



FUTURE OF THE CONSUMER SOCIETY

28–29 May 2009

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BOOK OF ABSTRACTS

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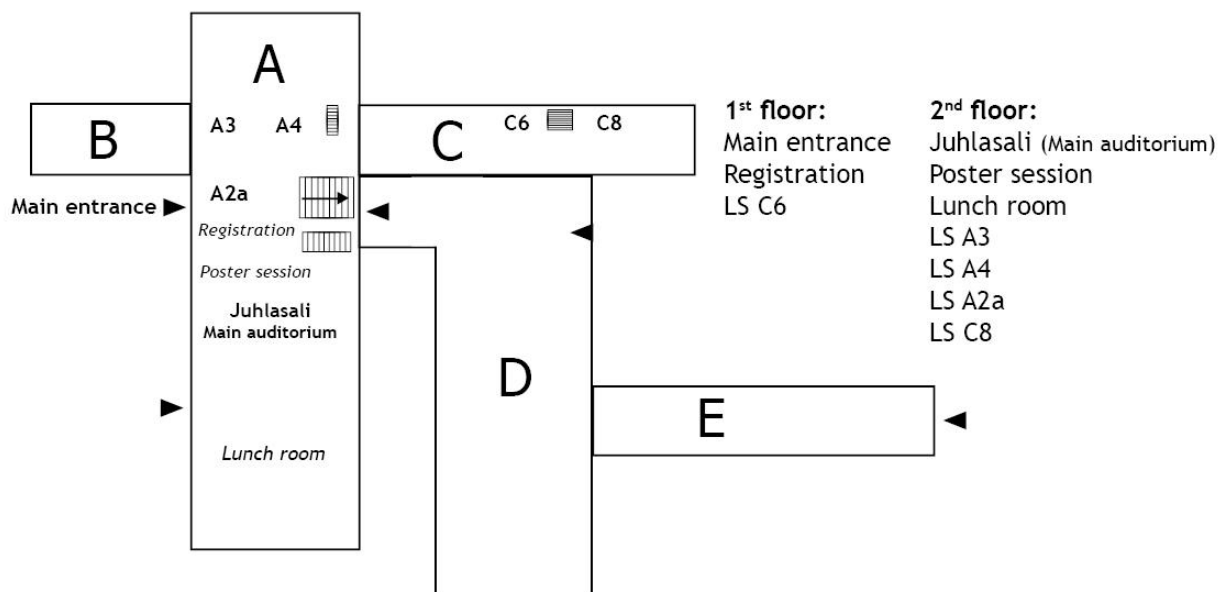


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Sessions during the Conference

Time	Thursday 28 th	Friday 29 th
10.00		Sessions C 1-4
11.00		Sessions D 1-4
12.00		
13.00	Sessions A 1-5	
14.00	Sessions B 1-4	Sessions E 1-4

University of Tampere, the Main Building



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THURSDAY 28th MAY

SESSION A.1:
SPECIAL WORKSHOP: USER DRIVEN INNOVATION IN THE CONSUMER SOCIETY
– THE FORGOTTEN SIDE OF THE INNOVATION SYSTEM?

Chair: Professor Saara Taalas, Turku School of Economics, Centre for Research and Education, Media
Venue: Lecture room A2a

While “user driven innovation” has become the buzz phrase in the discussion of the innovation practices in the post-industrial market place, it is time to revisit the concepts of “user” and “customer” for their place and space in the innovation discussion. In media production and consumption this shift has already taken place but in the creative economy the use of creative contents, platforms, and working practices are getting widespread, turning most goods and services into concept and formats. While consumers are asked to get involved and to interpret, it pushes the change further in the economy.

The shift from passive user-customer role is rapidly moving towards active roles of participation and parenting in innovation. What does this mean? How is this move challenging the roles of innovators and innovation networks in new ways? These challenges may not concern only the formal companies, user communities, and individual consumers, but also the policy actors, legal systems, and society as a whole. Does it challenge the status quo not only in innovation but also in wider context?

This special workshop is dedicated to the discussion of these questions from the perspectives of organizing practices involved in user driven innovation, their future, and their innovation policy implications. The workshop will present several contemporary cases of user driven innovation from the innovators, companies, policy makers, and consumers’ side. What is the future if, indeed, the user-consumer will gain more than a place in the formal speech agenda, and shift towards a more active and emancipated role as the forgotten side of innovation system?

Discussion topics include:

- Convergence of market production and evolving uses in the markets – the role of user-consumer-producer of tomorrow?
- User-driven innovation from policy perspectives – challenges on to traditional view on innovation systems
- New forms of innovation networks (crowd sourcing, open innovation, creative commons, fan organization) – challenges to immaterial property systems

This special workshop is arranged in co-operation with Turku School of Economics, Media Futures Network and the Creative Economy Development Initiative by the Finnish Ministry of Labor and the Economy.

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SESSION A.2: DELPHI

Delphi session will address the methodological choices in the use of Delphi method. E.g. papers will discuss the problems of the selection of the experts and the role of expert in the process. Also, the problems in the case of combining qualitative and quantitative information during Delphi process will be addressed.

Chair: Adjunct Professor Petri Tapio, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room A3

Qualitative and Quantitative Information in Delphi Processes – Unholy Marriage?

Petri Tapio¹, Markus Vinnari² & Vilja Varho¹

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This paper analyses the difficulties addressed when combining qualitative and quantitative information in different rounds and when reporting the results in a Delphi process as scenarios or images of the future. The paper draws material from five different Delphi processes conducted in Finland 1999–2008, where the authors have been involved as researchers or advisors. Based on a literature review the article presents some examples of problems that previous projects have had in the combination of these different types of materials. The five case studies are analysed in more detail and the ways that the issue was overcome in these processes are presented. Solutions tend to lead to over domination of one material type over another. Finally, the paper gives recommendations for tackling the problems in the case of combining qualitative and quantitative during a Delphi process.

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How to Diversify the Perspective in Expert Methods? – STEEPV-Delphi

Markus Vinnari¹ & Anna Kirveennummi²

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This article analyses two of the problem areas when utilizing expert methods, namely selection of the experts and the role of expert in the process. This paper draws the material from literature analysis and from the several expert processes conducted by the authors. One particular expert process, where more than thirty experts were selected in a Delphi-panel is presented as a case study. During this process STEEPV (Social, Technological, Economic, Environmental and Political) expertise areas were selected as a starting point for the criteria for choosing the panel members. This selection was done in order to diversify the perspectives towards the issue in hand. Later part of the paper analyses the perspective that the selected panel members took in the process as they presented some ideas as experts and some as ordinary consumers.

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SESSION A.3: ENVIRONMENTALLY SIGNIFICANT CONSUMPTION

Environmentally significant consumption session will try to find solutions to environmental problems, such as the climate change. These problems are addressed e.g. from the view point of Finnish homes and the energy saving.

Chair: Project Manager Marileena Koskela, Turku School of Economics, Finland Futures Research Centre

Venue: Lecture room A4

Potential for Decrease in Climate Change Impacts in Typical Homes in Finland

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It is evident that in most apartments and private houses in Finland there is a large potential for decrease in climate change impacts. This paper compiles and uses data about apartments and houses and their electrical appliances, energy use, furnishings, and waste sorting in Finland. It also takes into account several Finnish projects of eco-efficient housing and their real climate change 'savings' and the feedback from people. It calculates estimates of climate change impacts in different types of 'typical homes' as well as in 'ecologically sound homes' in Finland, which follow the different guidelines given to spare energy and decrease climate change emissions. It is evident that from a technical viewpoint, a household can rather easily decrease climate change impacts by 0.5-1 tons of CO₂ equivalents per person and year, but for a larger decrease a number of different changes in habits or investments like a soil heat pump or controlled ventilation and heat recovery are needed. Finally, the paper makes some estimates of the potential for decrease in climate change impacts in the existing apartments and houses in Finland, considering also how challenging the different changes are from technical, economical and social viewpoints.

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A Models for 'Wishful Thinking' in Environmental Problem Solving

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At its core, environmental problems are multilayered and complicated; therefore, it may be assumed that effective solutions will need to embrace high levels of complexities and interconnectedness. This paper describes a design practice, provisionally titled "eco-future design", which works by enlisting preferred ecological future narratives and myths as a means to generate solutions to environmental problems. This model is still in development. It builds on preferred futuring models from Lawrence Lippitt, Marvin Weisbord, Sandra Janoff and Buckminster Fuller, and employs two contemporary case study scenarios from Cradle to Cradle and Transition Towns to help provide examples typify and explicate this emerging practice.

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Gatekeepers Changing Consumer's Behaviour in Energy Consumption

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According to the surveys, 90 % of the Finns are concerned about climate change and 80 % are ready to take personal action in order to fight it. However, changing people's behaviour and reducing energy consumption has proved to be more difficult than the attitudes or technical possibilities would imply.

When analysing the decisions that affect energy consumption, we noticed that in different situations of life the decisions are of different scale. Most of us make routine decisions, which have dismal impact but are motivationally important in low-energy lifestyle – typically the question of whether to take a plastic bag while doing groceries. On the other hand, there are once-in-a-lifetime decisions (e.g. choosing the location of one's house) that set the level of one's energy footprint for years to come.

When analysing energy decisions further, gatekeepers emerge: professions, peer opinion leaders and service provider organisations that direct consumers' energy choices. However, many potential gatekeepers do not see themselves as actors in the energy question. Salesmen in a hardware store or menu designers in canteens do not consider themselves gatekeepers of energy saving. Yet these specialists define choice environments in which consumers make important energy decisions.

Until recently the focus of the research has been on depicting past changes in attitudes and behaviour or assessing effectivity of applied, but typically rather limited political measures. In years to come the emphasis should lay on studying the means for turning the positive attitudes into energy-conscious consumer choices. This study identifies groups at stake in influencing those choices and analyses measures for activating these groups into energy gatekeepers. The aim of the study is to enlarge the scope of persons and organisations that are considered to be actors in the field of energy saving.

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SESSION A.4: FUTURE OF THE SOCIAL MEDIA

Future of the social media is discussed from the view point of media environment and consumption, change in media demand, virtual consumer communities and prosumers.

Chair: Professor Sirkka Heinonen, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room C6

Future with Social Media: a Challenge for Paper

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Social media applications will take a growing part in people's media life in the future. So far, social media applications have been introduced mainly in the World Wide Web or as mobile applications (e.g. MySpace, Facebook, Twitter, Jaiku). Will the print media or paper products have any role in the world of social media? And what kind of a role could this be?

This paper presents results of a futures study which produced scenarios for media environment and consumption in 2025. The main emphasis of the study was on the future role of print media in the changing media environment. A qualitative approach was chosen for the study and the data for the composition of scenarios consisted of 13 interviews with researchers in Finland and in the University of California, Berkeley. In addition to the scenario method, the following tools were used in the study: STEEP-analysis, Futures wheel and Futures table.

The strengthening role of social media appeared in almost all the scenarios. A threat for the print media is that interactivity and sharing become so integral requirements for a satisfying media use experience that traditional print media cannot find their audience. The challenge for industry decision makers and practitioners is to meet the changing requirements. New product concepts, working processes and business models for printed paper products need to be found. This presentation also shows examples of such product concepts developed by KCL, which combine print and electronic media in social media applications.

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The Changing Demand for Media Products

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The number of media products is growing rapidly and companies are altering their existing products in order to meet the demand of their audiences. Demand for media products is changing because the motives for media use and situations media is used changes. There are also some transformations in the society and consumption that transforms the audiences need and wants. The aim of this paper is to gather all these changing elements of media demand and analyze their impact. This study is based on empirical time series data and interviews of research managers in Finnish media companies. There are several factors affecting media demand for example: reforming social groups, peaceful mornings are disappearing, multitasking grows, entertaining demand goes through all genres etc. The consequences for media groups are considered separately and analysed by futures tables and scenarios.

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Professional Journalism in Transition: Probing Possible Futures of Prosumerism in Journalism

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Professional journalism is undergoing a radical transformation driven by social media. Prosumerism is one of the main factors of change. It means the growing fusion of production with consumption. The term was first brought to public by the futurist Alvin Toffler in his book *The Third Wave* (1980). Toffler envisioned a future where users would conjoin to create products to meet their demands. Since then, the phenomenon has emerged as a trend that is already having a major impact on e.g. media industry, accelerated by digitalisation. Prosumerism has also come to refer to the mixing roles of a professional and of a consumer. A third use of the term emphasizes the combination of a non-corporate producer and a consumer. Most notably the rise of social media is shifting the balance in mainstream media, suggesting several possible implications for journalistic practices in the future. This study explores the images of the future regarding prosumerism in mainstream media among media futurists and media experts. Four backcasting scenarios formed upon a two-round computer assisted Delphi-study form a basis for reflecting on possible futures in this rapidly changing field. The interconnections between journalism and futures studies will also be dwelled upon as regards goals, approaches and applicability of methods.

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The Revolution of Brand Marketing: The Era of Virtual Consumer Communities

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This research paper examines virtual communities developed around a specific brand in order to create a better understanding of how these kinds of communities could be utilized in the context of brand marketing and what future challenges they bring for marketers. Extant literature was used to recognize ways of attracting visitors to a virtual brand community and managerial activities needed in maintaining a flourishing community. Based on the findings a theoretical framework was constructed to illustrate the general operational logic of a virtual brand community. An empirical research was conducted to confirm and measure the key relationships behind the framework.

The theoretical foundation of this paper lies on a variety of journal-level articles and relevant marketing literature. The empirical data was collected from four distinct virtual brand communities of two separate brands. As the objective of the thesis was to find generalizable evidence for the proposed hypotheses, the brands were chosen from altogether different industries. The analysis of the data was undertaken by utilizing structural equation modeling as the main method. One-way analysis of variance and correlation analysis were used as supplementary analysis methods.

The analysis of the empirical data found support for several of the proposed hypotheses. The following positive relationships were confirmed by the structural equation modeling.

1. Bonding to community loyalty
2. Bonding to perceived usefulness of electronic word of mouth
3. Active participation to bonding
4. Passive participation to community loyalty
5. Electronic word of mouth to brand loyalty

The relationship between operator-imposed control and community loyalty was examined with the use of one-way analysis of variance and correlation analysis. The results indicate that the controlling activities of a community operator can have a negative impact on the members' loyalty to the community.

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SESSION A.5: SUSTAINABLE CONSUMPTION

Sustainable consumption session tries to find policy recommendations for sustainable future. Also, the issue of environmental learning is addresses from the point of view of sustainable consumption.

Chair: Professor Hanna-Leena Pesonen, University of Jyväskylä School of Business and Economics,
Corporate Environmental Management

Venue: Lecture room C8

Down-to-Earth Economy – The Vision of Sustainable Consumption and Production Discourses

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The article ponders the discursive dimensions of sustainable consumption and production (SCP) by analysing interviews with Finnish SCP stakeholders. Sustainable consumption and production is a topical concept as national SCP programmes have been drafted by several European countries and also EU published its SCP action plan in 2008. What is the contribution of the SCP concept compared to, for example, the general sustainable development debate?

To shed light on this question, 20 interviews were conducted with experts and stakeholders who were closely involved in Finland's SCP committee work. The analysis suggests that sustainable consumption and production can be a useful concept for discussing economy in a down-to-earth manner. It provokes debate on the relationship between welfare and economy in high consumption societies: Is economic growth making us happier? What more ecologically benign consumption and production patterns would mean in practice? And is SCP basically about promoting the growth, changing its quality or ceasing it altogether?

The interviews reveal that addressing products, needs and the behaviour of economic actors in an integrated manner may provide valuable insights about the key challenges of a consumer society. A critical point is, however, that SCP debate is more concentrated on the needs of the consumers than on the needs of the poor, the initial focus of the Brundtland report (1987). Moreover, issues such as animal welfare, technological risks and social equity seem to be eclipsed particularly by ecological concerns. Focusing attention at consumption enriches the mainstream environmental policy agenda. Still, ideas on how to really address consumption related phenomena such as the rebound effect seem to be a bit undeveloped. A risk remains that excessive burden is placed on the shoulders of individual consumers with little demonstrated capacity to bring structural change.

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Policies to Promote Sustainable Consumption: Framework for a Future-oriented Evaluation

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Consumption is a key lever to attain a more sustainable development. Unsustainable consumption patterns are major causes of global environmental deterioration and inequitable patterns of

development between the North and the South. Following the lead of major UN bodies, national governments are today active in developing and implementing a 10-year action programme for sustainable consumption and production called the Marrakech process.

Policy makers face many uncertainties when attempting to steer consumption patterns in a more sustainable direction. These include uncertainties about how policy instruments influence consumption patterns, due to complex interdependencies between individual actions and the framework conditions influencing consumption. There are even more uncertainties about the impact of changes in consumption patterns on the environment, society and economy. An assessment of such impacts must account for the fact that consumer action is interlinked with the dynamic activities of other market players and the path-creating effects of technologies: the consumer is only a 'co-actor' within systems of consumption and provision.

Our paper presents an interdisciplinary conceptual framework for the evaluation of policies to promote sustainable consumption. Firstly, from a policy science perspective, instruments and governance mechanisms to promote sustainable consumption are identified and the conditions for their successful deployment are analysed. Secondly, a consumer studies perspective is employed to identify three pathways for policy influence: direct influence on the consumer, or via the market environment of the consumer, or via the social and physical environment of the consumer. Finally, the policy analysis will be linked to an elaborated framework building on material flow analysis (MFA) and scenario-building to determine the total impact of these instruments on environmental, social or economic sustainability, including impacts that are influenced via production patterns. Such evaluation is crucial for policy makers to select effective and equitable policies for the future.

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Extending EE/ESD from Awareness Creation and Ethical Action to Change Orientated Learning in Relation to Sustainability Practices for Sustainable Consumption

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Low literacy levels, a lack of knowledge, and high drop-out rates associated with the relevance of schooling, in South Africa, have been highlighted in recent research. In addition, the data gathered in a recent eco-school survey indicated that environmental educators seldom undertake activities that involve formal reading and writing as few knowledge resources that directly address this are available.

This paper reports on a resource development research project that is exploring some of these issues and how environmental learning can be more centrally constituted in formal education and the curriculum. The project is centred on biodiversity and change orientated sustainability practice within a warming world. A series of handprint resource books have been developed that explore sustainable consumption practices. Examples include, growing ones own food, making healthy bread and exploring effects of supporting particular practices. The paper will explore the educational theory informing these resource books and how they have potential to be adapted for a wide variety of contexts, for example, faith based and rural communities. The books have been designed to provide a coherent learning experience, based on a start up authentic story, key knowledge resources, enquiry investigations, action projects and deliberation exercises. They are focussed on improving agency and are about creative awareness i.e. exploring issues and possibilities within one's local and global context.

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SESSION B.1:
WORKSHOP: USER DRIVEN INNOVATION IN THE CONSUMER SOCIETY
– THE FORGOTTEN SIDE OF THE INNOVATION SYSTEM?

The session B.1 continues from Session A.1 (see page 4).

Chair: Professor Saara Taalas, Turku School of Economics, Centre for Research and Education, Media
Venue: Lecture room A2a

SESSION B.2: SCENARIOS

In the scenarios session, research papers present different ways to use scenarios in the planning of the future. Scenarios have been used to plan the future of reading in Germany and to plan generic marketing.

Chair: Adjunct Professor Petri Tapio, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room A3

Coffee Stains on Yellowed Touchscreens? - The Future of Newspaper Reading in Germany

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Our consumption patterns change radically. The choice of products is growing, there is not only one kind of cookie we can choose from, there are plenty. So what is it going to be? Digestive cookies, chocolate-covered cookies, organic cookies, homemade cookies or no cookies at all?

Cookies are just one example but they are symptomatic for a continuously changing process of consumer re-orientation and value changes. This is also valid for the reading behaviour of people. In Germany, different experts argue that reading in general is on decline and becoming less popular, especially amongst younger target groups. In a recent survey conducted by the German Ministry for Education and Research, 25 % of all Germans stated they have never read printed books.

As our research findings show, the situation is quite different and we argue that people just tend to use alternative channels to read books, articles or news and that a noticeable shift from longer, in-depth texts to smaller, savvier articles is observable. A shift that was recently entitled by wired.com as "snack culture".

In order to assess the current and possible future of reading in Germany we conducted a Delphi-Panel and further qualitative empirical basic research between October 2007 and December 2008 for Deutsche Telekom Laboratories and Berlin Institute of Technology. Taking up this "snack culture" trend, these R&D Institutes are currently working on the development of personalized news services on flexible screens and touch based multimedia devices such as Apple's iPhone.

This paper pursues two different goals: One is to present the most relevant findings of our research regarding market acceptance and future potential of personalized ePaper services and thereby give practitioners in the field a recommended course of action. Furthermore, we provide the reader with an idea of what the future of reading could look like.

SESSION B.3: ENVIRONMENTALLY SIGNIFICANT CONSUMPTION

The second session of environmentally significant consumption addresses the topic from the point of view of private consumers. E.g. the gap between attitudes and actions, the environmental impacts of private consumption and the consumption patterns will be discussed.

Chair: Project Manager Marileena Koskela, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room A4

Strategies for Coping with the Environmental Challenges of Everyday Life

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The environmental question lays huge demands for the individuals in their everyday life. Although people are environmentally conscious and take environmental issues in consideration in many ways, the lifestyles of Finns are far from being ecologically sustainable. People are socialized to reach for ecologically sustainable lifestyle, yet it is not achievable with reasonable effort. This is not just political problem, but also a personal dilemma.

I have analysed environmental challenges of everyday life by interviewing 17 family members living in Helsinki. The in depth data reveals different environmental mentalities, regulative principles that structures the way people deal with environmentally friendly behaviour in everyday life.

In my presentation I will concentrate on the 'gap' between attitudes and behaviour and outline strategies people create in order to overcome - or at least cope with - the contradictions and ambivalence in behaviour.

Ritualism is a strategy implying people put their faith in the small mundane practices, but at the same time avoid considering deep changes in their lifestyle. 'I have done enough' strategy stresses the 'green' efforts done. The felt contentment caused by the 'noble acts' does not leave space for critical thoughts about whether it really is enough.

People also use compartmentalisation strategy. They do change their behaviour, but 'keep green reflections out of certain practices'. People having post-material mentality find it easy to resist purchasing commodities, but ignore the indirect environmental consequences from activities that offer mental experiences.

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Environmental Impacts of Consumption in Finland

Ari Nissinen¹, Sirkka Koskela¹, Tuomas Mattila¹, Jyri Seppälä¹, Ilmo Mäenpää² & Juha-Matti Katajajuuri³

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The purpose of the study was to assess environmental impacts of private consumption in Finland. Environmentally extended input-output (i/o) modelling was used to determine impacts pertaining to consumption commodity groups, using i/o table of the year 2005 with 151 industries, 918 products, and 43 classes for consumption (i.e. COICOP 3 level). Life cycle impact assessment methodology with mid-point

approaches was used to determine environmental impacts like e.g. climate change, eutrophication, and acidification. Housing, food and operation of personal transport (i.e. mainly car drive) are three major causes in many of the impact classes. Looking for climate change impacts, the three classes cover over 60% of the total impacts of consumption. Quite surprisingly, such often focused commodities as clothing, footwear and furnishings altogether cause much less than 10%. Looking at impact intensities, i.e. climate impacts per Euro spent, the consumption commodity groups related to electricity and fuels, car drive, food, transport services and non-alcoholic beverages have the highest values. The lowest values are seen for communication services, social protection, insurance, education, and recreational and cultural services. When classifying and combining the commodity groups so that they reflect the purpose of the purchase and use, and taking into account that e.g. electricity and car drive contribute to several purposes, housing and food are the major causes for climate impacts, both covering around 30% of the impacts of consumption. Respectively leisure causes around 15%, welfare and 'education and employment' both 5-10%, and holiday travelling and clothing both less than 5%, the rest causing around 8%. Regarding guiding consumption from commodities with high intensity to low-intensity ones, many of the low-impact commodities evidently cannot substitute many of the high-impact ones, sometimes being also tightly connected to each other (like communication services and electricity), and this is discussed considering also possible rebound effects.

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The Legacy of State Socialism on Consumerism in Central Europe

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While post-materialist social values have begun to penetrate the mainstream in progressive Western societies, in Central Europe, a growing number of people who have just reached a middle class economic standard want to partake in long sought-after consumption choices. One more time in history these societies are trapped "in between," for at the very moment that more advanced post-modern societies are shifting their priorities towards environmentalism and global fair labour practices, Central European societies are caught up in their desire to obtain consumer goods and newly available symbols of middle-class social status. The narrative sometimes heard these days of Central Europeans under socialism exhibiting greater solidarity and stronger family values leads one to ask the intriguing question as to whether people under socialism were really less materialistic and individualistic than they are today or whether the solidarity narrative represents a nostalgic response to current disappointments.

In order to answer that question and understand the nature of consumerism in today's Central Europe, an analysis of shopping habits both during and after socialism is needed. One way to approach this analysis is through the study of the consumption of seniors whose habits were formed under socialism but who then adapted to a market economy. While it is clear that seniors have embraced the opportunity to purchase, it appears that what motivates their purchases has less to do with their own individual consumption than with ensuring family welfare and upholding tradition. This paper, based on an ethnographical study of seniors' shopping behaviour and attitudes, tries to explain the trajectory of consumption patterns in contemporary Central Europe, using the behavioural response of seniors to the market economy as an indicator of the direction of social change away from more family oriented strategies of consumption towards greater individualism in younger generations.

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SESSION B4: FUTURE OF THE SOCIAL MEDIA

The session B.4 continues from Session A.4 (See page 8).

Chair: Professor Sirkka Heinonen, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room C6

FRIDAY 29th MAY

SESSION C.1: COMMUNICATING CORPORATE SOCIAL RESPONSIBILITY

Communicating corporate social responsibility session discusses the communication between company and its stakeholders. Research data has included press releases and corporate environmental reports. In addition, corporate social responsibility has been address from the responsible brands perspective and from the stakeholder cooperation perspective.

Chair: Professor Johanna Kujala, University of Tampere, Department of Management Studies
Venue: Lecture room A2a

Responsible Brands: Literature Review and Preliminary Framework for Empirical Research

Johanna Kujala & Katriina Penttilä
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During the past years, responsibility and ethical issues have become increasingly important among different business actors. Companies have noticed that almost all decisions and actions include moral aspects, and started to consider the ethical soundness of business principles and processes. Moral awareness puts pressure on creating and managing brands, too. As consumers live among brands, they have a right to expect responsibility from companies in terms of product and brand management.

Corporate social responsibility (CSR) has recently risen to prominence as a serious discipline (Kitchin 2003, 312). Consumers and other stakeholders have increasing ethical expectations that they wish to see addressed (Crane 2005, 219). Creating responsible brands is one way to respond to these expectations. Brands mediate the promises of organisations to consumers, and it is brands that contextualise the relationship between customers and the company. If CSR is to have meaning, brands and branding must change, too. (Kitchin 2003, 312). Since there are numerous ways to address responsible brands, there is a need for conceptual clarity in this new field.

The purpose of this paper is to review the existing literature on responsible brands, and create a preliminary framework for empirically researching brands from the responsibility viewpoint. The paper starts by discussing the factors behind the change towards responsible brands. After that the premises of responsible brands are examined. A literature review on current approaches to the phenomena is also carried out. Based on the literature review, a preliminary framework for empirically researching responsible brands is presented.

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Communicating Corporate Responsibility through Media

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The purpose of this paper is to examine how a company communicates its corporate responsibility activities through press releases and how these activities are then presented in the media. Companies are nowadays expected to acknowledge their role in the society and to perceive that they have a wide range of important stakeholders who ought to be taken into account in decision making processes. Transparency and openness are seen as means to respond to the expectations of different stakeholders and to create trust. For the large public, media represents the main source of information regarding companies' operations and actions. Media has power to decide which issues will be covered and which will not be. Especially in Finland, where newspapers are widely distributed and read, the top newspapers have significant influence on thoughts and opinions.

Our empirical analysis is targeted at a case where a Finnish forest industry company was caught in the middle of a heated debate between Uruguay and Argentina when the company began the construction of a pulp mill in Western Uruguay. First, we will look at the company's press releases dealing with the construction and the start up of the mill and analyze the content of the releases to identify elements of corporate responsibility and stakeholder communication in the releases. Secondly, we will analyze articles related to the case published in the leading Finnish newspaper in order to find out if the issues covered are congruent with the content of the company's press releases in terms of corporate responsibility and stakeholder issues. The research approach in our study is qualitative, and we will use the content analysis method to analyze the data.

Based on our analysis, we will conclude which issues discovered in the company's press releases get published in the newspaper articles, and which are ignored by media. As responsibility issues are significant in building corporate image, it is important to have information on responsibility related activities published in media. As media has power and influence on public opinion, it is valuable to analyze what kind of messages are published and to what extent companies get their own message through. We will conclude our paper by discussing if companies can rely on press releases and media in fulfilling their communication demands set by various stakeholders regarding corporate responsibility issues, or should companies seek for alternative communication channels in cases where immediate and correct information is needed.

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Eco-efficiency in Environmental Reporting in Finnish Forest Industry

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Corporate environmental reporting (CER) is a tool of corporate environmental management (CEM). CER can take many forms: a stand-alone environmental report, a stand-alone corporate social responsibility report or a section in the annual report. The aim of CER is to inform the stakeholders about the environmental work done. Finnish forest industry is an interesting research topic of CER. The high stakeholder pressure has shaped the industry and it has been forced to improve its environmental performance and reporting. The aim of this paper is to examine the concept of eco-efficiency in CER. The three biggest Finnish forest industry companies, namely Stora Enso, UPM-Kymmene and M-real, are used as case companies. Their reports, corporate environmental, corporate social responsibility and annual reports, from 1998-2007 were used in the analysis.

The literature was used to produce four analysing criteria of eco-efficiency. First, eco-efficiency is defined as more from less (e.g. natural resource productivity). Second, eco-efficiency is a ratio between economic output and environmental output. Third, eco-efficiency is a management strategy. Fourth, eco-efficiency is seen as various ways to improve the corporate environmental performance.

The concept of eco-efficiency is seldom used by the case companies. However, the companies have improved their eco-efficiency in many ways. Typical ways to improve eco-efficiency were

- 1) to have a life cycle perspective in CEM,
- 2) to reduce the energy intensity of the production,
- 3) to enhance recyclability and
- 4) to maximize the use of renewable raw material.

The limitations of this review relate with the use of company reports. Company reports are accused of not giving a reliable picture of companies' doings and concentrating only on the positive aspects of the performance. In addition, the analysis covered only the published reports and the corporate webpage was excluded, although webpage is currently a part of CER.

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The Role of Stakeholder Dialogue in Constructing the Content of Food Supply Chain CSR

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The objective of the research project was to analyse and develop corporate social responsibility (CSR) in the Finnish food supply chain and construct the content of CSR in cooperation with stakeholders. The article presents the interactive research process with three main stages.

- 1) a detailed description of production chains especially from the CSR point of view
- 2) interactive stakeholder dialogues and
- 3) determination of content of CSR and construction of criteria and measures for CSR in the food chain.

One part of the interactive and participatory dialogue between stakeholders built in the project was the implementation of participatory stakeholder workshops. The role of the workshops was to provide an open, inspirational and interactive forum for stakeholder dialogues. They were inspired by a constructive technology assessment (CTA) type of approach. The aim of the workshops undertook during the project was to promote the transfer of ideas and the encounter of representatives from different stakeholder groups in order to ponder dimensions and content of CSR. The purpose was to get concrete outputs in terms of what kind of issues are connected to supply chain CSR and their priorities.

Based on an iterative research process, interactive and participatory stakeholder dialogue and interaction with experts, seven key food supply chain CSR dimensions were identified: environment, product safety, nutrition, occupational welfare, animal welfare, economic responsibility and local market presence. The dimensions drew on the analysis of the CSR ideas generated in three case-specific stakeholder workshops. In addition, all these seven food chain CSR dimensions and communicating on them should include transparency and openness as key elements for both the production chain and the related information. Finally, the paper presents conclusions and needs for further study.

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SESSION C.2: CONSUMERS AND CHANGING VALUES

In the first session of consumers and changing values, values are addressed from the point of view of eating and consumer relations.

Chair: Project Manager Paula Hakola, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room A3

Individual Choices? Bioscience, Culture and Society as Approaches to Genes, Eating and Health

Mari Niva¹, Mari Sandell² & Anna Kirveennummi³

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The interest in food, eating and health is increasing within a number of disciplines. Biosciences such as nutrition, genomics and biochemistry study the interaction between food characteristics, diets, genes, and health outcomes; and social and cultural studies examine the role of food in social life, food cultures and the meanings of eating as well as dimensions of food choice in particular contexts. However, these fields rarely meet to discuss the ways in which the diverse theoretical perspectives could be combined to enhance the understanding of eating patterns in contemporary society.

This paper presents a plan for an interdisciplinary study that aims at examining the practices of eating as an entanglement of biology, culture and society all together. By combining our backgrounds in food chemistry, psychogenomics, consumer economics, sociology of food, cultural studies and ethnology we aim at analysing simultaneously the role of genes in the formation of eating patterns, the social and cultural practices of food and eating as well as the meanings of food, health and genes in lay and expert discourses. Our interest focuses on genes as not only as a biological fact but also as a scientific discovery that increasingly shapes our understandings of the interconnections between genotype, eating patterns and health.

In this paper we first highlight the basic assumptions on the role of the social and the individual in food psychogenomics, theory of practices, sociology of food and cultural studies. Then we present our own effort to put these approaches together as an empirical study that employs both analysis of genotypes of voluntary participants and qualitative and quantitative studies on notions of eating. And finally, we discuss the potential challenges and discoveries we might face in the process of finding a common language, developing our theoretical ideas and producing new perspectives.

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The Collaborative Consumer and the Neo-renaissance Marketing

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The information revolution and the advent of the collaborative Internet has accelerated the emergence of collaborative networks and practices based on win-win strategies with free and open access to tangible and intangible assets. In this new scenario, consumers are more empowered and connected, becoming co-authors and protagonists of production systems, shaping a neo-renaissance era which is shifting the balance of power between producers and consumers as the Tofflers (Alvin and

Heidi) predicted in the beginning of the 80's (The Third Wave) bringing about the concept of the "Prosumer Economy" (a neologism that puts together two words: producer and consumer).

Collaborative consumers are powerful agents that are shaping the future of the economy by sharing knowledge and interacting with different players, contributing to increase profit and reduce costs. Creativity hierarchies are collapsing and competition is becoming obsolete as a condition in the booming collaborative era.

Interdisciplinary approaches are increasingly requested for the interpretation of in user generated contents based on the individuals dispersed consumer/producer daily experiences and the community oriented network practices.

In this paper, the authors will present an historical background of the evolutionary process in the consumer relations and will expose how different aspects of this "prosumerism" are reinventing the marketplace and creating new business opportunities in the 21st century, through best practices in the world and in Brazil.

Well known concepts in the social sciences, as collective intelligence, bricolage, intellectual capital, social networks, mass customization and community based interactions migrating to an open innovation environment are key aspects of the authors understanding of products as non ending artefacts on a new values chain perspective.

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SESSION C.3: SUSTAINABLE FOOD CONSUMPTION

Future of the Sustainable food consumption is discussed altogether in three sessions during the conference. This first session sustainable food consumption is studied with scenarios and looking at the change patterns.

Chairs: Head of Research Päivi Timonen, National Consumer Research Centre & Senior Research Scientist Juha-Matti Katajajuuri, MTT Agrifood Research Finland, Biotechnology and Food Research

Venue: Lecture room A4

Consensus on the Diversity of Consumer and Consumption Perspectives

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This paper describes a research based scenario project on sustainable consumption in Belgium. In the Consensus project a scenario method was developed and tested by the research team to assess scenarios both as learning and participation tools for sustainable consumption. By using a decomposition analysis a solid ground was laid to adequately summarize three guiding principles on how to reach a (more) sustainable consumption: eco-efficiency, de-commodification and sufficiency. These 'pure' strategies – showing significant similarities with concrete discourses – were then translated into a participative process: two expert-driven workshops and interim research yielded three future images of food consumption as well as indications on their boundary conditions. These three images reflect truly different approaches on how to organize practices related to food consumption. This structural diversity allowed us to address an archetypical consumer, i.e. a generalized consumer based on the specificities of the scenarios. These consumer perspectives do not aim at indicating real (even potential) groups, but aim at illustrating how the environment of interactions around the consumer fundamentally changes throughout the three sustainability discourses. It is argued that thinking through alternative modes of consumption is of importance to support debate in governance arenas that wish to address the transition towards a more sustainable consumption.

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Everyday Practices as Carriers of Change: Consumers' Ideas of Sustainable Food Consumption

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The global consequences of environmental problems are widely recognised in both political agendas and in people's everyday life. As food consumption forms a significant part of the environmental load of households, the sustainability of what we eat is an increasingly topical question. The starting point of our paper is the theory of practice as a potentially fruitful theoretical approach to ecologically and socially sustainable food consumption. Our aim is to address the everyday encounters between consumption practices and the different dimensions of sustainability. We analyse consumers' ideas and notions on future food consumption from the perspective of practices understood as doings, sayings and materials as changing in time.

The empirical data of the study were collected as part of collaboration between multidisciplinary BRIGADE and MIRHAMI 2030 projects. This sub-study investigates the social and cultural conditions affecting sustainable food choices by mapping consumers' ideas about future food consumption. Altogether 53 participants participated in six focus group discussions held in autumn 2007. The participants were invited to construct images of future food consumption by thinking about activities relating to cookbooks, kitchens, grocery shopping, food packaging and meals. The results show that in consumers' ideas the changes in practices were linked with the technological and material transformations envisioned for the future.

These exercises depict that consumers' images of future food consumption are embedded in practices that are at the same time are changing and stable. Through these materialized practices consumers are able to recognise their various roles as users, consumers and citizens in constructing future. In order to discuss sustainability we need to recognize how practices act as carriers of change.

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Scenarios of Future Food Consumption in Finland 2030

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What's for Dinner Tomorrow? (MIRHAMI 2030) project explored during years 2006–2008 the futures of food consumption in Finland. We were interested in pinpointing the driving forces and societal changes that affect especially food consumption. The project investigated the changing environments of food systems with several means to scan out possible futures of food consumption. We collected data with a statistical analysis of food consumption structure, an analysis of international food trends, a Delphi study including 39 qualitative expert interviews and questionnaire and six consumer workshops.

The aim of this paper is to present four scenarios of food consumption based on these various data sets. Firstly, we describe the process of producing these scenarios from the available data. Secondly, we depict the four scenarios of food consumption and their drivers. The scenarios were visualized in the form of star maps. Each pattern included the most important driving forces affecting food consumption in that particular scenario. The scenarios were named as "Cornucopian Future of Food Consumption", "Ecological Food Consumption", "Scarcity and Shortage of Food" and "Techno-Life and Food". Finally, we discuss the role of these types of scenarios and processes in forecasting the future.

The project was conducted by Finland Futures Research Centre in collaboration with National Consumer Research Centre (NCRC), Agrifood Research Finland (MTT) and Finpro. Predominantly financed by the Finnish Ministry of Agriculture and Forestry, the project attracted several corporate partners from different sectors of the food chain, with Raisio from the food processing industry, Saarioinen from convenience foods, Fazer Group from the confectionery, bakery and catering industry, the S Group from the retail trade, Olvi from the beverage industry, and the Helsinki Metropolitan Area Council (YTV) as a representative of the waste management sector.

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SESSION C.4: INNOVATIVE EDUCATION FOR A SUSTAINABLE FUTURE: SOUTHERN PERSPECTIVES

Innovative education for sustainable future session discusses the possibilities to use the African Catchment Game to practise sustainable development.

Chair: Professor Roddy C. Fox, Rhodes University, Department of Geography, South Africa
Venue: Lecture room C6

Learning about Sustainability through Experiencing Complex, Adverse Conditions Typical of the South: Reflections from the African Catchment Games Played in Finland 2008

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The African Catchment Game is an innovative role playing game which was played twice in Finland in 2008 as part of the CIMO funded collaboration between Finland Futures Research Centre and Rhodes University. It simulates a "real imaginary country" (Chapman 1983) and enables participants to explore and experience how southern countries may or may not develop scenarios of sustainable resource extraction and consumption. New processes modelling climatic variability, water management and consumption were introduced for these two game runs. This imaginary country has roles for an urban/industrial sector, the informal sector, trading intermediaries, overseas trade, a government comprised of a president and two ministers, peasant and commercial farmers. Chapman's original game, Green Revolution Game/Exaction, is based on systems and complexity theories from the 1970s and 1980s. Our modifications to Chapman's game are underpinned by theories of Complex Adaptive Systems and educational approaches based on constructivist, active/experiential learning models.

The paper presents an analysis of the two Finnish games from the perspectives of the participants, the game managers and using quantitative economic, social and productivity information collected throughout the game. Managers' information is based on participant observation, photographic records, manager's blog and notes taken during the game runs. Participants' information came from pre and post game questionnaires and the focus group discussions which were part of the debriefing process. Macro-scale production, consumption, resource utilization, trading and water provision data was collected by the game managers as part of their management processes throughout each game run.

We reflect on the effectiveness of the strategies implemented by the game players in the face of adverse trading conditions, poor infrastructure and climatic variability. The complexity of the game and the structures which it models clearly challenged the players to implement cooperative strategies which promoted survival whilst also enhancing sustainability.

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Exploring Climate-Related Risk through Role-Playing Games: the African Catchment Game

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Risk is the result of two interacting components: hazard and vulnerability. Climatic hazards are related to extrinsic factors such as drought or severe storms. Vulnerability is the result of intrinsic factors that often arise from the socio-political-economic context. The interplay of risk and

vulnerability is difficult to predict. Although computer models have been widely used to forecast climate related risk, albeit with considerable uncertainty, they can never capture sufficiently the vulnerability of human systems to these hazards. Role-playing games can be used more realistically to simulate possible outcomes of different climate change scenarios, and allow players to reflect on their significance. The authors have developed the African Catchment Game to simulate a water scarce African country. Risk can be modelled mechanistically by changing the nature of the annual rainfall input. Vulnerability can in part be modelled by changing the starting parameters (such as access to land and resources) and, secondly, through the unpredictable response of players to game dynamics. Players' reflections demonstrate that through the game they become more aware of the concept of risk and the complex response of individuals and societies that determine their vulnerability to climatic hazards. This paper reflects on the potential for developing the game further as a tool for participatory learning around climate change, based on the authors' experience of playing the game with participants from South Africa, the United States of America and Nordic countries.

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Swampfire: an HIV/AIDS Simulation for Enabling Learning about Risk and Vulnerability

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The HIV/Aids pandemic is the greatest public health crisis facing the world at present. South African has the highest number of HIV-infected people (including children), AIDS-related deaths and orphans in the world (UNAIDS, 2008). South Africa's HIV/AIDS pandemic is impacting substantially on the country's overall social and economic development. The average life expectancy in South Africa is now 54 years and over half of 15 year olds are not expected to reach the age of 60. South Africa still has to deal with the conversion of HIV to AIDS in its most economically productive population sectors (aged 20 to 44 years) which will have far reaching consequences (many of which are still unknown) that lie well beyond the health sector (Whiteside and Sunter, 2000). Issues of health, well being, risk and vulnerability need to be integrated into all levels of education and training.

Education is seen as having a crucial role to play in winning the fight against AIDS. Pedagogically, the challenge is to identify and implement effective teaching strategies which promote understanding, and active and responsible citizenship. This is practically important given the diversity and complexity of the social landscape in South Africa. It is to be expected that there are great variations in people's understanding of, and attitudes to, HIV/AIDS.

This paper critically analyses how Swampfire, a role playing simulation that models the diffusion of HIV/AIDS through a community, was piloted in a pre-service education teacher program at Rhodes University, South Africa. The design and implementation of an inter-actional pedagogical approach, of which Swampfire is one pedagogical activity is explained and justified. As work in process, the preliminary findings suggest that the simulation enabled learning about risk and vulnerability. Furthermore, it provided a space for critical engagement with issues of social identity, social justice, democracy and sustainable futures.

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SESSION D.1: COMMUNICATING CORPORATE SOCIAL RESPONSIBILITY

The Session D.1 continues from Session C.1 (see page 17).

Chair: Professor Johanna Kujala, University of Tampere, Department of Management Studies
Venue: Lecture room A2a

SESSION D.2: CONSUMERS AND CHANGING VALUES

The second session of the topic consumers and changing values address the future of consumption from the point of view ethical consumption and consumer data.

Chair: Project Manager Paula Hakola, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room A3

Consumer's Values and Eco-fashion in the Future

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This study concerns the importance of the change in consumers' values and the influence of the ethical consumption phenomenon on sustainable product design and production. What are the internal drivers when consumers make their ethical purchase decisions? Markets are moving towards ethicality very fast. Green brands are becoming more common, and consumers' interest in ethicality is raising ethical questions on the mass market. Enterprises are expected to operate according to ethical principles and to work towards sustainability. But what does a consumer expect of sustainable products? Are they allowed to cost more? Can they be hard to keep clean and smooth? Could future fashion have a limited colour selection? What materials can they be made of and who can make them? Do consumers want their clothes to be decomposable? How should sustainable products be marked and distinguished in the shops? Do consumers want to buy them in supermarkets or on the Internet? The present study connects consumers' values and expectations to the future of ethical products, especially in textile, clothing and fashion design. And what is future eco-fashion? This question is related to the newest technical possibilities in textile production and the field of fashion.

Consumers wish to find more information about the ethicality of products but what kind of information? They wish to see a better and wider selection of ethical products on the market but what kind of sustainable design products? More than 70 % of the consumers in Western Countries are aware of sustainability issues and environmental aspects and they want to contribute to sustainability with their acts and consuming behaviour. It is estimated that only five to ten per cent of the present product supply is sustainable. But are consumers ready to go along with future sustainable design in the field of textile and fashion? Are they required changes in their attitudes and behaviour? Are they ready to accept a different aesthetical conception and different textile cleaning and maintenance customs if they are more environmentally sustainable?

When production systems, designers and franchising groups understand better the consumers' values and when they take into consideration what customers expect of the future, sustainable products and production will become a mega trend. There will be a wider supply of sustainable items in supermarkets and, thus, it will be easy for a customer to vote for sustainability by doing his everyday purchasing.

While global business is getting harder, and this shows in all production in Europe, it might be advisable for producers to specialize in sustainability. This might give quite a few new business opportunities in the future. And it can also be the only way of designing and producing products in the future.

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How to Analyze Various Consumer Data in the Future?

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Most business organizations dealing with consumer products struggle with data coming in various forms and extensive quantity. Quality of the data is questioned among business practitioners. The data is rarely used in a way that helps in making the right decisions. Business organizations seek new opportunities for dealing with consumer trends, new forms of gathering consumer data and engaging consumers into the business practice.

The real opportunity is in what we define as "open data": New kind of consumer data produced by the consumers themselves from their perspective and for their own purposes that is not intended to be used as consumer data. It is shared publicly in such a way that it can be used as basis for the business and non-profit organizations in their quest for novelty and understanding of changing consumer trends.

In the Lego case study, we found that data produced by the consumers themselves is efficiently used by integrating brand communities, such as adult Lego fans, into the product development processes. We use the case of Lego as an example of the pilot organizations in anticipating and creating its future with the brand communities. In our presentation, we discuss also the other opportunities brought by open data. We analyze what determines the use of new forms of data and new ways of looking at the consumer trends as well as discuss if new methods are suitable and fruitful for every industry, company size and phase of the product development process. As a result, we present in this paper a comparison of how users and their needs are conceptualized through conventionally gathered structured data, the weak signals approach and how analysis could be done with the open data. We also suggest preliminary methods for analyzing open data.

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SESSION D.3: SUSTAINABLE FOOD CONSUMPTION

The second session of the sustainable food consumption discusses the consumers' value action gap and the greenhouse gas emissions of the food production.

Chairs: Head of Research Päivi Timonen, National Consumer Research Centre & Senior Research Scientist Juha-Matti Katajajuuri, MTT Agrifood Research Finland, Biotechnology and Food Research

Venue: Lecture room A4

Dietary Choices and Greenhouse Gas Emissions – Assessments from Household to National Scale

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This study explores the impacts on agricultural GHG emissions if the consumption of animal based products was reduced and if the share of ecologically produced food was to increase in Finland. GHG emissions associated with production of basic food items were quantified (per capita per annum) for current food consumption, for national standard diet recommendations, for a diet with no milk and beef and for a vegan diet including an oat-based milk substitute.

The major source of GHG in primary food production is the cultivated soil. For the present average food consumption the emissions from the soil comprise 62 %, the share of the emissions due to enteric fermentation is 24 %, whereas energy consumption and fertilizer manufacture both contribute about 7 %. Because of the extensive production mode, regarding GHG emissions the environmental performance, of organic production is poor.

A strict vegan diet would result in nearly 50 % reduction in GHG emissions from agriculture, but the reduction of the total emissions due to consumption would be about 8 %. Reducing the volume of GHG emissions through food consumption would require large-scale changes among the entire population and is, therefore, unrealistic. Instead of stressing the impact of individual citizens' diet choices; more attention should be paid to public catering and to development of business and policy instruments. Rather than focusing only on GHG emissions, attention should be paid to the overall sustainability of food supply.

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Carbon Footprint of Food Maintenance in Finnish Households

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The paper is concerned with the content of greenhouse gas (GHG) emissions generated in food maintenance by Finnish households. The main factors having an effect on the emissions are introduced, namely transportation, preservation and preparation of food. The research applies sensitivity analysis in order to show the range of greenhouse gas emissions. We also compare the GHG-emissions of two food maintenance patterns for a household of four.

Data studied are formed using both micro and macro level approaches. Micro level data comprise of individual transportation, preservation and preparation instances. Congruent macro level data are based on Finnish national averages. These different approaches are applied as appropriate. Further, national averages of greenhouse gas emission factors are used for electricity and different transports.

This study shows that as an average the food maintenance (transportation, preservation and preparation of food) of a Finnish household produces annually 170 kilograms of CO₂-equivalent per individual. Of transportation, preservation and preparation, we find the preservation as the most important source of greenhouse gas emissions. The annual GHG-emissions vary between 45-300 kilograms of CO₂-equivalent per individual due to different food preparation, preservation and transportation habits.

The food maintenance patterns under comparison for a household of four are as follows. The first pattern is to buy small quantities of food daily on the return trip from work. The second pattern is to obtain larger quantities of food by car once a week. We find that the first pattern produces less carbon dioxide compared to the second one.

As a conclusion, results advocate shorter transportation distances, lesser need for freezer appliances and non-energy intensive food preparation methods. For a consumer this could mean dispensing with chest freezer and increasing the use of microwave oven in food preparation.

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Consumers' Perceptions of Sustainably Produced Food – a Focus Group Study

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Prior research concerning the consumer decision-making process with regard to sustainably produced food is limited. The purpose of this study is to provide information on consumers' perceptions of sustainably produced food products and the main product attributes that influence consumer's buying behaviour in the case of sustainably produced food.

This paper draws on data from four focus groups where 19 Finnish consumers were asked to discuss their views of organic food, Fair Trade and locally produced food. The focus group transcripts were analysed by using qualitative thematic content analysis. The results provide empirical insight into the motivating as well as the restricting factors which influence consumers' purchasing behaviour in the case of sustainably produced food and introduce the emerging key themes associated with the attributes of sustainably produced food products. By identifying the most salient themes for the focus groups, this research may have implications for planning marketing communication to consumers and, potentially, for product development and labelling.

While further research would be required to elaborate beyond product attributes and perceptions in order to further explore consumers' attitudes towards sustainably produced food, this paper still indicates the complexity of the issue. Moreover, future research should consider the differences between the attitudes of consumers and the attitudes of food marketers, manufacturers and producers as well as the means of more effectively promoting the consumption of sustainably produced food.

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SESSION D.4: GLOBALISATION OF CONSUMPTION

The globalisation of consumption session reviews the global environmental effects of the consumption. Case studies are provided from developing and developed countries.

Chair: Project Manager Katriina Siivonen, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room C6

The Future of the Globalisation of Consumption: Glocalisation, Grobalisation, Easternisation or Something Else?

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A new phase in the academic discussion on globalisation started in the beginning of the 1990s. Earlier mostly historians like Fernand Braudel and few social scientists like Immanuel Wallerstein had described the process of acceleration of capital movements, movements of people and transfer of consumer goods between countries and continents. However, they did not exactly name the process as globalisation. Since the early 1990s, the discussion expanded and scholars started to give definitions to the phenomenon. Many scholars have also emphasised the role of technology and media in this process.

The American sociologist Robert Robertson introduced the later widely used concept of glocalisation. By this he meant the integration of the global and the local. Later, only few years ago, another American sociologist George Ritzer characterised the present stage of globalisation as grobalisation. By that he means a process driven by three forces: capitalism, McDonadisation, and Americanisation. Ritzer emphasised the grobalisation as an antithesis of glocalisation. However, there is a recent point of view presented by the British sociologist Colin Campbell. He writes about the easternisation of the West. In my paper, I am going to examine the perspectives presented by Robertson, Ritzer and Campbell and suggest some conclusions concerning the future development of consumer societies. There are an increasing number of researches who point out the problems of seeing the American consumer society as a paradigm for all societies. The historian Frank Trentmann is one of the leading scholars, who has edited and published several books and articles concerning variety possible paths of consumer society development all over the world. Finland is an interesting case of the late consumer society development between the East and the West.

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Globalisation of the Environmental Burden of the Finnish Consumption

Ilmo Mäenpää¹, Ari Nissinen², Sirkka Koskela², Juha-Matti Katajajuuri³ & Jyri Seppälä²
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The results of the recent ENVIMAT project show that in 2005 more than a half of the total material requirement (TMR) and more than one third of green house gas emissions (GHGs) caused by Finnish household consumption were generated by imported goods and services.

In this study, we analyse how import induced environmental burdens of Finnish consumption have changed in the ten year period 1995-2005, and what were the most important factors behind the changes.

We use the 59-sector input-output tables of the Finnish economy from the years 1995, 2000 and 2005. The tables provide details on the changes of the structure and imports' shares of the consumption. The factors behind the globalisation of the environmental burden of consumption can be divided into following three components:

- 1) changes in the amount and structure of consumption
- 2) changes in the shares of direct imports to each consumption commodity group
- 3) changes in the shares of imported intermediate inputs for domestic production of each consumption commodity.

Life cycle environmental burdens for domestic and imported products were determined. We present the results using two indicators: total material requirement and green house gas emissions.

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Transnational Retailing and the Political Economy of Land Development: The Case of Makro 'Embedding' in Karachi, Pakistan

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Although under-researched retail foreign direct investment (FDI) in the context of economic globalization continues to gain good currency across disciplines as diverse as business management and economic geography. With the advent of retail transnational corporations (TNCs) into new emerging markets in South Asia, there is an urgent need to widen the geographical lens and incorporate countries such as Pakistan into the research agenda to further enrich our understanding and conceptualization of retail FDI's impact on host economies and societies. Metropolitan regions in Pakistan have witnessed the rapid entry of leading food and general merchandise retailers such as Makro and Metro, a trend facilitated through joint-ventures between key local economic agents and European investors. Due to its high GDP growth rates of past decade, rising per capita income, high rate of urbanisation, favourable demographics and economic liberalization, Pakistan is viewed as potentially attractive investment opportunity for global retailers. Recent studies indicate a high market saturation score that "reflects one of the least concentrated retail sectors in the world" (ATKearney 2005).

Karachi, a key economic centre, provides an interesting backdrop for exploring the role of institutional, social, cultural and regulatory dynamics in facilitating retail TNCs' efforts to gain organizational legitimacy. Based on open-ended interviews with key informants, e.g. CEOs, representatives of community organizations, lawyers, the exploration provides insights into the volatile process surrounding site selection and land acquisition in metropolitan regions such as Karachi, where the opaqueness of land titles and planning regulations pose a challenge for both global retailers and local communities in terms of protecting and advancing entitlement rights.

Land acquisition is the 'first stage' when TNCs gain visibility in local contexts. The case study suggests TNC adaptation is country specific and contingent upon a dynamic political-economic process that cuts across a complex terrain of networks and institutions.

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SESSION E.1: FUTURES RESEARCH METHODS

Futures research methods session discusses the use of various research methods in modelling the future. E.g. trickle down theory, futures workshops and decomposition will be presented.

Chair: Research Professor Jyrki Luukkanen, Turku School of Economics, Finland Futures Research Centre

Venue: Lecture room A2a

Trickle Down Theory – Fact or Fable? Transitions of Consumption Models in Testing of Time Series Data

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The article applies the so-called trickle down theory to the time series data of Statistics Finland's Household Budget Survey from the period between 1985 and 2006. It examines whether the structure of consumption changes over time according to a model tied to income. The basic assumption is that the structure of consumption in high income brackets in year X "anticipates" the average consumption of households in year X+(10 or 15).

In my doctoral dissertation (1996) I applied this sociological basic assumption in forecasting energy consumption in 2015 with data on the consumption of households in 1990. I concentrated on predicting energy consumption under the assumption that, for instance, the share of households with an automobile would be the same among all households in 2015 as in the second highest income quintile in 1990.

The time series data of Statistics Finland which describe consumption over two decades provide a unique opportunity to examine the trickle down phenomenon with data on real consumption. This article studies "downward" trickle between income groups over time. It first compares the consumption of an average household in three years (1998, 2001 and 2006) with the consumption of the highest income quintiles or deciles in earlier survey years by means of correlation and percentage deviations. The studying could be applied both to the main groups of consumption, such as food, housing and transport, and within them. The examinations are made using standardized consumption units.

The article studies whether the impact on consumption from growth in income follows an analogous model with which future projections could be made of consumption and its structure. Very few examinations have probably been made of the sociological trickle down phenomenon with empirical data like here, so testing of a new method is concerned.

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Searching for Innovativeness and Empowerment: Futures Workshops as Qualitative Research Methodology

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In a futures workshop, people work together in order to create a common vision and strategic tools to reach that vision. The facilitator helps them to start with a critique phase where current problems are discussed and to go forward to an imagination phase where new and innovative solutions to these problems are sought. At the end of the process, the facilitator guides the group to define the means by which the vision is realized. This is the basic structure of a futures workshop. (Jungk & Müllert 1987)

The whole working process of a futures workshop consists of the interaction between different powers, a balance between different intentions: the intention of each individual participating the workshop, the intention of the group as a whole, the intention of the facilitator(s), the intention of the financier and maybe the intention of the producer of the workshop. Balancing these different powers, the target is to find a common vision and a strategic plan for the whole group working together in the workshop.

What are the possibilities of promoting innovativeness and empowerment in such a contradictory process? I will analyze this question by viewing futures workshops as a qualitative, dialogical research methodology. As an example, I use the project "Culture as a Resource for the Countryside (KULMA)" where futures workshops were used to create cultural strategies for groups of various actors in the field of culture.

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How Do Consumers Affect Changes in Macro-level Forces behind CO₂ Emissions? – Looking beyond Population, Affluence, Energy Consumption and Technology

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Increasing consumption and population growth are major driving forces for energy-related CO₂ emissions. Improvements in energy intensities of economies and in emission intensities of energy production are insufficient to curb emissions. Despite improvements in technology, reducing consumption and emphasizing the active role of consumers is needed for combating climate change in the future.

Four macro-level forces, population, affluence (GDP/capita), energy intensity (energy/GDP) and technology (CO₂/energy), and their relative impacts on emissions can be clearly presented and analysed using the ImPACT decomposition model. Factors behind these macro-level forces, the mechanisms by which consumers actually influence the forces and barriers to consumer emission reducing behaviour are discussed in this paper. Consumers' lever is defined in the original ImPACT equation as the energy intensity variable. Consumers have some leverage over the intensity of energy use, but consumers' lever extends to population, affluence and emission intensity as well. Energy efficiency and technology can be influenced through the quantity and quality of daily purchases and investments, or by exercising energy conservation measures. Exchanging incomes for leisure would affect expenditure levels available for consumption and make significant contributions to reducing emissions. Family planning is also a radical and powerful instrument affecting CO₂ emissions. Environmentally responsible behaviour is determined by individual motivation, abilities and opportunities, and the ability to overcome barriers to emission reducing behaviour. Structures behind consumption, including: individualism, international trade, and current market structures are strong. Existing infrastructures influence direct energy requirements of households. Economic incentives, regulatory policies, adequate information and the availability of choices are necessary for decreasing consumption and empowering consumers.

SESSION E.2: EMPOWERING TOMORROW'S CONSUMERS

Empowering tomorrow's consumers session address the active role of the consumers in the future. The presentations focus on consumers and innovation, new ways to empower consumers and consumer organisations.

Chair: Project Director Piia Nurmi, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room A3

Experience Innovations for and by Consumers

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The concept of the experience society describes the idea that experience is becoming an accelerating force in our everyday life. Schulze (1992) sees this as a result of the transition from a scarcity to abundance in post-war years. Pine and Gilmore (1999) view an even longer perspective and argue that we are witnessing a two hundred years long shift from an agrarian economy based on extracting commodities, through an industrial economy based on manufacturing goods, then a service economy based on delivering services, now to an experience economy based on staging experiences.

What is particular about the potential transition to experience economy is the assumed close linkage between the incentives of profit-making firms and the evolving needs of consumers. This linkage seems to make sense conceptually, but there is still a long way to go in terms of business practices. We argue that businesses currently focus too much on creating high arousal, extreme experiences and too little on actually involving future consumers in the creation of experiences.

Our work has two contributions to the body of work on experience creation. Firstly, we analytically extend the concept of experiences in the direction of low arousal, repetitive and mundane experiences. Secondly, we make a practically oriented redefinition of what constitutes an experience by bringing in learnings from the domain of user involvement in product development. This way we can obtain a more diversified picture of the kinds of experiences that users can be involved in creating. We use case studies carried out within the fields of sports and interactive computing to back up our argument.

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Empowering Tomorrows' Consumers through WWViews

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This paper anticipates and reflects upon the future impacts of consumer empowerment in the context of new participatory governance practice. The example is World Wide Views (www.wwviews.org), a global participatory project empowering citizens and consumers around the globe to impact on international climate change negotiation.

The paper reviews the rationales of integrating non-experts – citizens and consumers – in complicated decision-making systems such as international climate change negotiations. The rationales include the need for building more democratic systems for technical decision-making and revitalizing citizens' and

consumers' interest in political issues; the idea that broad based participation will contribute to socially robust decisions on controversial issues such as climate change policy; the belief that citizens' and consumers' deliberation on the content of future climate policy will provide useful information and new ideas for policy makers and climate change negotiators.

The main focus of the paper is on the anticipation of both the political impacts and challenges of WWViews, the first-ever global-scale participatory project. The paper argues that an initiative such as WWViews can have significant impacts in revealing gaps between national negotiators and citizens and consumers; in restructuring the debate by introducing previously excluded view points; and by driving policies toward more carbon neutral solutions. The paper discusses the key challenges of the WWViews and its objective to promote participatory governance in international decision-making.

The main challenges so far identified relate to:

- the need to reconcile a centralized project concept with highly variant national policy cultures
- the effort to transmit and disseminate participants' learning experiences of climate change issues to the broader publics
- the challenge of conveying the message of individuals without direct institutional stakes in climate policy to the government climate policy negotiators
- the recognition of deliberation as a legitimate part of decision-making.

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Empowering Tomorrow's Consumers

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Tomorrow's consumers are the consumer's of today who have stakes in the evolving and dynamic economy of their country of domicile in particular and in the economies of the world in general. Empowerment is more of a matter of education, enlightenment and sensitivity to issues of economic importance particularly than anything else. A combination of the concepts of empowerment and the words tomorrow's consumers, needless to say, purports educating tomorrow's consumers to take charge of their future.

There are many ways that the empowerment of future economic agents can be achieved regardless of the setting and context. In a national setting for instance, apart from education, the government of the day could lower interest and tax rates to encourage and boost investments and disposable income at the command of presumably those identified to be future consumers.

Another way that future consumers can be empowered in a sub-continental setting is economic integration and globalization which is capable of stripping businesses and other economic activities of unhealthy and unprofitable barriers and impediments to the free-flow of trade and transactions. A consumer can also take it upon him/herself to be informed enough by exploring and exploiting opportunities and investment proposals by reputable firms.

A consumer who is informed about the behaviour of stocks and other tradable and liquid assets is more likely to benefit from the potential swell or hike or appreciation of stocks than the unformed one. Fund and portfolio managers, stock brokers and other investment analyst will enjoy greater patronage if consumers of their products are from time to time called upon to attend seminars and conferences where matters affecting investments and other issues of economic relevance are addressed. Ignorance anywhere is a threat to prosperity everywhere, all hands must be on deck and no stone should be left unturned in educating future consumers.

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SESSION E.3: SUSTAINABLE FOOD CONSUMPTION

The third session of sustainable food consumption addresses the role of environmental information in food consumption. Environmental information is discussed from the point of view of the whole production chain, the consumers and the responsibilities.

Chairs: Head of Research Päivi Timonen, National Consumer Research Centre & Senior Research Scientist Juha-Matti Katajajuuri, MTT Agrifood Research Finland, Biotechnology and Food Research

Venue: Lecture room A4

Environmental Impacts on a Lunch Plate – Challenges to Interpret the LCA Results?

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The challenges of the project was to reveal and interpret complex and contrasting environmental issues of food to consumers, in order to build up more comprehensive understanding on LCA results as measures of sustainability.

This approach was linked to the specific exemplifications of lunch plates. Expertise from various scientific fields was used to identify the key environmental issues, food chain stakeholders to provide appropriate environmental data for LCA, consumer researchers to link that into food consuming framework, and teaching experts to introduce pedagogic aspects into the lunch plate presentation.

Regarding differences in the environmental impacts, animal based food versus vegetable food was assumed to offer basic contrasting alternative in LCA results of a lunch plate. Other aspects which were dealt were domestic versus imported food, home cooking versus ready-to-eat products versus lunchroom kitchen, seasonal diet versus season free diet, and cultivated versus wild raw materials.

The basic issue rising in the interpretation is the fact that lunch is a nutritional whole, in which changeability of components is restricted, and changes of components environmentally sensitive; we actually play with functional components of whole food systems and measure combination of single LCA impacts. In such a context, environmental contrasts should be generic enough to concretize key impacts, not be confused missing data or variability of practices. On the other hand, one can claim that only process based (i.e. trade mark based) LCA data is valid for the actual every-day choices that consumers make in the markets. We already know that for a comprehensive view hybridizing LCA with input-output approach would be needed. Meanwhile, failures and successes in the interpretation of the LCA impacts are presented.

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Application of Lunch Plate Model for Communication of Environmental Impacts of the Consumer's Food Choices

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The aim of the study was to develop a communication practice that would help people to understand how environmental impacts of food choices will be determined, and therefore boost their opportunities to make sustainable choices as consumers in the future. Pupils of the upper classes of elementary school were selected as a target group, and communication environment is the elementary school.

Lunch plate model is commonly used for learning consumers about healthy choices in food portion constructing. It includes a principle of dividing plate to three parts; half of the plate consists of vegetables, one quarter consists of protein source and one quarter consists of carbohydrate source, and completion a portion with bread and milk, and a visualisation of the portion. That general model was a basis of our environmental communication model development because we wanted to make sure that our message on environmental impacts of food doesn't fade out habits of balanced and healthy eating.

Diverse lunch plates and their environmental impacts are expressed. Six criteria were used to design the food portions: 1) Equally amount of energy, recommended to lunch for our target group, 2) shares of energy from proteins, fats and carbohydrates are close to official recommendation, 3) different foodstuff with large differences regarding environmental impacts, especially for global warming and eutrophication, 4) relevant information on environmental impacts by LCA approach is reachable, 5) servings are familiar to the target group, and 6) equal servings could be eaten at the school dining room and at home as home-made meal or ready-meal.

Teachers of biology/geographic and home economics have participated to the development of the model.

This work was done in project Environmental impacts of the consumer's choice of daily foodstuffs – and communication on them (ConsEnv), and funded by the Ministry of Environment and food enterprises.

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Law vs. Ethics in Food Business

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Legal questions involved in food production and marketing are often simultaneously questions of ethics. Examples are:

- How should production animals be treated?
- Should growth hormones for animals be allowed?
- What and how much chemicals should be used in farming and food production?
- Should GMOs be allowed in food?
- Does origin matter? Should Europeans favour European food?

- Who is responsible for children's obesity?
- How much meat can we eat?
- Where to put the rubbish?

Opinions on what is ethical vary greatly. Opinions also vary on who is responsible for ethics in food business. There are three strong alternatives:

1. Legislators. Legislators force businesses to be ethical.
2. Businesses themselves. Businesses freely use ethics as means of competition.
3. Consumers. Consumers force businesses to be ethical.

Food companies and their representatives use various ethics guidelines. Compared to law, food companies prefer self-regulation and focus on business ethics. Law is often mentioned merely as a side note in an ethics report. The U.S. legal system leaves more room to business ethics and relies on the civil society to resolve ethical issues, whereas the European legal system traditionally focuses on binding legislation. In practice, law has often been stricter than food company codes. Focus on business ethics might be used to block binding legislation or to blur consumers. Legislators need to focus on the ultimate goals of food law, and ethics and sustainable development need to be at the top of the list. Governments need to consider alternatives to legislation, such as co-regulation, self-regulation or information guidance. If consumers lack necessary expertise or interest in ethical issues, legislators might be wise not to let markets decide on ethical issues in food business. This means the EU and national governments might need to enact laws that will make all EU food business fair trade. The scientific community is responsible for providing the necessary information for decision-making, including information on consumer behaviour and future trends.

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SESSION E.4: CONSUMERS IN THE FUTURE

The session Consumers in the future focuses on consumer mega trends, changing consumer behaviour and role of culture in consumption.

Chair: Education Manager Leena Jokinen, Turku School of Economics, Finland Futures Research Centre
Venue: Lecture room C6

Consumer Megatrends as Drivers for Policy

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Consumer megatrends have received growing attention in foresight used in the development of technology. The concept of megatrends assists in fulfilling policy goals, in allocating resources and in managing commercial risks. To this aim, we have recognized four consumer megatrends in a project initiated by the Finnish Funding Agency for Technology and Innovation Tekes.

The megatrends have been identified from long term statistics on consumption. They relate to growth in the scope of consumption as a way of life, to developments patterns in households, to relative price changes in goods and services, and to forces holding back consumption.

Within these four megatrends, we have derived 30 arguments which have been evaluated in a survey by technologists and consumers. The results of this survey relate to acceptance, plausibility and interestingness of future scenarios as portrayed by the arguments. We report our more detailed findings in the paper and consider differences in the evaluations of technologists and consumers of particular interest.

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How Does Consumer Behaviour Change? Examples from Energy Conservation

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As global consumer society is rapidly overshooting the limits of the ecosystem, there is a dire need to find new ways to change consumer behaviour. Yet recent history knows few successful examples of reducing, rather than increasing, consumption. However, since the energy crises in the 1970s, there is a long legacy of energy conservation and demand-side management, which is littered with both successes and failures in reducing the consumption of energy. The present paper uses this vast body of literature to identify and illustrate five factors that influence consumer behaviour: awareness, supply, context, habits and community. It draws on decades of success and failure in energy conservation to examine the limits of individualistic notions of consumers as decision makers, and to suggest alternative, more relational ways of examining and influencing consumer behaviour. Drawing on contemporary evidence from an ongoing European research project called CHANGING BEHAVIOUR, we discuss where previous attempts to change energy consumer behaviour have succeeded in making a difference, and where they have stumbled. We highlight ways in which the sociotechnical systems shaping consumption can be changed. We also highlight emerging new ways in which consumers can

join forces to achieve greater power and reach for their actions. This analysis has implications for many different kinds of attempts to build a more sustainable consumer society, including, but not limited to, the need to reduce primary energy consumption and greenhouse gas emissions.

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Building a Peaceful Future

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As far as the present and also past events are concerned, the future may experience some inevitable conflicts and tensions regarding consumers. To reduce such conflicts, one needs to employ some effective conflict resolutions. Yet the effective conflict resolutions are cultural oriented and this issue is neglected in recent future studies. This paper is to attract the scientific attention to the role of culture in the building of a peaceful future and secondly it introduces a methodology for conflict resolution based on cultural priorities.

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POSTER PRESENTATIONS

Posters will be on display throughout the conference. Poster sessions are held during the afternoon coffee breaks. The posters represent different themes of the future of the consumer society. They present e.g. the results from recent Finnish food chain LCA studies which made it possible to compare magnitudes of environmental impacts of different foodstuff. The posters also address motion to establish independent organization for consumer protection in Thailand and a case study of energy use in the agriculture sector of Finland and EU15.

Environmental Impacts of Different Food Products and their Contribution to the Environmental Impacts of Finnish Food Consumption

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Life cycle assessment (LCA), in communication of environmental impacts of different food products in the context of sustainable consumption, is challenging due to the need of understandable and meaningful results for citizens. The results obtained in recent Finnish Foodchain LCA studies made possible to compare magnitudes of environmental impacts of different foodstuff. LCA case studies were carried out by using similar methodology and system boundaries: all stages from the production of farm inputs to retail stores were included as well as cooking. Results were presented by the environmental impact categories and also aggregated based on the methodology behind the Finnish 'Eco-Benchmark' (EB). In the LCIA phase, site-dependent characterization factors were used for aquatic eutrophication and acidification. Other impact categories included in the EB were primary energy demand, global warming potential and tropospheric ozone formation.

Carbon footprint of certain particular Finnish hard cheese is 13,0 kg CO₂-eq/kg cheese, corresponding approximately driving of 60 kilometres. Carbon footprint of marinated chicken product and cucumber (per kg) are under one third of that. Carbon footprints of beer and oat cereals are very small.

Based on the aggregation of mentioned environmental impacts, impacts of cheese gets even more bigger compared to other products. Environmental impacts of chicken product are double against cucumber (per kg). Based on the aggregation of environmental impacts and daily intake quantities, the daily consumption of cheese (30 g/day/person) creates ten times as much environmental impacts as the daily consumption of cucumber (22 g), marinated broiler chicken meat (40 g) two times more compared to the rye bread (83 g), and cheese three times as much as marinated broiler chicken meat. The contribution of different food products to the environmental impacts of Finnish private consumption, based on the methodology behind the Finnish 'Eco-Benchmark' (EB) and Finnish IO tables is also presented.

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Energy Use in the Agriculture Sector of Finland and EU15: an Advanced Sustainability Analysis Case Study

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In this study, the agriculture sector is analyzed by taking into account economic, energy use and land use indicators: in particular the values used refer to the final energy consumption of the agriculture sector (FEC), the value added of the agriculture sector (VAa), the number of people employed in agriculture (EMP) and the Utilized Agricultural Area (UAA). Calculations are carried out using the Advanced Sustainability Analysis (ASA) method, which can be used for explorative data-analysis and scenario writing regarding sustainable development. ASA is a mathematical information system which can be used to analyze sustainable development from different sustainability dimensions. It applies decomposition analysis into the selected indicators, such as land use and value added in this case, and interprets the decomposed factors as drivers either advancing or threatening sustainability in comparison to the base year situation.

This analysis is performed on Finland and EU15, in order to have a comprehensive picture of the situation in the Finnish agricultural sector in comparison to that of Europe. The period of interest covers the years between 1997 and 2005. We seek to investigate the drivers which affect the final energy consumption in agriculture, so as to have a picture of what should be paid attention to for the sustainability of this economic sector to be ensured. From the results obtained some differences can be detected between Finland and EU15: for example, while the UUA has increased steadily in Finland, it has decreased (even if just slightly) in the EU15. The increasing mechanization of the agriculture sector is evident, but it is stronger and more evident for Finland, with values that are more than twice as much those of EU15 for both drivers VA/EMP and EMP/UAA. Overall the selected indicators contribute to increase the FEC of agriculture, but once again this is more marked for Finland than EU15.

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