 2- 14,15 -16,15 pm

A proposed model for new Socioeconomic Environmental Dynamics project - *Paolo Mazzara*, Sales & Proposals Manager, Kinetics Technology SpA (Italy).

Risk management in a complex environment: a model based systemic approach - Giovanni Paolo Sellitto, Independent Scholar (Italy)

Towards a systemic perspective of the sustainable development goals through the Brazilian case- Luciana Oranges Cezarino Assistant Professor of Business and Management, Federal University of Uberlandia, Omar Sacilotto Donaires, Master Student, Adriana Cristina Ferreira Cadana, Assistant Professor and Lara Bartocci Liboni, Assistant Professor, School of Economics, Business Administration and Accounting, Ribeirão Preto of University of Sao Paulo (Brazil).

**Corporate Social Responsibility Disclosure in the Banking System** - *Ivan Nania* and *Davide Di Fatta*, PhD candidates in Economics and Business, University of Messina (Italy).

Perspectives of improvement in the dynamics of management of the vehicular flows in the great cities with the purpose to optimize the relationship social cost / benefits. A way to achieve the social good or to make cash? - Luca Brancato, Independent Scholar (Italy)

#### **Tourism and Place Systems**

Chair: Gianpaolo Basile Room 1- 16,45- 17,30 am

From Place Brand to "Place as Brand": a Systemic view - Gianpaolo Basile, Lecturer, Maria Antonella Ferri, Associate Professor, Universitas Mercatorum and Gandolfo Dominici, Associate Professor of Marketing, University of Palermo (Italy).

A systems approach on sustainable mobility of visitors travel behaviour case Chatuchak market Thailand - *Amphai Wejwithan*, PhD Student, Vienna University of Technology (Austria).

The importance of institutional assets for business models. The case of tourism industry - *Valentina Della Corte*, Associate Professor of Business Management , *Giovanna Del Gaudio*, PhD, *Chiara D'Andrea* and *Fabiana Sepe*, PhD Students, University of Naples "Federico II" (Italy).

#### POSTER SESSION

#### **MONDAY AND TUEIDAY, JANUARY 23, 24, 2017**

> DISPLAYED ALL DAY

- > Entrepreneurial University Model Short literature review Ineza Gagnidze, Iv. Javakhishvili Tbilisi State University, Georgia.
- Challenges of Entrepreneurial Attitudes and Business Activity in Georgia Ia Natsvlishvili. Tbilisi State University, Georgia.
- > The State Tourism Policy Model of Georgia Marina Metreveli, Georgian Technical University, Georgia.
- > The objective of the Company mission is based on the policy for enhancement of corporate social responsibility- *Irina Gogorishvili*, Iv. Javakhishvili Tbilisi State University, Georgia.
- About Marketing Process Model and Relationship Marketing- Maia Seturi and Ekaterine Urotadze, Iv. Javakhishvili Tbilisi State University, Georgia.
- Effective models formation of travel companies' management in Georgia Zeinab Surmanidze and Ketevan Tchanidze, PhD Students, Batumi Shota Rustaveli State University, Georgia.
- > The role of the information systems in the risk management model (On the example of the customs system of Georgia)- Rusudan Seturidze, Iv. Javakhishvili Tbilisi State University, Georgia.
- > The systemic approach to teach safety in the workplace. A concrete example"- Antonio Leva, Rita Vallerotonda and Daniele De Santis, INAIL, Italy