

# Diamonds of the Orgiton Theory

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# Introduction

Orgiton Theory can be regarded as:

- Systems Theory e.g. in social systems
- Cybernetics
- Selforganisational Theory
- Chaos Theory
- → tends to be interdisciplinary

Content of the Presentation:

- Eight Diamonds of the Orgiton Theory
- Applications to Industrial Engineering and Management

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# Diamonds of the Orgiton Theory

## Diamonds of the Orgiton Theory I



Figure 1: Diamond 1: §2 Orgiton

- Form-minimal cybernetic unit of mass, energy and information usually containing back-cycling
- → Modelling of computational virtually any system e.g. a technical production system
- → Management argumentation: natural language argumentation

## Diamonds of the Orgiton Theory II

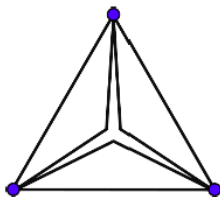


Figure 2: Diamond 2: §3 Orgiton Grammar

- Orgitonal information compression expressed in language (self-application of orgiton theory to natural language use)  
→ language regarded as emergent intelligent human-centric sign system

## Diamonds of the Orgiton Theory III

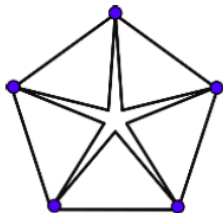


Figure 3: Diamond 3: §5 Directionality

- Directionality as a describing methodology allows for system order description. E.g. chaos theoretical dynamic system of state space



## Diamonds of the Orgiton Theory IV

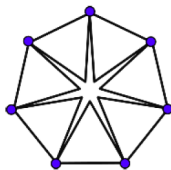


Figure 4: Diamond 4: §7 Osmotic Paradigm

- Osmotic Paradigm as description of complex emergent resilient systems
  - Popularly known as ecology and related properties e.g. diversity is good for business, ecological systems
  - Inspired by Einsteins's osmotic model in particle physics → describe flow systems with a reduced set of information: set of distances and forces → e.g. graph theory

# Diamonds of the Orgiton Theory V

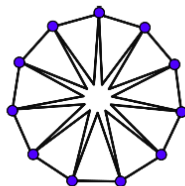


Figure 5: Diamond 5: §11 Emergence Theorem

- Order increases by steps
  - Long term trajectories
  - Growth processes
  - Chaostheoretical description → explicit system modelling
  - Production Simulation of Production Systems → Statistical Data Use in Modelling and Prediction Models

## Diamonds of the Orgiton Theory VI

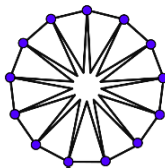


Figure 6: Diamond 6: §13 Emergence Contraction 1 = n 1

- Basic process of information compression takes place by equating and introducing emergent elements (also orgitons)
  - E.g. equation systems: energy balance, material balance etc. → computational modelling

## Diamonds of the Orgiton Theory VII

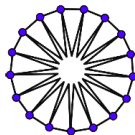


Figure 7: Diamond 7: §17 Cybernetic Ethics

- $\uparrow$  Order in social systems by suitable ethical systems  $\rightarrow$  application of emergence theorem: Emergence increases by increased higher basic order, itself stable
- Chain reaction argument: The equilibrium is based on the order the base equilibrating system.
  - e.g. language translation  $\rightarrow$  one language room  $\rightarrow$  new (theoretic) equilibrium) by real-time translation  $\rightarrow$  translation is important (application of emergence contraction principle §13)

## Diamonds of the Orgiton Theory VIII

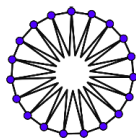


Figure 8: Diamond 8: §19 Social Dynamics

- Describe Social Dynamics with language adequately (natural language description)
- <sup>1</sup>Describe Social Dynamic Systems with Mechanical Engineering Systemic → Orgitons (cybernetic units) of Social (scalable) systems → give rise to new scientific discipline of 'social mechanics'

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<sup>1</sup>in working progress

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# Applications of Orgiton Theory

## Relevance of the Work General Application

- Epistemology, Theory of Science
- Theories → understand and develop interdisciplinarity by adaptive translations
- Applications → preferable to all interdisciplinary approaches e.g. Industrial and Engineering and Management

# Application to the Industrial Engineering and Management Discipline

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- Teaching and consulting aid
- Social Dynamics – management and engineering applications
  - Modelling of socio-economic systems for industrial engineers: e.g. productions systems, financial systems, business systems
  - **Orgitonisation:** Formulation of 'Orgitons', as mathematical and thought models for describing systems by use of natural language → natural language programming techniques → automatisisation → human machine interaction for rational business decision support.



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# Summary Conclusion and Outlook

## Conclusions and Outlook I

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## Summary and Conclusions:

- Introduced Diamonds of Orgiton Theory - picked elements of Orgiton Theory → growing theory
- Applications of Orgiton Theory to Industrial Engineering and Management.
  - Simulation with Orgiton models in Computational Simulation Tools (equations based, model based, dynamic cybernetical)
  - Use in Natural Language Argumentation, → logical consistent strategies → decision support systems e.g. with 'lambda computatrix' (lambda calculus) computation

## Conclusions and Outlook II

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## Outlook:

- Explicit Social Dynamical Modelling
- Chaos Theoretical Modelling
- Implementation of Lambda Computatrix in Management Decisions Tools, in general management, entrepreneurial management and in production systems
- Integration and Application of Artificial Intelligence Systems to Management, Business and Production

Thank you cordially for your attention!



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PS.: The presentation can later also be found at:  
<http://www.dr-heiden.com/Vortraege.htm>

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