ARTEM OCC 2015
Book of Abstracts
THURSDAY, MARCH 26, 2015 ................................................................. 4

PARALELL SESSION 1 ........................................................................... 4
  Syncretism and paradigm change in business management ........................................ 4
  Combating environmental risk in low velocity industries: using dynamic capabilities to develop new
  organisational processes that lead to systemic innovations ....................................... 4
  Creativity and Entrepreneurship: A Team-Based Learning Analysis of Firm Early Development and
  Performance ............................................................................................... 5
  Ideas are feelings first: On epiphanies in everyday workplace creativity ...................... 5
  Who Should Be on a Board Corporate Social Responsibility Committee? .................. 6
  Corporate finance practice in Brazil: A survey ....................................................... 6

PARALELL SESSION 2 ........................................................................... 7
  Social networking sites (SNSs) – smart platforms for public service innovation .......... 7
  What drives creativity and innovation in the insurance industry: Application of Amabile’s framework within a
  highly regulated industry ................................................................................. 7
  Creativity and maturity in team-based innovation - a model for assessment of interaction quality in relation
  to task characteristics .................................................................................... 8
  Learning and sustainable development in High Reliability Organizations – a role model for traditional work
  organizations? ............................................................................................... 8
  Sustaining Human Resources Via Aesthetic Practices .............................................. 9

PARALELL SESSION 3 .......................................................................... 10
  LISA model: A new way to apprehend advertising persuasion process .................... 10
  The future is in dialogue ................................................................................... 10
  Determinants of responsible consumer behavior in France ...................................... 11
  SSDSIM, Or how to be creative to produce a sustainable solar drier simulator ........... 11
  United we stand, divided we fall. Learning from creative SME collaborations .......... 11
  2MW: A novel metamodel to enhance creativity in participatory conceptual design of bioenergy systems .. 12

PARALELL SESSION 4 ........................................................................... 13
  Two-step Impact Evaluation of Consumer Climate Education Interventions ............... 13
  Art based intervention through tool-kit-based modeling and serious play – A case study from regional health
  care development in Japan ............................................................................ 13
  Creative Learning Methods: The “C²- Business Game” using LEGO® Serious Play® ...... 14
  Art, finance and logistics: creative arrangement for a sustainable economic development .... 15
  Lean et RSE : entre contradiction et complémentarité ............................................. 15
  Determination of Corporate Social Responsibility: Case From Indonesia .................. 16
FRIDAY, MARCH 27, 2015

PARALELL SESSION 1

Embodied & artful design for a creative and sustainable inter-practicing in organisations and leadership .......................................................... 17
The rise and fall of Art Nouveau: (de)legitimation processes in creative industries .......................................................... 17
Music and Sustainability: organizational cultures towards creative resilience .......................................................... 17
Organizational diffusion of creative process developments – a case example from home care .......................................................... 18
Art as Tool – Museum as Lab Concept development of a new value creation stream to co-create the cultural context for innovation for sustainable development .......................................................... 18
Exploring and designing sustainable management by applying and embedding creative and playful modelling methodologies in a cross cultural context .......................................................... 19
Study of Aalto University: is the “innovation university” creative? .......................................................... 20
Creative Business Days - IDEAS in Action .......................................................................................................................... 20

PARALELL SESSION 2

What Popular Music Can Teach: Blues as an Example of Sustainable Living to Renew the Conception of Business Life in Organizations and Business Schools .......................................................... 21
Assessment of Creativity in Project-Organized Group (POG) for Developing Sustainable Pedagogy in Chinese Universities .......................................................................................................................... 22
Arts-mediated critical management learning for health/social care in Japan .......................................................... 22
Art as theoretical inspiration in management science .......................................................................................................................... 23
Créativité et gestion du patrimoine : L’investissement alternatif dans le Vin .......................................................... 24
Towards a responsible research applied to rare earths for a sustainable development .......................................................... 25
Light infrastructures and site-specific practices as revitalization engine of marginal areas .......................................................... 25
Investigating a safer and greener frother option for oxidized coal flotation .......................................................... 26

PARALELL SESSION 3

The triple layered business model canvas - A tool to design more sustainable business models .......................................................... 27
Stressing the Green in Green Supply Chain Management: a framework of key success factor dynamics .......................................................... 27
Society and Materials, a series of regular seminars based on a dialog between soft and hard sciences .......................................................... 28
Towards an exploratory study of the effect of moral imagination on ethical work climate: proposition of a model .......................................................... 28
Creativity in the economic turmoil: a review of the empirical literature .......................................................... 29
Creativity and organisational learning as means to foster sustainability .......................................................... 29
Creativity in Sustainable Design within a Society of Risk Management .......................................................... 30
Signalling for Sustainability: An Affective Sensemaking Process for Generative Change within Organizations .......................................................... 30

PARALELL SESSION 4

Socially Responsible Research, but whom to trust? The example of a Renewable Energy .......................................................... 31
When Biological Analogies Miss Sustainability .......................................................... 32
When Creativity Meets Practice of Sustainability: A Systems Approach to Analysis of a Danish Renewable Energy Project .......................................................... 32
Evaluation of ideas generated during creative workshops .......................................................... 32
Can Creativity Thrive Within Virtual Teams? .......................................................... 33
Creative Evidence-Based Design and Transformative Service Research Application for Achieving Sustainable Healthcare Services: A Developing Country Perspective .......................................................... 33
Can innovative reforms and practices resolve financial distress efficiently? .......................................................... 34
THURSDAY, MARCH 26, 2015

PARALLEL SESSION 1

Syncretism and paradigm change in business management

Fabien Martinez, Ken Peattie, Diego Vazquez-Brust

Abstract: This article explores the concept of syncretism to articulate a theory that may help to accelerate progress in developing substantively more sustainable business activities. One reason why the integration of environmental and social responsibility in business has been so difficult to achieve in practice is that it is not just a battle of competing business logics, but a battle of faiths. The notion of syncretism with its roots in religious and cultural synthesis may be far more relevant and useful than conventional approaches to combining the two which rarely seem to rise above a ‘win-win’ appeal to logic. By reviewing existing research on business sustainability and by going beyond the current literature, this paper formulates the workings, constituents and boundaries of a syncretic theory of reconciling paradigms.

Keywords: Sustainability, Corporate Social Responsibility, Decision-making, Environmental Responsibility

Combating environmental risk in low velocity industries: using dynamic capabilities to develop new organisational processes that lead to systemic innovations

Kenneth Dooley

Abstract: The changing market conditions driven by the degradation of the natural environment will induce firms in low velocity industries to reconfigure resources and capabilities. This article argues that strategies implemented to survive in the new environmental regime can be uncovered by employing dynamic capabilities to redesign organisational processes which in turn lead to systemic innovation. Systemic innovation is proposed as the key to overcoming the barriers commonly associated with reducing the environmental impact within a product system. The introduction of a single change can result in a systemic innovation if it produces complementary changes in one or more areas of the value chain. This cumulative effect not only ensures survival under the new conditions but can also lead to a significant improvement in both environmental and financial performance. Systemic innovations can produce a change that is similar in magnitude to that produced by radical innovations, yet the resultant change is not radical as it in fact enhances the capabilities of incumbent firms. In addition, systemic innovations are not driven by technological change; instead they leverage knowledge of value chain interdependencies to reconfigure the existing product system in a more efficient manner.

Keywords: systemic innovation; dynamic capabilities; knowledge integration; environmental risk
Creativity and Entrepreneurship: A Team-Based Learning Analysis of Firm Early Development and Performance

Mahamadou Biga Diambeidou, Gailly Benoit, Mavoori Hareesh, Eberhardt-Toth Edina, Ivanova Olga

Abstract: Understanding the entrepreneurial processes and how we can inspire and teach entrepreneurship is currently one of the core issues of the European Union 2020 strategic plan. Empirical evidence in several developed economies has shown that small, independent firms - and especially the new entries - contribute disproportionately to innovation, job creation and regional economic well-being. Despite increasing research interest on the topic of Entrepreneurial Education (EE), a critical examination of the relevant literature reveals that it is still unclear to what extent such education impacts the level of graduate entrepreneurship or whether it enables graduates to become more effective entrepreneurs (Pittaway & Cope, 2007). Scholars posit that a substantial component of contemporary entrepreneurship education appears to be largely theoretical and is not well supported by empirical evidence of its practical effects (Honig, 2005). Furthermore, while the Academy of Management Learning & Education special issue argues that entrepreneurial education needs to reflect the real-world environment (Greene, Katz & Johanisson, 2004), little attention is devoted to how, through experience, develop creative and entrepreneurial knowledge that may have positive impact on subsequent venture performance (Politis, 2005).

Consequently, we ask ourselves how to best develop an effective approach in the context of higher education that can positively impact on the entrepreneurial learning process leading to new venture performance. Following the paths of Shane & Venkataraman (2000) and Davidsson (2004), we set our research in the context of the firm early development process. Building on entrepreneurial action and diversity theories (McMullen and Shepherd, 2006; Jackson, May and Whitney, 1995; Cox, 1993), this study explores whether connections exist among team characteristics, entrepreneurial action and performance. It argues that team diversity and creativity have a positive relationship with new venture performance.

Keywords: Creativity, Entrepreneurship, Performance, Team-Based Learning, Virtual

Ideas are feelings first: On epiphanies in everyday workplace creativity

Ad Van Iterson, Stewart Clegg, Arne Carlsen

Abstract: This paper contributes to the literature on workplace creativity by combining insights on epiphanies with theory on the embodied nature of understanding. We use the concept of epiphany—a sudden and transient manifestation—in its artistic connotation, specifically as it is developed and applied by the author James Joyce, i.e. we elaborate on the mundane origins of epiphany and its crucial aspect of the conjunction of different human senses (seeing, hearing, smelling, tasting, feeling). We draw upon theory of ideas as embodied, felt qualities in experience, as described by Mark Johnson (2007) and predecessors in pragmatism. We use selected examples from idea work in organizations to show how both sets of theories help us understand the everyday, multi-sensuous sudden manifestations of insight and discovery: All ideas are essentially feelings first. Further,
epiphanies are also typified by a history of preparation, can involve feelings of doubt and disconfirmation, are a typically manifest as a series of occurrences, and are inherently relational.

Keywords: epiphany, multi-sensuous experiences, embodied idea development, workplace creativity

Who Should Be on a Board Corporate Social Responsibility Committee?

Edina Eberhardt-Toth

Abstract: How to design the composition of a board corporate social responsibility (CSR) committee in order to positively impact corporate social performance is the focus of this empirical investigation. Corporate social performance includes social, environmental and economic performances. We conduct binary logistic regression analysis on firm-level data of year 2012 from the Bloomberg World Index of 178 non-financial companies having created a board CSR committee and study the influence on corporate social performance of demographical components of this board sub-committee specialized in CSR issues. Proxy for corporate social performance is the membership of companies within the Dow Jones Sustainability World Index. We propose a board CSR committee composition effectiveness model and find evidence for higher corporate social performance being more likely in companies having a larger proportion of independent directors within the board CSR committee, where the chief executive officer is not a member of this committee, with a female chairing this committee and with a smaller size of this committee. For companies who intend to create a board CSR committee, or wish to improve the effectiveness of their existing board CSR committee, the results of this study are useful to decide who should be part of this committee.

Corporate finance practice in Brazil: A survey

Cristiane Benetti, Paulo Renato Soares Terra, Roberto Frota Decourt

Abstract: We report results of the Brazilian administration of the well-known Graham and Harvey (2001) survey. We rigorously translated and validated the questionnaire before administering it over the Internet. We delivered the questionnaire to 1,699 Brazilian private and public firms and received 160 responses for a return rate of 9.4%. We analyze the responses conditional on firm characteristics. The results of the financial policy survey in Brazil indicate that firms employ NPV and IRR as preferred investment techniques and the CAPM and its variations as the method for computing the cost of equity capital. They are also concerned with the cost of debt, transaction costs of market instruments, and they use internal funds as their main investment funding source. Also, conditional analysis indicates that large, listed, growth, and regulated firms behave significantly differently regarding financial decisions than their counterparts. Therefore, the most important takeaway from this study is that the institutional environment (i.e. markets, institutions, instruments, and the economy) is an important determinant of the practice of corporate finance.

Keywords: Survey, Corporate Finance, Emerging Markets, Brazil.

JEL Classification Codes: G31, G32, G34, C42.
PARALLEL SESSION 2

Social networking sites (SNSs) – smart platforms for public service innovation

Harri Jalonen

Social networking sites (SNS) refer to web-based services that facilitate the formation of the relationship between online users and sharing information and content for such relationships. Facebook, Twitter and Google+, to name just a few, have over a short period of time changed the ways people interact with each other. SNSs are not confined to the relationship between users who share similar interests, but they can also be exploited in the communication within organisations and across organisational boundaries. Presumably this increase creativity potential as well. Studies show that companies beneficially use SNSs, among other things, in marketing and promoting brands, improving personnel satisfaction, opening up their innovation processes and increasing organisational agility (e.g. Kaplan & Haenlein, 2010; Standing & Kiniti, 2011; Berthon et al., 2012; Vuori & Okkonen, 2012; Hemsley & Mason, 2013).

Despite such research, there appears to be a knowing-doing gap with regard to how SNSs can be effectively used in enticing creativity and engaging citizens in public service innovation. The reasons are probably as numerous as there are interpreters. SNSs divide minds and breed opinions in which SNSs are either embraced or despised. From the positive perspective, social media is not an alternative to real life, but an irremovable part of it. It has been argued that SNSs have introduced significant although unanticipated consequences to society, politics, economics and culture. Congruently, the argument goes on that only organisations that recognise the need for sharing knowledge openly with their customers, partners and employees through SNSs will survive. The counter argument is that there is nothing exceptional and fundamentally new in SNSs. From this perspective, SNSs are just another communication channel among many others. This critique argues that the implementation of SNSs does not necessarily lead to more social, open or participative communication than more traditional methods (Denyer et al., 2011).

What drives creativity and innovation in the insurance industry: Application of Amabile’s framework within a highly regulated industry

Dina Williams, Harvey Patey-Ford

Abstract: The purpose of this study is to investigate the impact of organizational factors on creativity and innovation within a Lloyds of London affiliated insurance company. Exploring the creative environment of an industry that is characterised by stringent and ridged regulations, provides an opportunity to understand how to encourage innovation to thrive in a challenging environment. Theoretically this paper is grounded on a framework proposed by Teresa Amabile (1996); empirical results are obtained through in-depth interviews of employees at a market leading litigation insurer. The paper contributes a further understanding of the role of a creative environment in an organization and the key factors that constitute that environment. Findings of the research support the main premise outlined in Amabile (1996) in relation to highly regulated industry.

Keywords: Creativity, Innovation, Creative Environment and Insurance Industry.
Creativity and maturity in team-based innovation - a model for assessment of interaction quality in relation to task characteristics

Bengt Köping Olsson

Abstract: This paper deals with group creativity, i.e. production of originality through combination of differences, and suggests a model for assessment of interaction quality, i.e. group maturity, in relation to work task characteristics vis-a-vis a shared content, i.e. group ideas. The process of generating original ideas and develop that kind of ideas in work group is defined as a complex activity, i.e. the co-operation of several mutually deviant factors such as combination of different knowledge areas, intensity of idea exchange and critical evaluation. This research is conducted from the perspective of a team paradigm which means that group creativity and group dynamics are studied in the team’s day-to-day work setting in order to develop an understanding of the competence and abilities at group level in relation to the tasks characteristic. In line with that perspective we propose that the team’s interaction quality should be understood and described in relation to the shared content evolving from team member’s interaction, i.e. the group idea. Furthermore, by taking a complex systems perspective, the team can be understood as an entity that can develop certain traits as well as inter-subjective competences, i.e. a know-how depending on the other team members. Results from a questionnaire study conducted in the framework of an ongoing evaluation and research project in the public sector in Sweden with 80 respondents form the initial basis for the development and evaluation of a model for the assessment of maturity for team-based innovation. The analysis of questionnaire data confirms the positive relationship between group performance, i.e. the production and development of creative ideas on the one hand and the quest for originality combined with critical analysis and evaluation on the other hand. Analysis of data from two of the four working groups also show that encouraging climate and extrinsic motivation, often considered to have major importance for creative performance, do not necessarily have that effect on idea generation and idea development.

Keywords: team interaction, group creativity, innovation maturity, competence.

Learning and sustainable development in High Reliability Organizations – a role model for traditional work organizations?

Silke Geithner, Klaus-Peter Schulz, Peter Mistele

Abstract: High reliability organization (HRO)such as fire brigades, emergency rescue services or special police forces are forced with dynamic, unknown or completely new situations and they have to cope with insufficient information, time pressure, urgent need for action, stress and inherent hazards(Weick/Sutcliffe 2001). Despite these environmental situations HRO"s are able to maintain high performance and achieve very good results e.g. safe lives, minimize hazards or prevent environmental damages. From the capability aspect experienced based learning and competence development on individual and team level are essential for such high performance. In the paper we will discuss whe-therHRO"s could become a role model for organizational development in industrial en-terprises. From a theoretical background we refer to the high reliability theory from Weick and Sutcliffe (2001) as well as activity and experience based learning approaches (e.g. Bateson 1972; Kolb
1976; Engeström 2001). Our research is based on several qualitative field studies within emergency rescue services, fire brigades and police special forces and with three producing companies (SME-type industries).

Keywords: high reliability organization, reflection and development, after action re-views, experience based learning.

Sustaining Human Resources Via Aesthetic Practices

Rohan J. Crichton, Paul Shrivastava

Abstract: The worldwide stress epidemic is crippling employees, and as result majorly impacting organizations. Human resource sustainability, that is the health and wellbeing of the workers, is now more than ever in critical focus. Our paper aims to enhance human resource sustainability through aesthetic practices. Based on a detailed examination of the literature and extensive case studies of organizational aesthetic best practices, we present a model of how stress is mitigated by aesthetic practices mediated by sensory and emotional knowledge and moderated by rewards. We explore implications for research and practical application of aesthetics in companies.

Keywords: aesthetics, human resource, stress, sustainability, reward, knowledge, emotional intelligence

Self-Employment: Does Parental Cultural Diversity Matter?

Marianna Marino, Pierpaolo Parrotta

Abstract: This paper tests the hypothesis that the family environment of culturally heterogeneous parents can provide different approaches, useful to build mind-openness and creativity and to acquire specific human capital, through the transmission of a combination of different attitudes, practical skills and experiences, that can be ultimately beneficial to children starting-up a new business. We find evidence that parents with different cultural background favor self-employment experiences of their children. The effect of parental cultural diversity turns out to be stronger for children with no siblings or having at least a parent with university degree.

JEL Classification: L26, J21, D10.

Keywords: Parents’ cultural diversity; self-employment experience.
PARALELL SESSION 3

**LISA model: A new way to apprehend advertising persuasion process**

Filali Douniazed

Abstract: Clients’ greatest fear these days is to see their teams’ wasting their time re-creating or getting stuck on what they have done before. And problem solving is still often approached through discussions and debates.

Not being heard and not being able to share effectively with others are a constant source of stress for people in collective settings. How might we reverse this situation so that when we communicate with colleagues, we can really share and constructively take forward the issue or the problem faced together?

Deep listening is an essential skill that we have not always learnt or fail to practice effectively on a daily basis. It is essential for mutual understanding, creativity and shared visioning of the future. Once deep listening is in place, real dialogue can happen – in lieu of the more usual or typical endless debates that systematically occur in an environment where competition rather than collaboration is nurtured.

The history of dialogue goes as far back as American Indians’ way of solving problems. Its growth and re-discovery is widely attributed to the physicist, David Bohm. It is now practised through change management processes such as Theory U and creative methods like The World Café or LEGO® Serious Play®.

The potential impact of dialogue will be experienced first-hand through the use of the Visual Explorer cards.

The main principles underlying the use of dialogue are: a focus on how one personally feels about the issue at hand; owning what one says and contributes, moving away from generalisations; not commenting on or questioning others’ contributions; embracing the silence when it occurs; allowing for a collective output to organically emerge through “uncontaminated”, individual contributions.

It is hoped that participants will leave with ideas on how they might apply the use of dialogue in their own professional environment.
Determinants of responsible consumer behavior in France

Olga Ivanova, Javier Flores, Silvester Ivanaj, Insaf Khelladi

Abstract: This study aims at identifying the determinants of responsible consumer behavior in France. Based on the theory of planned behavior and theory of reasoned action, we develop a conceptual model, which tests the influence of self-efficacy, media exposure, social group and self-identity on environmentally-responsible attitude. Afterwards, the relationship between environmentally-responsible attitude and purchasing intention is tested. Based on data collected from 1098 respondents during the fall 2014, results show that self-efficacy is the strongest predictor of environmentally-responsible attitude in France followed by media exposure and social-group influence. In addition, clear self-identity seems also to be a strong determinant of responsible attitude.

Key words: responsible consumption, determinants of responsible consumer behavior, France

SSDSIM, Or how to be creative to produce a sustainable solar drier simulator

Yolanda Bolea, Alexandre Miranda, and Antoni Grau

Abstract: Solar driers do not generate CO2 emissions because they operate with a renewable energy source, the sun. In this paper these emission mitigations are evaluated if other non-renewable energy sources were used, such as fossil or non-fossil fuels. To perform this comparison authors have developed SSDSim, a novel solar dryer simulator based on a real solar drier. The creativity of the new design of dryers developed for the food industries to achieve best economic, social results taking into account the sustainability is a fact. But those innovative dryers should be tested at all levels before they are produced. Therefore a new simulation tool to study and forecast the behavior of the dryer system has been developed in order to improve its drying efficiency. The main feature of this simulator is that most of the parameters are permitted to be changed during the simulation process allowing finding the more suitable system for any specific situation with a user-friendly environment.

Keywords: Creativity, Sustainability, CO2, Solar drying, Simulator.

United we stand, divided we fall. Learning from creative SME collaborations

Gaëlle Dechamp, Bérangère Szostak

Abstract: In this article entrepreneurial success and territorial dynamics are considered as linked to the capacity of economic actors like SME’s to collaborate with others in order to create innovative projects. It seems important to develop a deeper understanding of how these organizational creative collaborations in SME are managed; what does influence the effectiveness of these. This paper presents a qualitative study aimed at answering the question: How do we manage organizational creativity in a SME collaborative context?

Our theoretical backgrounds are rooted into 2 literatures: (1) collaboration between SME and (2) organizational creativity. We highlight main dimensions for each of them: (1) synchronic acts,
common objectives and problem-solving co-construction and (2) a specific context, the engagement of individuals in a creative process and organizational renewal capacity. Afterwards we study them in a case study: “Design Contest” in a French region. Four initiatives are analyzed with a qualitative methodology.

Results suggest studying new directions as creativity of SME leaders or “trust between actors” (intentional confidence, competence-based confidence and institutional confidence). Moreover actors have to speak a “common language”. We can wonder how and where they can develop it. We suggest also to imagine some kind of measure to raise the importance of collaboration with other firms to generate innovation, and to increase the awareness of SME leader on this topic.

Keywords: organizational creativity, SME’s collaboration, case study, design.

2MW: A novel metamodel to enhance creativity in participatory conceptual design of bioenergy systems

Ricardo Martins, Judith Cherni, Nuno Videira

Abstract: This paper presents the 2MW, a novel design tool to promote creativity in participatory conceptual design of wood fuel energy systems (WES). In Mozambique over 70% of the population depends exclusively on wood fuel for energy mostly through an informal business that mobilises over 800€/year and is linked with complex issues (e.g. deforestation, respiratory health). WES are complex socio-ecological systems encompassing a wide number of diversified elements (structural complexity), uncertainty (behavioural complexity) and possible conceptualizations from different actors, e.g., producers, distributors, consumers, policy makers, technical experts, governmental officials, researchers (cognitve complexity). Creative design has been identified as useful path to address complexity, and thus essential to the WES design quality is the effectiveness of design tools (models and approaches) to promote creative options to fulfil predefined objects, e.g., energy sustainability and efficiency. However, while of critical importance, the development of tools to support WES creative design poses an incredible challenge: the need to consider WES structural complexity while providing space for cognitive complexity to be expressed through creative design and problem structuring. The few tools available for WES design do not cope with this challenge since they are concerned with optimizing economic and technological solutions from expert and disciplinary driven perspectives. Fundamentally departing from these tools, the 2MW constitutes a non-normative, non-prescriptive, non-computer based design space/framework for people with different backgrounds and knowledge to enact their imagination and creativity within their own cultural perspectives, while interactively and reflexively engaging in learning dynamics, participatory problem analysis and conceptual design of WES. Practical results show that 2MW effectively and efficiently can involve a wide range of WES actors in knowledge sharing and creative dialogue to produce innovative and more comprehensive and integrated WES designs. The 2MW has been tested in Mozambique and this article analyses the experience, but is potentially useful for bioenergy systems in different contexts.

Keywords: Biomass Energy Systems; Design thinking; Systems Thinking; Embedded Creativity; Creative Design.
PARALELL SESSION 4

Two-step Impact Evaluation of Consumer Climate Education Interventions

Hansjoerg Gaus, Christoph Mueller

Abstract: This paper aims at demonstrating exemplarily possible designs for the evaluation of interventions in the field of organizational creativity related to the goal of achieving sustainability. The evaluation of a large-scale consumer education programme on climate protection provides the background for illustrating how a two-step impact evaluation can be conducted and why it is worth doing so. Step 1 evaluates the causal impact of an intervention with adequate experimental or quasi-experimental designs, thereby answering the question whether an intervention actually has the intended effect. In cases where the application of control-group designs is threatened by selection effects, propensity score matching proves a valuable tool. Step 2 then assesses the factors that contribute to the observed effects. Structural equation modelling with partial least squares (PLS) allows estimating complex models even with small samples. Thus, the results of such a two-step impact evaluation not only inform the programme managers about which interventions are effective and hence should be maintained, but also how they should be designed to gain maximum effects.

Keywords: consumer climate education, impact evaluation, partial least squares, propensity score matching, short-term interventions.

Art based intervention through tool-kit-based modeling and serious play – A case study from regional health care development in Japan

Klaus-Peter Schulz, Takaya Kawamura, Silke Geithner

Abstract: In the last several years health care systems and institutions in most countries have faced major challenges (e.g. Prybill 2003; Griffith & White 2005; Ginn 2006; Bandyopadhyay & Hayes 2009). In particular, they are confronted by having to balance any tension between quality of service and costs (e.g. Khatri et al. 2006). Therefore, learning, system improvement and innovations are seen as “fundamental for healthcare organizations cope with changed framework conditions. Thereby inter-functional and interdisciplinary interaction between the main actors – general practitioners, specialized physicians, nurses, therapists and health care administrators as well as health care policy makers – are crucial for the efficiency and enhancement of a health system. The heterogeneous knowledge, experience and motivation of the diverse actors as well as their ability to overcome institutional boundaries (Kerosuo 2006) significantly influence the performance of health care processes and institutions (Rondeau & Wagar 2002). Particularly, healthcare organizations are characterized by their incorporating various stakeholder and interest groups that influence structures, rules and practices. Organizations often exploit any creative potential by encouraging various stakeholder groups to take on change and development activity (Sanoff 2000; Reed et al. 2012). In these contexts new ideas are likely to emerge out of mutual reflecting and practicing (West & Farr 1990; Amabile 1996; West 2002; Sannino & Ellis, 2014). However, despite the creative potential of such activity, participants are confronted with diverse perspectives and understandings. At the same time, it is the diversity of the participants combined with their ability to share meaning and understanding which provides creative potential (Cropley 2006; West 2002). Moreover, this
exchange and collaboration bring into question power relations between these actors. Therefore, these subtle power struggles and the personal concerns of different stakeholder groups need to be taken into account. Such aspects are relatively strong in health care practices since e.g. nurses and doctors are often deeply personally engaged in their profession (Mintzberg 1989; Chambliss 1996; Larson 1977; Abbott 1988).

Consequently the question arises as to how change, system development and learning processes in health care can be facilitated, countering this diversity of stakeholders. A major aspect of this is how a collectively shared understanding and language about the object of consideration can develop among the participants, which is an essential prerequisite in learning processes where different disciplines and professional cultures meet (Jacobs & Heracleous, 2006; Schulz, 2008). From our point of view haptic models, mock-ups and stories play an important role as metaphors for understanding and sense-making within development and innovation process (e.g. Buur & Matthews, 2008).

Therefore, we will introduce a tool-kit-based modeling and serious play methodology which actively integrate all stakeholders into learning and development processes, allowing them to gain awareness, exchange knowledge as well as to develop and discuss ideas within a group. The method is characterized in the following. As an empirical case study we refer to a development workshop applying the serious play methodology with diverse health care practitioners in leadership positions (e.g. head nurses, therapists, doctors, hospital managers, social workers, paramedics) of an urban region in Japan. They gathered to discuss problem areas of their current care processes and to construct a shared vision of future health care essentials in the region. We explore how such a heterogeneous group of health care practitioners apply the serious play method to expose ideas and concepts of change. Finally we discuss in what fields and stages of change and development processes in health care such methodology can be successfully applied.

Creative Learning Methods: The “C²- Business Game” using LEGO® Serious Play®

Silke Geithner, Daniela Menzel, Stefan Donath

Abstract: Limits of formal education (e.g. classroom teaching and teacher-centered approaches) to develop professional competence are already known, especially the problem of transfer from learning area (school, university) into real-work contexts is discussed as “holy grail of educators” (Resnick 1989: 8; see also Engeström 2001; Tuomi-Gröhn 2005; Burke & Hutchins 2007). The “transfer” is particularly a challenge in contemporary work contexts such as co-configuration where demands permanently change (Engeström 2004). Therefore, we seek for creative learning methods which foster self-regulated learning (Boekaerts 1999; Wirth & Leutner 2008) as well as team-based learning and collective reflection with respect to real work situations (Elmholdt & Brinkmann 2006: 170). Against this background we developed the “C²- Business Game for Project Management and Soft Skill Development” which we will describe and discuss in the proposed contribution. The “C²- Business Game” was developed in close cooperation with an international automotive supplier in order to meet real-work practice needs in education and training. Based on the example of a site location decision and the set-up of a new plant in China the participants of the business game experience the challenges of an interdisciplinary team as well as of project management. The business game is conceptualized as role-play game with special emphasis on interaction and team
work. We combine individual and group work with the creative learning method LEGO® Serious Play® which helps to express diverse understandings and to exchange knowledge through hands-on modelling. Aim of the business game is to acquire and improve both project management and social skills of the participants. In the paper we will describe the development and design of the “C²-Business Game for Project Management and Soft Skill Development” and findings of its test runs. Moreover, we will explain and discuss the evaluation concept which consists of an online competence assessment before and after the game, participatory observation during the game, video documentation and analysis and a survey afterwards (mixed methods approach).

Keywords: business game, LEGO® Serious Play®, project management, development of soft skills

Art, finance and logistics: creative arrangement for a sustainable economic development

Thierry Houé

Abstract: The paper focuses on the setting-up of a free zone to encourage the economic diversification of the Grand Duchy of Luxembourg. For storage, handling and trading of high value items and in particular artworks and jewelry, The Luxembourg Freeport was inaugurated in September 2014. Using the resource-based view, the paper aims to show what combinations of resources can have a positive impact on economic activities in connection with the Freeport. The research confirms that these activities go beyond pure logistical and operational views. The paper highlights a triptych of resources justifying this location in an environment where art, finance and logistics seem to create a virtuous circle to benefit the economic development of the country and promote the rise of clustering effects.

Keywords: Art, cluster, economic development, finance, Freeport, logistics, resource-based view.

Lean et RSE : entre contradiction et complémentarité

Mélanie Collet, Silvester Ivanaj, Corinne Gendron

Abstract: Dans le contexte actuel de compétitivité mondiale exacerbée, les entreprises ont une pression croissante pour améliorer la productivité et réduire les coûts et le Lean management semble être la clef de la survie pour les entreprises. Parallèlement, il y a une demande accrue de la part des parties prenantes des entreprises de tenir compte de l’impact des activités des entreprises sur la société et sur l’environnement en mettant en place une démarche RSE. Malgré leur importance et leur coexistence les démarches Lean et RSE sont considérées comme complètement indépendantes et souvent gérées par des fonctions distinctes de l’entreprise. Dans cette étude exploratoire nous nous demandons quelles sont les synergies entre ces deux démarches. Pour répondre à cette question nous avons réalisé une enquête qualitative semi-directive auprès de douze cadres de sept entreprises ayant des expériences Lean et/ou RSE. Les résultats confirment l’existence de nombreuses synergies entre les deux démarches. Il en ressort que la RSE peut être considérée comme l’amélioration continue de la performance globale de l’entreprise, dont le Lean serait une première étape. Le Lean peut apporter à la RSE la méthodologie et la structure qui lui font
souvent défaut dans sa mise en œuvre, que ce soit au niveau de son pilotage global, de son reporting ou du management opérationnel sur le terrain. Aussi, afin de faciliter son déploiement et son appropriation, la RSE doit être déclinée, non seulement en objectifs « Corporate » globaux, mais également en objectifs opérationnels par fonction/métier de l'entreprise, en cohérence avec la stratégie globale, accompagnée des indicateurs de pilotage et des routines managériales adaptées. L'étude démontre que seules les entreprises ayant une culture de l’excellence et une capacité à se remettre en question et à s’adapter en permanence (résilience) peuvent mettre en œuvre une démarche RSE car celle-ci implique de repousser les frontières « traditionnelles » de management via l’évolution du contrat social et la notion de parties prenantes.

**Determination of Corporate Social Responsibility: Case From Indonesia**

Yusuf Barusman, Lindrianasari Lindrianasari

Abstract: The purpose of research is to provide empirical evidence of the factors that influence the extent of disclosure index of corporate social responsibility. Index of corporate social responsibility disclosure in this study is using the GRI G3.1 index, which consists of six main points; the direct economic influence, matters related to the environment, labor practices, human rights, social, and responsibility for the product.

The data of this study are using secondary data, obtained from annual reports of companies listed in Indonesia Stock Exchange. The sample used in the study were as many as 20 companies selected using purposive sampling. Observations are made during the period 2007-2013. In the observation period, the Indonesian government issued Act No. 17, 2007 that one of its content requires the company in Indonesia to allocate funds for the social and environmental responsibility.

The results of this study indicate that the ownership (stocks) government, the specifications of the company, and the size of the company become the best determination for CSR index. In addition, regulatory theory predicts that government involvement will encourage more companies adhere to the rules prevailing, successfully confirmed in this study.

Keywords: Corporate Social Responsibility Index (CSRI) Disclosure, Government Share, Firm Specification, Age, Size
Embodied & artful design for a creative and sustainable inter-practicing in organisations and leadership

Wendelin Küpers

Following a phenomenological approach, this contribution discusses possibilities of an embodied and artful design in relation to sustainable practices. In contrast or supplementing to design-thinking, and by following Merleau-Ponty’s philosophy, design of sustainable practices are seen as a situated, emergent process of bodily beings and dynamic, material, social and systemic embodiments (materio~socio~cultural) in which practices are inter-relationally and meaningfully enmeshed. Furthermore, embodied design of and in (sustainable) organisations is interpreted as artful process of a creative inter-practice. Finally, some practical, political, theoretical and methodological implications will be discussed.

Key words: body, embodiment, phenomenology, design, practice, leadership, art,

The rise and fall of Art Nouveau: (de)legitimation processes in creative industries

Amélie Boutinot, Sylvaine Castellano, Olga Ivanova

Abstract: Previous research has rarely looked at the combination between aesthetics and (de)legitimation. Herein, we examine the interactions between these elements in the light of the rise and fall of an art style - Art Nouveau. We employed aesthetic inquiry as a data analysis method, in order to explore how (de)legitimation happens through aesthetic issues. Our results present that legitimation and delegitimation can be considered as parts of the same continuum through the eyes of aesthetics, and that the delegitimation of aesthetic characteristics find its roots in their very legitimization. This paper suggests contributing to (de)legitimation literature through the aesthetic approach.

Keywords: (De)Legitimation, Aesthetic Inquiry, Art Nouveau, Creative industries.

Music and Sustainability: organizational cultures towards creative resilience

Sacha Kagan, Volker Kirchberg

Abstract: An inter- and transdisciplinary exploratory review of the intersection of music and sustainability, exploring how the social experience and practice of music may contribute to the cultural dimension of sustainability, points at key characteristics of resilience related to musical practices, which bear relevance for organizational cultures.

The emerging insights from this review suggest that the experience of, and especially the practice of music, hold potential functions for advancing cultural sustainability and cultures of sustainability, in
human communities and within single organizations. Generally, music is a double-edged sword that may advances cultures of sustainability through aesthetics of complexity, while music's emotional potential may instead be deployed to reinforce prejudice and simplifying worldviews. Within a human group, musical practice enhances group cohesion, and especially musical improvisation trains social creativity which is an important resource for organizational resilience.

Organizational diffusion of creative process developments – a case example from home care

Kajamaa Anu, Klaus-Peter Schulz

Abstract: The complex process of organizational diffusion of change and development is an underrepresented topic in theoretical and empirical research. The purpose of our study is to analyze the mechanisms for fostering and inhibiting organizational diffusion of change and development and to create a conceptual model for fostering these creative process developments. Theoretically, we particularly refer to the diffusion theory of the groundbreaking scholar E. Rogers. We enrich his theory with a dialectical, activity theoretical view focusing on contradictions. We analyze 13 encounters of home care clients and workers for which the data was collected through participatory observation and interviews in the clients homes. The diffusion activity is analyzed in regards to the implementation of a new innovative tool named mobility agreement which is developed to promote the clients’ daily mobility. The data analysis is illustrated by presenting two profound case examples from home care visits, one example fostering the diffusion of the mobility agreement and the other inhibiting it. The results gained are set in proportion to an analytical learning model central to activity theory. Our study illuminates the creative process of developing new innovative structures, tools and activity models, and the subsequent efforts to communicate and to diffuse these innovations at work.

Keywords: diffusion; organizational change and development; activity theory.

Art as Tool – Museum as Lab Concept development of a new value creation stream to co-create the cultural context for innovation for sustainable development

Dorothea Ernst, Charles Esche, Ulrike Erbslöh

Abstract: Innovation and change have been high up on the agenda of commercial, not-for-profit, government and local public organisations alike and are considered to be essential for our future. More recently companies have begun to wake up to the fact that current business models based on abundance of natural resources are no longer sustainable and fundamental system change is required. This is a fact that international sustainability research has emphasised for quite some time. In addition to this publicly funded cultural institutions witness increasing financial pressures due to stressed public budgets. Museums, concert halls, opera houses etc explore new ways to stay meaningful in a world with a highly dynamic ICT technology driven culture. This paper will introduce the meaning, some experiences and lessons learned for a new role for a museum of contemporary art that has been explored at the Van Abbemuseum in Eindhoven since 2004. The focus will be put on a business model innovation project that was executed in 2014, developing the idea “art as tool –
museum as lab” in the four steps: (1) Value Proposition, (2) Value Creation, (3) Value Capture and (4) Lead User test. This business approach provided a useful model to create a “learning by doing” setting. At the same time it helped to develop awareness for the importance of shared language and some common experience for effective co-creation. Moving to the next phase requires concrete co-creation projects and further research to understand the contribution that cultural institutions can and need to make to innovate for sustainable development at different levels. There is huge hidden value available in cultural institutions. A lot needs to be learned about how to surface and leverage it for the 21st century in a meaningful way.

Keywords: sustainability-driven innovation; experiential learning; co-creation, creativity, art as tool, cultural change.

Exploring and designing sustainable management by applying and embedding creative and playful modelling methodologies in a cross cultural context

Krista F-instad-Milion, Klaus-Peter Schulz, Sergio Janczak

Abstract: In the following we report about an interdisciplinary project between arts, engineering and business students, which acronym is called ARTEM (ARTEngineeringManagement) workshop. This ARTEM workshop initiates undergraduate students to Sustainability and Corporate Social Responsibility (CSR), by way of the ISO 26000 guidelines. It is built on a partnership with a regionally-based Small or Medium Enterprise (SME) which manufactures and exports “Made in France” top-of-the range cookware worldwide. It takes place in English thus attracting business, engineering and arts students from different cultural backgrounds keen on improving their organizational CSR strategy design and implementation as well as language skills. Students actively engage in developing CSR analyses and solutions for the SME which, without external support, would not be able to address such an ambitious program. Teaming host and international visiting students together foster cross-cultural comparisons of views, interpretations and solution finding. Students are encouraged to move from the abstract to the concrete through a playful modelling approach (tool-kit based serious game), reflecting results with the company. This live case workshop responds to the search for a unique experiential learning seminar by the participating institutions of the ARTEM collaboration in Nancy (under the leadership of ICN Business School) and Western University in London, Ontario.

The authors see the contribution of this paper by introducing the methodological approach and particularly the focus of embedding creative methodology in a curriculum which includes a direct interaction as a cross cultural team in professional practice. They also provide some first explorative results of the application of the methodology. The innovation of this ARTEM workshop is the unique combination of learning techniques that allow students to learn Sustainability and Corporate Social Responsibility (CSR). By having access to an ongoing real company situation, embracing a team teaching approach, promoting students’ cultural diversity through teamwork, and using metaphorical modelling methods and playful interaction through tool-kit based modelling, this session promoted student engagement and co-learning.
Study of Aalto University: is the “innovation university” creative?

Kalle J. Palomäki, Johanna Palomäki, Mikko Kurimo

Abstract: This study discusses Aalto University in Finland with the perspective of creative learning and work environment. The purpose of the Aalto University project is to build an “innovation university” through a merger of three universities in arts and design, business and technology. By means of the concept of the innovation university, creativity is strongly emphasized in Aalto’s strategic agenda. The study first shortly describes the Aalto project utilizing strategic documents and literature published about Aalto in critical scientific forums. The current situation of Aalto’s curriculum is analyzed using keyword searches in its curriculum through teaching material provided in Aalto’s teaching website. Of Aalto’s six different schools, the School of Arts and Business use creativity and innovation related terms most in their teaching material. Next, we will address examples of Aalto’s teaching utilizing interviews of three teachers that are known for cultivating creativity. As teaching and research should be connected, we also address the issue of Aalto as a creative environment through the fourth interview of an expert external to Aalto. While these teachers expend considerable efforts to foster creativity in teaching, they point out that there is much headroom to develop in fostering creativity in teaching at Aalto in general. As a particular challenge, it is pointed out that the potential of Aalto in multidisciplinarity is not currently utilized as well as it could. One interviewee also criticized the newly developed intense performance measurement culture and new forms of bureaucracy in Aalto and their potential negative effect on creativity.

Creative Business Days - IDEAS in Action

Marie-France Clerc-Girard, Kamel Mnisri, Christine Morin-Esteves, Alexandre Meyer

Abstract: Les Creative Business Days (CB Days) ont l’ambition de faire réfléchir et travailler ensemble, durant une semaine, les étudiants de 3 écoles de l’alliance ARTEM, ICN Business School, École des Mines de Nancy et École Nationale Supérieure d’Art de Nancy, sur la mise en place d’un projet original, créateur de valeur et réalisable, en lien avec l’Économie Sociale et Solidaire. La créativité et la responsabilité sont donc au cœur du projet qui permet aux étudiants, accompagnés par des tuteurs enseignants et issus du monde professionnel, de se familiariser avec la complexité de l’entreprise.
PARALELL SESSION 2

What Popular Music Can Teach: Blues as an Example of Sustainable Living to Renew the Conception of Business Life in Organizations and Business Schools

Sybille Persson, Bertrand Agostini, Paul Shrivastava

Abstract: As the link between sustainable development and art begins to shed a new light on organizational conceptions (Shrivastava, Ivanaj & Ivanaj, 2010), few studies deal with music and especially popular music in organizations and management studies (Prichard, Korczynski & Elmes, 2007). When music is considered in management research, it is most often to analyze music industry (e.g. Dewan & Ramaprasad, 2014) or to study music consumption behaviors (e.g. Weijters, Goedertier & Verstreken 2014). However, Korczynski and his colleagues have specifically dealt with the impact of music on organizations, particularly as far as employees and workers are concerned (Korczynski, 2004). On the one hand, music is considered as one of the major Arts. However is that also true for popular music? If music like all the other major arts is linked to the Western conception of beauty, it deserves to be challenged by the Chinese conception according to Jullien (2015). The Chinese conception of beauty is more life-oriented than the Western one which favors the ‘beautiful’ as a metaphysical concept that set up Western philosophy. Perhaps that is the reason why a popular music like the blues was once considered as the music of the devil and was therefore rejected by the Church. At this introductive stage we can summarize our conceptual interest for popular music by highlighting the gap between ‘popular’ and ‘classical’. When we speak of classical music, the word ‘classical’ echoes the Western conception of the beautiful (Jullien, 2015), in its semantic relation to ‘fine arts’ or ‘high arts’. To what extent can one consider that popular music is beautiful? Is it as much beautiful as classical music? If not, what are its possible aesthetic declensions (Gracyk, 2008)?

In this conceptual paper we will consider popular music as a specific relevant path of sustainability to connect art with everyday experience for ordinary people in the workplace and not for recognized artists and enlightened connoisseurs. Instead of focusing on popular music as a lever for engagement for employees in a sociological perspective linked to power and resistance as spawned by Korczynski (2007), we consider the teachings of popular music as a lever of sustainability for the management of all human resource in organizations. Our analysis will be based on 4 steps. Firstly, we tackle the elitist conception of beauty in the West based on a philosophical investigation. Secondly we analyze blues music as a popular art of living that helps one go through the entire path of life: not only the good and the bad moments but also the three levels involved in human life, body-mind-spirit in a manner close to the Chinese model (Hwang, 2012). Thirdly we propose implications for Business education and Business life in order to renew the creativity and sustainability paths in organizational life. We conclude by proposing some avenues for research, especially in Business education.
Assessment of Creativity in Project-Organized Group (POG) for Developing Sustainable Pedagogy in Chinese Universities

Chunfang Zhou

Abstract: This paper explores two research questions: 1) what are the drivers and barriers to students’ creativity in Project-Organized Groups (POG) in Chinese universities? And 2) what future efforts are needed to improve POG toward a sustainable pedagogy? Based on theories of sustainable education and creativity, empirical data was collected from two studies of students in POG. One study uses a questionnaire survey (n=126) and one uses qualitative interviews (n=15). The findings demonstrate that the drivers to creativity include the challenge of the task, openness, trust between peers, experts’ help, and group diversity, etc. However, some problems such as poor group management and students’ fear of authority, etc. are barriers to creativity. This implies that the need to restructure the relationships between learners in POG is key to managing Chinese cultural conflicts with creativity.

Keywords: Project-Organized Group (POG), Creativity, Sustainable Pedagogy, Creative Climate, Chinese Culture.

Arts-mediated critical management learning for health/social care in Japan

Takaya Kawamura

Abstract: There has been a growing concern for “management” among Japanese health/social care organizations, which are all stipulated to be not-for-profit, either government supported or private corporations. Since the end of WWII, the health care system in Japan has developed mainly in the form of institutional care at larger hospitals for acute diseases and injuries of a relatively younger population. They are now required to meet increasing and complicating health/social care needs of a rapidly-ageing population of 130 million, about 25% of which are now over 65 years old, and pressing governmental requirements for the cost containment and risk reduction.

Japanese health/social care organizations now face a wide variety of unparalleled management challenges of providing a massive amount of finely-customized, reliable, and low-cost residential care for the elderly with complicating multiple chronic illnesses/disabilities including rapidly increasing dementia. Visiting physicians, nurses, therapists, and rapidly-trained home-care workers with limited medical knowledge at smaller health/social care stations are expected to create urgently various new professional and managerial practices in close collaboration with medical professionals and therapists at larger public hospitals.

Facing these formidable management challenges, Japanese health/social care organizations now need a new type of management learning program that helps health/social care professionals and managers being liberated from the ingrained “logocentrism” (Derrida, 1976), from rapidly expanding “instrumentalization” and “managerialism” (Parker, 2002; Alvesson and Willmott, 2003), and from the unintended reproduction of asymmetric power relationship between the cared and the carer.
Such a program also needs to support health/social care professionals and managers to create new organizational practices by crossing boundaries (Engeström, 1999; 2008) between the cared and the carer, among professions and organizations, between institutions of healthcare and social care, and among sectors of governments, non-governmental public organizations, not-for-profit private organizations, and for-profit organizations.

Aiming at meeting the needs for new management learning program, the health/social care MBA program at Osaka City University’s Graduate School of Business has been accepting around 12 incumbent health/social care professionals and managers every year since 2009. Considering the mounting requirements for health/social care practices at not-for-profit organizations, the program has been developing the unique pedagogy for “critical” management learning that urges every student to plan and prepare for conducting a “developmental work research” at their respective organizations upon completing the program. Based on the author’s own “developmental work research” (Engeström, 1987; 1991) as the director and principal coordinator of the program, this paper aims at briefly explaining the policy and objectives of the program including its arts-mediated learning opportunities in terms of theoretical/pedagogical underpinnings, and conclude with a framework for the interim evaluation of achievements and limitations in 6 years.

In addition to seminars and lectures mainly on management “texts” in weekdays, the program has been implementing regular intensive workshops in the weekends so as to facilitate such “critical” management learning with the mediation of “arts” such as theatrical play, music, and LEGO bricks in collaboration with international management scholars and educators. In their discussion on the leadership practice and research, Barry and Meisiek (2010a) argue that while the craft is fundamentally about destinations, the art is fundamentally about departures. Taylor (2013) also argues that the art of leadership is essentially about liberating people from existing perspectives. Because all students of the program have succeeded in developing highly sophisticated “craft” in their respective fields of practice, they tend to seek for mastering “another craft” of management through the program. All the following arts-mediated learning opportunities have been attempting to invite these students to the departure for never-ending, critical explorations of new organizational practices in health/social care.

**Art as theoretical inspiration in management science**

**Corinne Gendron, Silvester Ivanaj**

Il existe un véritable travail de recherche hors du champ scientifique qui contribue au savoir et peut par conséquent nourrir la démarche académique. Dans cet esprit, ce n’est pas simplement les œuvres de fiction qui peuvent servir d’inspiration, mais l’art de manière plus générale autant dans sa forme que dans son processus ou sa signification. Malheureusement, l’œuvre tout autant que le travail de recherche dont elle résulte restent le plus souvent étrangers aux disciplines qu’ils pourraient nourrir (Boutet, 2010). Si Jung a utilisé l’art pour ses recherches sur la psyché, l’œuvre de Joseph Beuys reste étrangère à la philosophie, tout comme celle de Bach est absente des études en théologie mystique (Ibidem).
(...) [Si l’artiste (...) s’intéresse à des situations ou des problèmes de l’ordre de la conscience, ou existentiel, ou philosophique, ou encore politique et social (etc.), les spécialistes de ces autres questions (sociologues, psychologues, théologiens, etc.) n’en seront que rarement informés. (...)Une longue liste d’exemples, pris autant dans l’histoire que dans l’art actuel, pourrait (...) mettre en lumière l’invisibilité relative de telles recherches (Boutet, 2010).

Cette communication vise à explorer comment l’art peut participer au travail de théorisation en sciences sociales. Il puisera dans plusieurs œuvres pour réfléchir à leur apport potentiel pour penser le rapport à l’environnement et au développement durable.

**Créativité et gestion du patrimoine : L’investissement alternatif dans le Vin**

**Sondes Mbarek, Cristiane Benetti, Thibaud Sarron**

Abstract : La crise des Subprimes et celle des dettes souveraines ont, depuis 2008, affecté de manière significative l’ensemble de l’économie mondiale et des marchés financiers. Elles ont eu des conséquences désastreuses sur les supports d’investissements les plus utilisés (actions, obligations et produits dérivés). L’importante volatilité de ces derniers a d’ailleurs poussé les investisseurs à faire preuve de créativité et à diversifier leurs portefeuilles en se tournant vers de nouvelles formes d’investissement. Parmi celles-ci se trouvent les investissements dits émotionnels représentés par l’art et le vin. Ces investissements n’intéressent donc plus seulement les collectionneurs mais également les particuliers qui cherchent à allier passion et rentabilité, gestion de patrimoine et créativité. Cependant, ces deux supports d’investissement sont très différents. L’attrait de l’art semble reposer principalement dans ses bénéfices en termes de défiscalisation et non de la rentabilité de l’actif lui-même. L’investissement dans le vin semble quant à lui en adéquation avec les préoccupations des investisseurs particuliers telles que la préservation de leur capital et la diversification de leurs investissements, particulièrement en période d’instabilité économique. Ainsi, l’investissement dans le vin aurait une rentabilité supérieure à celle des actifs financiers traditionnels (action, obligations et produits dérivés) sans pour autant présenter les mêmes niveaux de volatilités que les actifs alternatifs habituels et tout en restant à la portée des investisseurs particuliers. La rentabilité de l’investissement dans le vin viendrait de l’offre limitée qui lui est inhérente : une production réduite avec une surface restreinte afin d’assurer la qualité du vignoble et une offre en diminution avec le temps à cause de la consommation des bouteilles. Néanmoins, si le vin est un actif financier à part entière, il ne faut pas perdre de vue ses spécificités et sa complexité. En effet, il s’agit avant tout d’un investissement passionnel, d’un actif tangible consommable qui, pour garder sa valeur, doit être stocké dans des conditions très strictes. Il est également tributaire des conditions météorologiques, des microbes et des accidents de vinification. Le but de cet article est de démontrer dans quelle mesure l’investissement dans le vin peut être une alternative à l’investissement dans des supports plus conventionnels. Nous étudierons tout d’abord les particularités du marché du vin, sa fiscalité et sa réglementation. Nous aborderons dans cette partie les facteurs à prendre en compte avant d’investir dans le vin à travers une analyse des avantages et des risques inhérents à ce type d’investissement. Nous nous intéresserons également aux différentes manières d’investir dans le vin : investissement dans la vigne (Groupement Foncier Viticole) versus investissement dans les bouteilles de vin. Ensuite, nous nous intéresserons aux différentes méthodes de calcul de la performance et du risque de l’investissement dans le vin ainsi que les différents
facteurs ayant un impact sur le prix d’un actif dans le vin et ce à travers une revue de la littérature sur ce sujet. Enfin, nous nous baserons sur l’étude des performances des principaux fonds d’investissement dédiés au vin en les comparons à celles des indices des principaux actifs classiques et alternatifs. Nous étudierons, entre autres, l’évolution des prix des grands crus afin de démontrer la rentabilité des investissements dans le vin.

Keywords : Alternative Investments ; Taxation ; Wealth Management; Grand Cru; ethical investment; Responsible Investment; Collectibles, Wine.

Towards a responsible research applied to rare earths for a sustainable development

Sébastien Bayon, Jean-Claude André

Abstract: Research in engineering sciences and associated innovation in the broad sense have to be connected to the market and in its adaptation to the management of innovation. In this frame, INSIS-CNRS, of which LRGP (Reactions and Process Engineering Laboratory) is part, offered to get involved in a context of Socially Responsible Research or SRR, which leans on charters emanating from research units. To explore this context, in a specialized frame, the authors got involved in an approach exploiting results of Life Cycle Assessment, of economic estimates (when it was possible) to trend models linked to the relationships between metal production, costs (rare earths particularly) and the energy required to produce them. The growing shortage of certain metals can lead to potentially high additional costs (both financial and energy costs) for metals chosen to be used in innovative techniques (energy particularly), restricting their interest for applications. This responsible analysis, element of SRR charters, can lead to new researches on more sustainable alternative processes.

Key words: Life Cycle Assessment, Renewable energy sources, Socially Responsible Research.

Light infrastructures and site-specific practices as revitalization engine of marginal areas

Daniele Vadala

Abstract: Even when heavy infrastructures such as bridges, roads, ports, airports, have at time proved scarcely useful or even disturbing to a given locale, a belief still prevails that this kind of infrastructures are by themselves crucial for the development of fringe areas. Many reasons prove the contrary: heavy infrastructural site works, as highway enlargements, remain open for many years provoking undesirable side effects as ecological unbalances, soil alteration, and prolonged interferences with the local networks. In countries with a heavily fuelled public system, it may happen that an infrastructure remains unconcluded or turns out to be useless after its completion. Furthermore heavy infrastructures rather than inspiring the creative potential of a place, tend to impact a given locale at the very end of the value chain of the building industry (quarries, loose materials) and with a very limited control upon the quality of the procedures adopted (Vadala” 2009, 2012, Cuda 2013). Then huge infrastructural works finally demonstrate to be largely unable to stimulate site-specific creative labor practices. Differently, this paper aims investigating the role that
a kind of „discrete“ or „light“ infrastructure can have in order to start a revitalization process of a marginal site. Several studies have demonstrated that light infrastructures, positively interfering with the wider „suprastructure“ can be easily scaled according to variable necessities (Jacobs 1984, Timmerenn 2006) and generating profits and interconnections at a local level, can give the spur to the creation of new industries to replace goods and services that the urban region was not producing at all (Elvin 2008, Jacobs, 2005, Blumenfeld 1955).

Investigating a safer and greener frother option for oxidized coal flotation

Akira Otsuki, Tamara Miller

Abstract: Occupational health and safety standards are constantly improving to keep workers and the environment safe. This results in the stricter guidelines on what hazardous materials are allowed to be stored and used in mine sites. As with most metallurgical processes, coal flotation uses chemicals to improve the coal grade and recovery. One of the main chemicals used for coal flotation is a frother methyl isobutyl carbinol (MIBC) which has a low flash point (F.P.) potentially allowing its vapours to make explosive mixtures with the air. This paper focuses on investigating a safer frother for oxidised coal flotation with still achieving similar or better recoveries, compared with MIBC.

Coal has been used as an energy source for a number of years and its usage is still increasing. This creates the need to process low grade/oxidised coals that have not been processed intensively. Once the coal has been mined, it can be classified into four size categories: coarse (+10 mm), intermediate (10 mm – 1 mm), fine (1 mm – 150 μm) and ultrafine (-150 μm) particles. To separate the coal from gangue minerals, processes utilising the density differences between the coal and the gangue for separation of larger particles while froth flotation is used for the fine and ultrafine particles. Main coal flotation reagents added to alter the properties of the coal surface and produce small stable bubbles are collectors and frothers, respectively.

Based on the higher flash points and low risk rating according to their safety data sheet (SDS), Dow Froth 250 (F.P. = 149 °C) and pine oil (F.P. = 78 °C) were selected to test against MIBC. Flotation tests were carried out at various frother dosages with/without diesel as a collector. The flotation concentrates were ashed to calculate the coal grade and recovery. During flotation, photographs of the froth were taken to be analysed visually for any correlations between the flotation performance and the froth stability.

After completing the test work, it was found that pine oil (F.P. = 78 °C) was a safer alternative to MIBC. It performed similar to MIBC in terms of coal grade and recovery satisfying both requirements for the project. Pine oil also showed the most promise for use as a stand-alone reagent without a collector potentially making for a safer work environment with less chemical storage. Dow Froth 250 provided the highest grade but with the low recovery due to small mass recovery collected as the froth.

From the visual froth analysis, the two main froth characteristics were able to identify. They were (a) clear windows forming on the top of bubbles and (b) localised bubble collapse indicating whether bubbles are under loaded or over loaded in the froth. After analysing the bubble size in the froth, it was found that having a consistent bubble size throughout the process was advantageous for
monitoring purposes in plant operations in addition to maintain the constant product. Such consistency was achieved with Dow Froth 250.

Keywords: Safety, frother, coal, flotation, flash point

PARALELL SESSION 3

The triple layered business model canvas - A tool to design more sustainable business models

Alexandre Joyce, Raymond Paquin, Yves Pigneur

Abstract: A creative approach to sustainability can be applied upon an organization's business model. We begin our research with the assumption that business model innovation that takes into account a triple bottom line approach will be more sustainable over time. We focus our research on the conceptual stage when business model ideas are generated, and more precisely its creative tools. Our goal is to support, with a structured canvas, organizations whom wish to innovate upon their current business model and create concepts of more sustainable business models. In this paper, we present and discuss the tool we have named the "triple layered business model canvas". We endeavoured to ensure that business models create, deliver and capture multiple forms of value by adding a second layer with nine environmental elements that follow a lifecycle approach, and by adding a third layer with nine social elements that follow a stakeholder approach. We share this new triple layered business model canvas and exemplify its use with a Nespresso case. In the end, we find new dynamics for analysis and new relationships for innovation. We conclude with limits and future research for more sustainable business model patterns.

Keywords: business model innovation, sustainable business models, business models for sustainability, triple layered business model canvas, business model canvas, business model design, triple bottom line, life cycle approach, stakeholder approach.

Stressing the Green in Green Supply Chain Management: a framework of key success factor dynamics

Eileen Murphy, Nuno Guimaraes da Costa

Abstract: This paper aims to explore the nature and role of soft management key success factors (KSF) to enhance environmentally sustainable supply chain management. Its purpose is to examine how each KSF functions individually and how they work together effectively. Although the current literature has revealed which factors are thought to be essential for improving the performance of internal environmental management systems, they have yet to be explored in the context of supply chain management. This paper will attempt to answer how these KSF behave within this particular sphere of activity which extends beyond the boundaries of the organisation and thus evokes new challenges for reducing the organisation’s environmental impact. We contribute to the literature by building a framework based on the relationships identified between the various KSFs and developing theoretical propositions for future enquiry.
Society and Materials, a series of regular seminars based on a dialog between soft and hard sciences

Jean-Pierre Birat, Andrea Declich, Sandra Belboom, Gaël Fick, Mauro Chiappini, Jean-Sébastien Thomas

Abstract: An informal community has regularly organized annual conferences in Europe since 2007, on the connection between core commodities like materials and society and societal challenges: they are called SAM (Society and Materials). The approach is trans- and multi-disciplinary. Thus, sociologists, historians, architects, political scientists and policy makers, engineers, material scientists, life cycle community experts, business people and philosophers come together each year in cohorts of about 100 people from Europe, but also Asia, America and Africa, to give 30 to 40 presentations. They are made available on the SOVAMAT website (www.sovamat.org) and are published in journals like Revue de Métallurgie, Metallurgical Research & Technology and Matériaux et Techniques.

Many kinds of materials are regularly discussed.

Until today, the conferences have produced about 350 communications, many of which have been translated into peer-reviewed papers.

These series of conferences were launched in order to address the complexity of technology evolution in the context of societal challenges. The intuition was that purely mono-disciplinary approaches would not be sufficient to address the future and that holistic methods like Life Cycle Analysis were still too narrowly focused to lead seamlessly to what was needed. Inviting separate communities to participate turned out to be quite popular and people have been coming back regularly and have attracted new players. The outcome is a mixture of disciplines speaking together, but also of practical proposals alongside methodological, meta- or ontological ones.

With the hindsight of 10 years of practical experience, it is clear that the scientific agenda in terms of methodology, which was set at the beginning of the adventure, has been achieved. The paths followed were somewhat different, more empirical and more imaginative, from the initial vision of the organizers: a cluster of approaches was explored, which turned out to be richer than an improved version of LCA and MFA. More-over, new issues have been raised, which make it likely that the initiative will continue indefinitely.

This experience can probably help others find their way forward.

Towards an exploratory study of the effect of moral imagination on ethical work climate: proposition of a model.

Kamel Mnisri, David Wasieleski

Abstract: The relationship between creativity and ethics is empirically underresearched. In this research, we decided to address moral imagination and ethical work climate as essential ingredients
and sub-sets of creativity and ethics. In this perspective we intend to study how moral imagination affects ethical work climate? To answer this question we will be looking at the impact of moral imagination on the dimensions of ethical work climate. Investigating the link between moral imagination and ethical work climate would be meaningful to understanding how an organisation can comply between the requirements of creativity and ethics.

Key Words: moral imagination, ethical work climate, creativity, business ethics.

Creativity in the economic turmoil: a review of the empirical literature

Jakoba Sraml Gonzales

Abstract: In this paper I review the empirical literature dealing with organisational creativity from economic turmoil. The review is based on the research question “How is economic turmoil an opportunity for organisational creativity?” The results of the review show that the current empirical data is limited. The majority of the studies included in the review report that organisational creativity occurs also during economic turmoil: creativities occurs out of crises and despite of crises. The studies, however, report also that certain supporting conditions need to be guaranteed in order for creativity to be legitimised and used. The implication from this is that the turmoil-triggered creativity needs to be recognised and managed in order to be a progress-enhancer. The paper concludes by starting a discussion about further research questions and proposes longitudinal studies of the creative processes in economic turmoil as a way to gain insight into the complex link between creativity and economic turmoil.

Keywords: Organisational creativity, economic turmoil, literature review.

Creativity and organisational learning as means to foster sustainability

Rodrigo Lozano

Abstract: This article argues that creativity and organisational learning can help to challenge the traditional Newtonian and Cartesian mental models and foster more sustainable societies. The recognition and acceptance of creativity by individuals, groups, organisations, and finally society can create new knowledge and metanoia. Creativity helps to break through the knowledge barrier of current reductionistic mental models, while learning helps to consolidate and institutionalise the new mental models. This is especially the case where learning that questions underlying assumptions and develops new theories and methodologies that constantly challenge the status quo for the present and the future, instead of mere reaction to immediate problems. Eventually, these mental models would need to be questioned by future creative thinkers in a continuous process. Thus, solving today”s problems with tomorrow”s ideas, and ensuring progress towards more sustainable societies. The paper takes the example of Gaia theory to illustrate how creativity can be institutionalised.

Keywords: Sustainability; creativity; organisational learning; mental models; Gaia theory; paradigm change
Creativity in Sustainable Design within a Society of Risk Management

Carmela Cucuzella

Abstract: A question that often arises when requirements of sustainability are sought in design projects is whether creativity has any place in the design interventions. Whether the perspective for exploring proposals of unsustainable situations is a short, medium or long-term perspective, designers, as producers or culture strive for the creative process in all their projects. Yet when sustainability is a rigid requirement, designers often resort to methods or tools for evaluation, specifically to see where their design interventions would be most instrumental. In today’s society obsessed with risk management, constantly trying to predict the risks associated with our environment, the economy, our societies, etc., can designers liberate the design process from such instrumental forms of thinking and break open the thinking process far beyond that of intervening at these specific points of weaknesses in existing products, services, buildings, or spaces? The international discourse related to sustainable development is embedded in a risk management paradigm that valorizes a preventive approach for addressing the unsustainability crisis. This implies that the design intervention is meant to appease the many unsustainable symptoms. This paper seeks to highlight the importance of a variety of temporal and spatial design approaches for achieving sustainable creativity. By thinking outside the boundaries of the given problem, design for sustainability has the capacity to rethink the social and cultural assumptions embedded in the everyday. This process of reimaging a different future rather than focusing only on the redesign of more eco-efficient artefacts may be one entry point for introducing creativity in design for sustainability. This paper will present a series of design projects to illustrate the difference in thinking and outcome when design for sustainability is thought of in these varying temporal and spatial perspectives.

Keywords: design for sustainability, innovation levels, creativity, prevention, precaution, risk society, risk management, early stage designers.

Signalling for Sustainability: An Affective Sensemaking Process for Generative Change within Organizations

David Wasieleski, Nuno Guimaraes da Costa, Olga Ivanova

Abstract: The purpose of this paper is to integrate research and knowledge from the sensemaking literature and signalling theory to offer a process model of generative change toward sustainability strategies. Our approach in this paper is normative, as we strive to inform managers how to articulate a sustainability agenda to the definitive “intra-organizational” stakeholders. Our model taps into humans’ innate concern for sustainability through their elicited affective responses to certain signals. Promoting creative change among internal organizational stakeholders could be facilitated by enabling an affectively driven sensemaking process through which the proper utilization of signals laden with symbolic logic for sustainability is initiated.
Socially Responsible Research, but whom to trust? The example of a Renewable Energy

Sébastien Bayon, Jean-Claude André

Abstract: The development of new technologies crossed more and more by means of inquiries to the public. At the same time, the researchers should be more and more led to explore socially responsible research principles to take into account aspects like supplies, risks and social perception of the systems which they allow. A certain number of data was calculated from Life Cycles Analysis, allowing confrontations in relation to citizen opinions expressed in the case of the Aeolian energy system. The work linked with this paper agrees with some published results, but also highlights a trend of certain scientists coming from the “hard” sciences to assert opinions located outside the techno-economic reality. This result does not meet for the general population which agrees better to not know. This unforeseen situation asks then the important question of links to be developed between science, technology and society.

Keywords: public debate, precautionary principle, uncertain risks, social perception, expertise.
When Biological Analogies Miss Sustainability

Jean-Pierre Chupin, Carmela Cucuzella

Abstract: Whether seeking out forms, ideas, principles, concepts or images, biology appears as a model and an inexhaustible source for designers at various scales. What do designers strive for when they wave the flag of life and what do they think they will find in the sciences that make it an object of knowledge? Conversely, may we say that biologists demonstrate an equivalent and reciprocal appetite for contemporary architecture? A comparison of the contrasting points of view of three historians namely, Peter Collins, Philip Steadman and George Hersey, whose works span from 1960 to 2000, permits us in the first instance to illustrate the different positions provoked by the influence of biology on ideas in architecture, be that with regard to adhering to, or opposing the phenomenon, or in terms of propagating it in all forms of construction. From the simple formal reference to animal or vegetable kingdoms, all the way to the more unusual transfers of biological and genetic models, the practical and theoretical consequences of these interdisciplinary movements are numerous and particularly poorly understood on a historical level.

Keywords: Biological analogy, Architecture, Design, History, Collins, Steadman, Hersey.

When Creativity Meets Practice of Sustainability: A Systems Approach to Analysis of a Danish Renewable Energy Project

Chunfang Zhou, Kathrin Otre-Cass, Andrew Cass

Abstract: This paper focuses on the research question: how does the interplay and cooperative efforts between diverse actors in practice of sustainability influence the development and application of creativity? Regarding creativity as a pathway to managing sustainability inspires this angle theoretically. To do so we are using a systems view and examine creative behaviors through the interplay between three dimensions including domain, field and individuals. The analysis of a Danish renewable energy project called Winds of Change (WoC) reveals the challenges and dilemmas of developing the WoC project in practice. Using this example we conclude that a better sustainable world requires a creative culture where the different actors should contribute to their cooperative efforts in a co-creation process.

Keywords: Creativity, Social-cultural System, Sustainability, Renewable Energy

Evaluation of ideas generated during creative workshops

Alex Gabriel, Mauricio Camargo, Davy Monticolo, Vincent Boly, Mario Bourgault

Abstract: Creativity workshops (i.e. brainstorming and design jams), are been increasingly used by firms to explore new design spaces and find original ideas of new products or services. Then, the evaluation of ideas resulting from these creative processes is a key activity for a firm, as it is basement for time and financial investment decisions. The evaluation and the decision induced have
larger impact than the creative process itself; it conditions the overall innovation process. The present paper proposes an evaluation approach, supported by multi-criteria decision-making analysis tools. This evaluation process pretends to assist the decision-making by questioning success criteria to take into account the firm’s context and priorities, and avoid bias from the decision-maker for the final decision. Implementation of this approach during creative workshop validates the interest of this type of formal evaluation.

Keywords: multi-criteria analysis; creative workshop; idea evaluation; creative process

Can Creativity Thrive Within Virtual Teams?

Philippe L. Davidson

Abstract: This paper investigates the common concern among managers that the physical separation of workers within a virtual team may hinder their creativity. We investigate some of the more popular creativity-enhancing techniques to assess whether the limitations imposed on virtual team members through their use of telecommunications and collaborative work tools might affect the effectiveness of these techniques. These techniques are designed to be used individually, by groups or by a virtual community. In all of these contexts, the physical proximity of the participants is in fact not necessarily the advantage that it is claimed to be; moreover, the environmental and interpersonal constraints that prevail in a co-located work environment may even hinder the workers’ creativity. Therefore, we suggest that virtual teams and their members may prove to be more creative than physically co-located ones. Furthermore, the work practice as a paradigm may help leverage new trends in virtual community-based innovation.

Creative Evidence-Based Design and Transformative Service Research Application for Achieving Sustainable Healthcare Services: A Developing Country Perspective

Sara Hamed, Noha El-Bassiouny, Anabel Ternès

Abstract: Patients look carefully for detailed information pertaining to their expectations before selecting a healthcare service provider. In order to meet these expectations and achieve patient wellbeing, healthcare service providers should shift their focus away from functionality to more sustainable designs for their hospital servicescapes. The importance of the design of the servicescape in creating a healing environment for patients has been shown through Evidence-based Design (EBD) research. The rising importance of consumer wellbeing and sustainability is further shown in Transformative Service Research (TSR). The aim of this study is to bridge the gap between EBD and TSR by combining their aims and outputs to develop a future servicescape design for private hospitals in developing countries. The application of this study will be implemented on Egypt because of the deterioration of its healthcare service provision in the private and public sectors.

Keywords: Evidence-based Design; Transformative Service Research; Hospital Servicescape; Consumer Wellbeing; Sustainability.
Can innovative reforms and practices resolve financial distress efficiently?

Nirjhar Nigam, Afef Boughanmi

Abstract: Recent years have witnessed a phenomenal upsurge in the number of corporate bankruptcies. The vulnerabilities which were lying dormant within contemporary bankruptcy regimes suddenly became apparent, causing concerns within the international corporate community. Consequently, researchers, practitioners and policy makers from all over the world got actively engaged in emphasizing the importance of efficient bankruptcy reforms for promoting rescue culture. The primary objective of an insolvency framework should be to provide quick, transparent and cost effective solutions for the resolution of financial distress and promotion of a synergetic environment conducive for the proliferation of healthy debt repayment practices, increased trust factors between creditors and debtors and a better survival rate for viable businesses. In this paper we present a qualitative review of various insolvency reforms introduced in many countries, between 2005 and 2013, for the efficient resolution of financial distress. We will also delve into a discussion of the prevalent practice of resolving distress through Court (formal procedure) or through out of Court (private workouts) settlements, the supporting related literature and the limitations involved in the process. Overall, our effort has been to summarize and synthesize empirical data and highlight the strengths and weaknesses of the proposed insolvency reforms to provide better understanding of prevalent ways of resolving financial distress.

Keywords: Bankruptcy law, financial distress, out of court settlements, London approach, Liquidation, Reorganization.
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