



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL
TRAINING AT THE UNIVERSITY OF HELSINKI 2005–2010

RC-Specific Evaluation of METEORI – Methodologies, Technologies, Organizations and Innovations

Seppo Saari & Antti Moilanen (Eds.)



Evaluation Panel: Social Sciences

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Title: International Evaluation of Research and Doctoral Training at the University of Helsinki 2005–2010 : RC-Specific Evaluation of METEORI – Methodologies, Technologies, Organizations and Innovations	Type of publication: Evaluations
Summary: Researcher Community (RC) was a new concept of the participating unit in the evaluation. Participation in the evaluation was voluntary and the RCs had to choose one of the five characteristic categories to participate. Evaluation of the Researcher Community was based on the answers to the evaluation questions. In addition a list of publications and other activities were provided by the TUHAT system. The CWTS/Leiden University conducted analyses for 80 RCs and the Helsinki University Library for 66 RCs. Panellists, 49 and two special experts in five panels evaluated all the evaluation material as a whole and discussed the feedback for RC-specific reports in the panel meetings in Helsinki. The main part of this report is consisted of the feedback which is published as such in the report. Chapters in the report: 1. Background for the evaluation 2. Evaluation feedback for the Researcher Community 3. List of publications 4. List of activities 5. Bibliometric analyses The level of the RCs' success can be concluded from the written feedback together with the numeric evaluation of four evaluation questions and the category fitness. More conclusions of the success can be drawn based on the University-level report.	
RC-specific information:	
Main scientific field of research: Social Sciences	RC-specific keywords: Experience, Quality, Collaboration, Human behavior, Multimodality, Education, HCI, Communication, Interaction, Methods
Participation category: 3. Research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation	
RC's responsible person: Nyman, Göte	
Keywords: Research Evaluation, Meta-evaluation, Doctoral Training, Bibliometric Analyses, Researcher Community	

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Foreword

The evaluation of research and doctoral training is being carried out in the years 2010–2012 and will end in 2012. The steering group appointed by the Rector in January 2010 set the conditions for participating in the evaluation and prepared the Terms of Reference to present the evaluation procedure and criteria. The publications and other scientific activities included in the evaluation covered the years 2005–2010.

The participating unit in the evaluation was defined as a Researcher Community (RC). To obtain a critical mass with university-level impact, the number of members was set to range from 20 to 120. The RCs were required to contain researchers in all stages of their research career, from doctoral students to principal investigators (PIs). All in all, 136 Researcher Communities participated in this voluntary evaluation, 5857 persons in total, of whom 1131 were principal investigators. PIs were allowed to participate in two communities in certain cases, and 72 of them used this opportunity and participated in two RCs.

This evaluation enabled researchers to define RCs from the “bottom up” and across disciplines. The aim of the evaluation was not to assess individual performance but a community with shared aims and researcher-training activities. The RCs were able to choose among five different categories that characterised the status and main aims of their research. The steering group considered the process of applying to participate in the evaluation to be important, which led to the establishment of these categories. In addition, providing a service for the RCs to enable them to benchmark their research at the global level was a main goal of the evaluation.

The data for the evaluation consisted of the RCs’ answers to evaluation questions on supplied e-forms and a compilation extracted from the TUHAT – Research Information System (RIS) on 12 April 2011. The compilation covered scientific and other publications as well as certain areas of scientific activities. During the process, the RCs were asked to check the list of publications and other scientific activities and make corrections if needed. These TUHAT compilations are public and available on the evaluation project sites of each RC in the TUHAT-RIS.

In addition to the e-form and TUHAT compilation, University of Leiden (CWTS) carried out bibliometric analyses from the articles included in the Web of Science (WoS). This was done on University and RC levels. In cases where the publication forums of the RC were clearly not represented by the WoS data, the Library of the University of Helsinki conducted a separate analysis of the publications. This was done for 66 RCs representing the humanities and social sciences.

The evaluation office also carried out an enquiry targeted to the supervisors and PhD candidates about the organisation of doctoral studies at the University of Helsinki. This and other documents describing the University and the Finnish higher education system were provided to the panellists.

The panel feedback for each RC is unique and presented as an entity. The first collective evaluation reports available for the whole panel were prepared in July–August 2011. The reports were accessible to all panel members via the electronic evaluation platform in August. Scoring from 1 to 5 was used to complement written feedback in association with evaluation questions 1–4 (scientific focus and quality, doctoral training, societal impact, cooperation) and in addition to the category evaluating the fitness for participation in the evaluation. Panellists used the international level as a point of comparison in the evaluation. Scoring was not expected to go along with a preset deviation.

Each of the draft reports were discussed and dealt with by the panel in meetings in Helsinki (from 11 September to 13 September or from 18 September to 20 September 2011). In these meetings the panels also examined the deviations among the scores and finalised the draft reports together.

The current RC-specific report deals shortly with the background of the evaluation and the terms of participation. The main evaluation feedback is provided in the evaluation report, organised according to the evaluation questions. The original material provided by the RCs for the panellists has been attached to these documents.

On behalf of the evaluation steering group and office, I sincerely wish to thank you warmly for your participation in this evaluation. The effort you made in submitting the data to TUHAT-RIS is gratefully acknowledged by the University. We wish that you find this panel feedback useful in many ways. The bibliometric profiles may open a new view on your publication forums and provide a perspective for discussion on your choice of forums. We especially hope that this evaluation report will help you in setting the future goals of your research.

Johanna Björkroth
Vice-Rector
Chair of the Steering Group of the Evaluation

Steering Group of the evaluation

Steering group, nominated by the Rector of the University, was responsible for the planning of the evaluation and its implementation having altogether 22 meetings between February 2010 and March 2012.

Chair

Vice-Rector, professor **Johanna Björkroth**

Vice-Chair

Professor **Marja Airaksinen**

Chief Information Specialist, Dr **Maria Forsman**

Professor **Arto Mustajoki**

University Lecturer, Dr **Kirsi Pyhältö**

Director of Strategic Planning and Development, Dr **Ossi Tuomi**

Doctoral candidate, MSocSc **Jussi Vauhkonen**

Panel members

CHAIR

Professor Hebe Vessuri

Social anthropology

Venezuelan Institute of Scientific Research, Venezuela

VICE-CHAIR

Professor Christine Heim

Psychology, neurobiology of early-life stress, depression, anxiety, functional somatic disorders

Charité University Medicine Berlin, Germany

Professor Allen Ketcham

Ethics and social philosophy, applied Social philosophy, ethics of business

Texas A&M University – Kingsville, USA

Professor Erno Lehtinen

Education, educational reform

University of Turku, Finland

Professor Enzo Mingione

Urban sociology

University of Milan - Bicocca, Italy

Professor Giovanna Procacci

Political sociology, transformation of citizenship, social rights, social exclusion, immigration policy

University of Milan, Italy

Professor Inger Johanne Sand

Law, public law, legal theory

University of Oslo, Norway

Professor Timo Teräsvirta

Time series econometrics

Aarhus University, Denmark

Professor Göran Therborn

General sociology

University of Cambridge, Great Britain

Professor Liisa Uusitalo

Consumer behaviour (economic & social theory), marketing and communication research

Aalto University, School of Economics, Finland

The panel, independently, evaluated all the submitted material and was responsible for the feedback of the RC-specific reports. The panel members were asked to confirm whether they had any conflict of interests with the RCs. If this was the case, the panel members disqualified themselves in discussion and report writing.

Added expertise to the evaluation was contributed by two members from the Panel of Humanities.

Experts from the Panel of Humanities

Professor Erhard Hinrichs

Professor Pauline von Bonsdorff

EVALUATION OFFICE

Dr Seppo Saari, Doc., Senior Adviser in Evaluation, was responsible for the entire evaluation, its planning and implementation and acted as an Editor-in-chief of the reports.

Dr Eeva Sievi, Doc., Adviser, was responsible for the registration and evaluation material compilations for the panellists. She worked in the evaluation office from August 2010 to July 2011.

MSocSc Paula Ranne, Planning Officer, was responsible for organising the panel meetings and all the other practical issues like agreements and fees and editing a part the RC-specific reports. She worked in the evaluation office from March 2011 to January 2012.

Mr Antti Moilanen, Project Secretary, was responsible for editing the reports. He worked in the evaluation office from January 2012 to April 2012.

TUHAT OFFICE

Provision of the publication and other scientific activity data

Mrs Aija Kaitera, Project Manager of TUHAT-RIS served the project ex officio providing the evaluation project with the updated information from TUHAT-RIS. The TUHAT office assisted in mapping the publications with CWTS/University of Leiden.

MA Liisa Ekebon, Assisting Officer, served in TUHAT-RIS updating the publications for the evaluation. She also assisted the UH/Library analyses.

BA Liisa Jäppinen, Assisting Officer, served in TUHAT-RIS updating the publications for the evaluation.

HELSINKI UNIVERSITY LIBRARY

Provision of the publication analyses

Dr Maria Forsman, Chief Information Specialist in the Helsinki University Library, managed with her 10 colleagues the bibliometric analyses in humanities, social sciences and in other fields of sciences where CWTS analyses were not applicable.

Acronyms and abbreviations applied in the report

External competitive funding

AF - Academy of Finland
TEKES - Finnish Funding Agency for Technology and Innovation
EU - European Union
ERC - European Research Council
International and national foundations
FP7/6 etc. /Framework Programmes/Funding of European Commission

Evaluation marks

Outstanding (5)
Excellent (4)
Very Good (3)
Good (2)
Sufficient (1)

Abbreviations of Bibliometric Indicators

P - Number of publications
TCS - Total number of citations
MCS - Number of citations per publication, excluding self-citations
PNC - Percentage of uncited publications
MNCS - Field-normalized number of citations per publication
MNJS - Field-normalized average journal impact
THCP10 - Field-normalized proportion highly cited publications (top 10%)
INT_COV - Internal coverage, the average amount of references covered by the WoS
WoS - Thomson Reuters Web of Science Databases

Participation category

Category 1. The research of the participating community represents the international cutting edge in its field.

Category 2. The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.

Category 3. The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.

Category 4. The research of the participating community represents an innovative opening.

Category 5. The research of the participating community has a highly significant societal impact.

Research focus areas of the University of Helsinki

Focus area 1: The basic structure, materials and natural resources of the physical world

Focus area 2: The basic structure of life

Focus area 3: The changing environment - clean water

Focus area 4: The thinking and learning human being

Focus area 5: Welfare and safety

Focus area 6: Clinical research

Focus area 7: Precise reasoning

Focus area 8: Language and culture

Focus area 9: Social justice

Focus area 10: Globalisation and social change

1 Introduction to the Evaluation

1.1 RC-specific evaluation reports

The participants in the evaluation of research and doctoral training were Researcher Communities (hereafter referred to as the RC). The RC refers to the group of researchers who registered together in the evaluation of their research and doctoral training. Preconditions in forming RCs were stated in the Guidelines for the Participating Researcher Communities. The RCs defined themselves whether their compositions should be considered well-established or new.

It is essential to emphasise that the evaluation combines both meta-evaluation¹ and traditional research assessment exercise and its focus is both on the research outcomes and procedures associated with research and doctoral training. The approach to the evaluation is enhancement-led where self-evaluation constituted the main information. The answers to the evaluation questions formed together with the information of publications and other scientific activities an entity that was to be reviewed as a whole.

The present evaluation recognizes and justifies the diversity of research practices and publication traditions. Traditional Research Assessment Exercises do not necessarily value high quality research with low volumes or research distinct from mainstream research. It is challenging to expose the diversity of research to fair comparison. To understand the essence of different research practices and to do justice to their diversity was one of the main challenges of the present evaluation method. Understanding the divergent starting points of the RCs demanded sensitivity from the evaluators.

1.2 Aims and objectives in the evaluation

The aims of the evaluation are as follows:

- to improve the level of research and doctoral training at the University of Helsinki and to raise their international profile in accordance with the University's strategic policies. The improvement of doctoral training should be compared to the University's policy.²
- to enhance the research conducted at the University by taking into account the diversity, originality, multidisciplinary nature, success and field-specificity,
- to recognize the conditions and prerequisites under which excellent, original and high-impact research is carried out,
- to offer the academic community the opportunity to receive topical and versatile international peer feedback,
- to better recognize the University's research potential.
- to exploit the University's TUHAT research information system to enable transparency of publishing activities and in the production of reliable, comparable data.

1.3 Evaluation method

The evaluation can be considered as an enhancement-led evaluation. Instead of ranking, the main aim is to provide useful information for the enhancement of research and doctoral training of the participating RCs. The comparison should take into account each field of science and acknowledge their special character.

¹ The panellists did not read research reports or abstracts but instead, they evaluated answers to the evaluation questions, tables and compilations of publications, other scientific activities, bibliometrics or comparable analyses.

² [Policies on doctoral degrees and other postgraduate degrees at the University of Helsinki.](#)

The comparison produced information about the present status and factors that have led to success. Also challenges in the operations and outcomes were recognized.

The evaluation approach has been designed to recognize better the significance and specific nature of researcher communities and research areas in the multidisciplinary top-level university. Furthermore, one of the aims of the evaluation is to bring to light those evaluation aspects that differ from the prevalent ones. Thus the views of various fields of research can be described and research arising from various starting points understood better. The doctoral training is integrated into the evaluation as a natural component related to research. Operational processes of doctoral training are being examined in the evaluation.

Five stages of the evaluation method were:

1. Registration – Stage 1
2. Self-evaluation – Stage 2
3. TUHAT³ compilations on publications and other scientific activities⁴
4. External evaluation
5. Public reporting

1.4 Implementation of the external evaluation

Five Evaluation Panels

Five evaluation panels consisted of independent, renowned and highly respected experts. The main domains of the panels are:

1. biological, agricultural and veterinary sciences
2. medicine, biomedicine and health sciences
3. natural sciences
4. humanities
5. social sciences

The University invited 10 renowned scientists to act as chairs or vice-chairs of the five panels based on the suggestions of faculties and independent institutes. Besides leading the work of the panel, an additional role of the chairs was to discuss with other panel chairs in order to adopt a broadly similar approach. The panel chairs and vice-chairs had a pre-meeting on 27 May 2011 in Amsterdam.

The panel compositions were nominated by the Rector of the University 27 April 2011. The participating RCs suggested the panel members. The total number of panel members was 50. The reason for a smaller number of panellists as compared to the previous evaluations was the character of the evaluation as a meta-evaluation. The panellists did not read research reports or abstracts but instead, they evaluated answers to the evaluation questions, tables and compilations of publications, other scientific activities, bibliometrics and comparable analyses.

The panel meetings were held in Helsinki:

- On 11–13 September 2011: (1) biological, agricultural and veterinary sciences, (2) medicine, biomedicine and health sciences and (3) natural sciences.
- On 18–20 September 2011: (4) humanities and (5) social sciences.

³ TUHAT (acronym) of Research Information System (RIS) of the University of Helsinki

⁴ Supervision of thesis, prizes and awards, editorial work and peer reviews, participation in committees, boards and networks and public appearances.

1.5 Evaluation material

The main material in the evaluation was the RCs' self-evaluations that were qualitative in character and allowed the RCs to choose what was important to mention or emphasise and what was left unmentioned.

The present evaluation is exceptional at least in the Finnish context because it is based on both the evaluation documentation (self-evaluation questions, publications and other scientific activities) and the bibliometric reports. All documents were delivered to the panellists for examination.

Traditional bibliometrics can be reasonably done mainly in medicine, biosciences and natural sciences when using the Web of Science database, for example. Bibliometrics, provided by CWTS/The Centre for Science and Technology Studies, University of Leiden, cover only the publications that include WoS identification in the TUHAT-RIS.

Traditional bibliometrics are seldom relevant in humanities and social sciences because the international comparable databases do not store every type of high quality research publications, such as books and monographs and scientific journals in other languages than English. The Helsinki University Library has done analysis to the RCs, if their publications were not well represented in the Web of Science databases (RCs should have at least 50 publications and internal coverage of publications more than 40%) – it meant 58 RCs. The bibliometric material for the evaluation panels was available in June 2011. The RC-specific bibliometric reports are attached at the end of each report.

The panels were provided with the evaluation material and all other necessary background information, such as the basic information about the University of Helsinki and the Finnish higher education system.

Evaluation material

1. Registration documents of the RCs for the background information
2. Self evaluation material – answers to the evaluation questions
3. Publications and other scientific activities based on the TUHAT RIS:
 - 3.1. statistics of publications
 - 3.2. list of publications
 - 3.3. statistics of other scientific activities
 - 3.4. list of other scientific activities
4. Bibliometrics and comparable analyses:
 - 4.1. Analyses of publications based on the verification of TUHAT-RIS publications with the Web of Science publications (CWTS/University of Leiden)
 - 4.2. Publication statistics analysed by the Helsinki University Library - mainly for humanities and social sciences
5. University level survey on doctoral training (August 2011)
6. University level analysis on publications 2005–2010 (August 2011) provided by CWTS/University of Leiden

Background material

University of Helsinki

- [Basic information about the University of the Helsinki](#)
- [The structure of doctoral training at the University of Helsinki](#)
- Previous evaluations of research at the University of Helsinki – links to the reports: [1998](#) and [2005](#)

The Finnish Universities/Research Institutes

- [Finnish University system](#)
- [Evaluation of the Finnish National Innovation System](#)
- [The State and Quality of Scientific Research in Finland. Publication of the Academy of Finland 9/09.](#)

The evaluation panels were provided also with other relevant material on request before the meetings in Helsinki.

1.6 Evaluation questions and material

The participating RCs answered the following evaluation questions which are presented according to the evaluation form. In addition, TUHAT RIS was used to provide the **additional material** as explained. For giving the feedback to the RCs, the panellists received the evaluation feedback form constructed in line with the evaluation questions:

1. Focus and quality of the RC's research

- Description of
 - the RC's research focus.
 - the quality of the RC's research (incl. key research questions and results)
 - the scientific significance of the RC's research in the research field(s)
- Identification of the ways to strengthen the focus and improve the quality of the RC's research

The additional material: TUHAT compilation of the RC's publications, analysis of the RC's publications data (provided by University of Leiden and the Helsinki University Library)

A written feedback from the aspects of: scientific quality, scientific significance, societal impact, innovativeness

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

2. Practises and quality of doctoral training

- Organising of the doctoral training in the RC. Description of the RC's principles for:
 - recruitment and selection of doctoral candidates
 - supervision of doctoral candidates
 - collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes
 - good practises and quality assurance in doctoral training
 - assuring of good career perspectives for the doctoral candidates/fresh doctorates
- Identification of the RC's strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.

The additional material: TUHAT compilation of the RC's other scientific activities/supervision of doctoral dissertations

A written feedback from the aspects of: processes and good practices related to leadership and management

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

3. The societal impact of research and doctoral training

- Description on how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).
- Identification of the ways to strengthen the societal impact of the RC's research and doctoral training.

The additional material: TUHAT compilation of the RC's other scientific activities.

A written feedback from the aspects of: societal impact, national and international collaboration, innovativeness

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

4. International and national (incl. intersectoral) research collaboration and researcher mobility

- Description of
 - the RC's research collaborations and joint doctoral training activities
 - how the RC has promoted researcher mobility
- Identification of the RC's strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.

A written feedback from the aspects of: scientific quality, national and international collaboration

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

5. Operational conditions

- Description of the operational conditions in the RC's research environment (e.g. research infrastructure, balance between research and teaching duties).
- Identification of the RC's strengths and challenges related to operational conditions, and the actions planned for their development.

A written feedback from the aspects of: processes and good practices related to leadership and management

- Strengths
- Areas of development
- Other remarks
- Recommendations

6. Leadership and management in the researcher community

- Description of
 - the execution and processes of leadership in the RC
 - how the management-related responsibilities and roles are distributed in the RC
 - how the leadership- and management-related processes support
 - high quality research
 - collaboration between principal investigators and other researchers in the RC
 - the RC's research focus
 - strengthening of the RC's know-how
- Identification of the RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes

7. External competitive funding of the RC

- The RCs were asked to provide information of such external competitive funding, where:
 - the funding decisions have been made during 1.1.2005-31.12.2010, and
 - the administrator of the funding is/has been the University of Helsinki
- On the e-form the RCs were asked to provide:
 - 1) The relevant funding source(s) from a given list (Academy of Finland/Research Council, TEKES/The Finnish Funding Agency for Technology and Innovation , EU, ERC, foundations, other national funding organisations, other international funding organisations), and
 - 2) The total sum of funding which the organisation in question had decided to allocate to the RCs members during 1.1.2005–31.12.2010.

Competitive funding reported in the text is also to be considered when evaluating this point.

A written feedback from the aspects of: scientific quality, scientific significance, societal impact, innovativeness, future significance

- Strengths
- Areas of development
- Other remarks
- Recommendations

8. The RC's strategic action plan for 2011–2013

- RC's description of their future perspectives in relation to research and doctoral training.

A written feedback from the aspects of: scientific quality, scientific significance, societal impact, processes and good practices related to leadership and management, national and international collaboration, innovativeness, future significance

- Strengths
- Areas of development

- Other remarks
- Recommendations

9. Evaluation of the category of the RC in the context of entity of the evaluation material (1-8)

The RC's fitness to the chosen participation category

A written feedback evaluating the RC's fitness to the chosen participation category

- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

10. Short description of how the RC members contributed the compilation of the stage 2 material

Comments on the compilation of evaluation material

11. How the UH's focus areas are presented in the RC's research?

Comments if applicable

12. RC-specific main recommendations based on the previous questions 1-11

13. RC-specific conclusions

1.7 Evaluation criteria

The panellists were expected to give evaluative and analytical feedback to each evaluation question according to their aspects in order to describe and justify the quality of the submitted material. In addition, the evaluation feedback was asked to be pointed out the level of the performance according to the following classifications:

- outstanding (5)
- excellent (4)
- very good (3)
- good (2)
- sufficient (1)

Evaluation according to the criteria was to be made with thorough consideration of the entire evaluation material of the RC in question. Finally, in questions 1-4 and 9, the panellists were expected to classify their written feedback into one of the provided levels (the levels included respective descriptions, 'criteria'). Some panels used decimals in marks. The descriptive level was interpreted according to the integers and not rounding up the decimals by the editors.

Description of criteria levels

Question 1 – FOCUS AND QUALITY OF THE RC'S RESEARCH

Classification: Criteria (level of procedures and results)

Outstanding quality of procedures and results (5)

Outstandingly strong research, also from international perspective. Attracts great international interest with a wide impact, including publications in leading journals and/or monographs published by leading international publishing houses. The research has world leading qualities. The research focus, key research questions scientific significance, societal impact and innovativeness are of outstanding quality.

In cases where the research is of a national character and, in the judgement of the evaluators, should remain so, the concepts of "international attention" or "international impact" etc. in the grading criteria above may be replaced by "international comparability".

Operations and procedures are of outstanding quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are in alignment with the documentation. The ambition to develop the community together is of outstanding quality.

Excellent quality of procedures and results (4)

Research of excellent quality. Typically published with great impact, also internationally. Without doubt, the research has a leading position in its field in Finland.

Operations and procedures are of excellent quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of excellent quality.

Very good quality of procedures and results (3)

The research is of such very good quality that it attracts wide national and international attention.

Operations and procedures are of very good quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of very good quality.

Good quality of procedures and results (2)

Good research attracting mainly national attention but possessing international potential, extraordinarily high relevance may motivate good research.

Operations and procedures are of good quality, shared occasionally in the community. The improvement of research and other efforts are occasionally documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of good quality.

Sufficient quality of procedures and results (1)

In some cases the research is insufficient and reports do not gain wide circulation or do not have national or international attention. Research activities should be revised.

Operations and procedures are of sufficient quality, shared occasionally in the community. The improvement of research and other efforts are occasionally documented and operations and practices are to some extent in alignment with the documentation. The ambition to develop the community together is of sufficient quality.

Question 2 – DOCTORAL TRAINING

Question 3 – SOCIETAL IMPACT

Question 4 – COLLABORATION

Classification: Criteria (level of procedures and results)

Outstanding quality of procedures and results (5)

Procedures are of outstanding quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are in alignment with the documentation. The ambition to develop the community together is of outstanding quality. The procedures and results are regularly evaluated and the feedback has an effect on the planning.

Excellent quality of procedures and results (4)

Procedures are of excellent quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of excellent quality. The procedures and outcomes are evaluated and the feedback has an effect on the planning.

Very good quality of procedures and results (3)

Procedures are of very good quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and

management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of very good quality.

Good quality of procedures and results (2)

Procedures are of good quality, shared occasionally in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of good quality.

Sufficient quality of procedures and results (1)

Procedures are of sufficient quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are occasionally documented and operations and practices are to some extent in alignment with the documentation. The ambition to develop the community together is of sufficient quality.

Question 9 – CATEGORY

Participation category – fitness for the category chosen

The choice and justification for the chosen category below should be reflected in the RC's responses to the evaluation questions 1–8.

1. *The research of the participating community represents the international cutting edge in its field.*
2. *The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.*
3. *The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.* The research is of high quality and has great significance and impact in its field. However, the generally used research evaluation methods do not necessarily shed sufficient light on the merits of the research.
4. *The research of the participating community represents an innovative opening.* A new opening can be an innovative combination of research fields, or it can be proven to have a special social, national or international demand or other significance. Even if the researcher community in its present composition has yet to obtain proof of international success, its members can produce convincing evidence of the high level of their previous research.
5. *The research of the participating community has a highly significant societal impact.* The participating researcher community is able to justify the high social significance of its research. The research may relate to national legislation, media visibility or participation in social debate, or other activities promoting social development and human welfare. In addition to having societal impact, the research must be of a high standard.

An example of outstanding fitness for category choice (5)⁵

The RC's representation and argumentation for the chosen category were convincing. The RC recognized its real capacity and apparent outcomes in a wider context to the research communities. The specific character of the RC was well-recognized and well stated in the responses. The RC fitted optimally for the category.

- Outstanding (5)
- Excellent (4)
- Very good (3)
- Good (2)
- Sufficient (1)

The above-mentioned definition of outstanding was only an example in order to assist the panellists in the positioning of the classification. There was no exact definition for the category fitness.

⁵ The panels discussed the category fitness and made the final conclusions of the interpretation of it.

1.8 Timetable of the evaluation

The main timetable of the evaluation:

- | | |
|--|-----------------------|
| 1. Registration | November 2010 |
| 2. Submission of self-evaluation materials | January–February 2011 |
| 3. External peer review | May–September 2011 |
| 4. Published reports | March–April 2012 |
| - University level public report | |
| - RC specific reports | |

The entire evaluation was implemented during the university's strategy period 2010–2012. The preliminary results were available for the planning of the following strategy period in late autumn 2011. The evaluation reports will be published in March/April 2012. More detailed time schedule is published in the University report.

1.9 Evaluation feedback – consensus of the entire panel

The panellists evaluated all the RC-specific material before the meetings in Helsinki and mailed the draft reports to the evaluation office. The latest interim versions were on-line available to all the panellists on the Wiki-sites. In September 2011, in Helsinki the panels discussed the material, revised the first draft reports and decided the final numeric evaluation. After the meetings in Helsinki, the panels continued working and finalised the reports before the end of November 2011. The final RC-specific reports are the consensus of the entire panel.

The evaluation reports were written by the panels independently. During the editing process, the evaluation office requested some clarifications from the panels when necessary. The tone and style in the reports were not harmonized in the editing process. All the reports follow the original texts written by the panels as far as it was possible.

The original evaluation material of the RCs, provided for the panellists is attached at the end of the report. It is essential to notice that the exported lists of publications and other scientific activities depend how the data was stored in the TUHAT-RIS by the RCs.

2 Evaluation feedback

2.1 Focus and quality of the RC's research

- *Description of*
 - *the RC's research focus*
 - *the quality of the RC's research (incl. key research questions and results)*
 - *the scientific significance of the RC's research in the research field(s)*
 - *Identification of the ways to strengthen the focus and improve the quality of the RC's research*
- ASPECTS: Scientific quality, scientific significance, societal impact, innovativeness*

The description of the community is not perfectly clear to the evaluators, but we have interpreted the information in the following way:

The community consists of four research projects that have somewhat different roles. The main project seems to be PoEM (Psychology of evolving media and technology), whereas SPVRG (Self-presentation and values-group and TEdu (Technology in Education) seem to be more or less continuation of earlier research of the Institute of Behavioral Sciences and provide methodological support and know-how to the PoEM. The fourth project 3I (Intelligent Interactive Informatics) consists mainly of consultancy on applications developed together with enterprises.

The strengths of the community consist of taking the challenging human - technology relationship under closer investigation as well as opening new ways to cooperation with industries and financing the research. On the other hand, this emphasis on applications causes also weaknesses in the theoretical basis and rigor of the research.

Consequently, giving somewhat more emphasis on the theoretical and methodological issues would help in order to keep in line with the high scientific standard of experimental research of the Institute of Behavioral Sciences so far. Also, without interesting theoretical questions and strict methodology the community cannot advance doctoral education. Now it seems that the focus has maybe been driven too soon toward practical enquiries and applications. It is understandable from the practical perspective since there is great demand for psychological applications on the market, but even then, a more lasting interest will be dependent on scientifically tested theoretical findings.

The refereed publications of the listed RC participants are extensive, concentrating mainly on the permanently employed post-doctoral persons (e.g. Verkasalo, Jokinen, Lakkala, Nyman). However, for the earlier years, the list contains publications from the RCs' earlier projects which are not directly connected with the present main project. Only few refereed articles have appeared that clearly belong to the present project on human aspects of the new digital technologies. However, recent international conference participation gives a promise of higher number of refereed journal articles on the topic in the future.

Numeric evaluation: 3 (Very good)

2.2 Practises and quality of doctoral training

- *Organising of the doctoral training in the RC. Description of the RC's principles for:*
 - *recruitment and selection of doctoral candidates*
 - *supervision of doctoral candidates*
 - *collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes*
 - *good practises and quality assurance in doctoral training*
 - *assuring of good career perspectives for the doctoral candidates/fresh doctorates*
- *Identification of the RC's strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.*

- *Additional material: TUHAT compilation of the RC's other scientific activities/supervision of doctoral dissertations*

ASPECTS: Processes and good practices related to leadership and management

A strength of METEORI is that the topics selected and the extensive cooperation with industry applications obviously interests young people who possible later on get interested in research work and become doctoral applicants.

The community has no systematic practices for recruiting and selecting new doctoral students at a yearly basis. Neither is there any systematic program or doctoral education in the form of obligatory doctoral courses for those accepted to the program. Doctoral studies consist mainly of individual dissertation research work.

The lack of systematic doctoral program prevents persons from other disciplines or from abroad to apply. Also, the own doctoral students would also benefit from an institute level doctoral program with mandatory course work in theory and methodology.

A further problem with this specific community is that there are not enough resources for advisory work. With only 2 professors, one lecturer and a few post-doctoral researchers a proper adviser work is difficult. The project leader reports that he has advised 13 doctoral candidates during the 5-6 year period. It is obvious that the many interesting practical and consultancy projects together with the industry have so far not supported doctoral training. Instead, the many practical contacts have been beneficial to students by increasing their opportunities for employment.

Numeric evaluation: 3 (Very good)

2.3 The societal impact of research and doctoral training

- *Description on how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).*
- *Identification of the ways to strengthen the societal impact of the RC's research and doctoral training.*
- *Additional material: TUHAT compilation of the RC's other scientific activities.*

ASPECTS: Societal impact, national and international collaboration, innovativeness

Societal needs and market interests for psychological applications and theory are extensive in many fields as shown in the good and abundant societal relationships of the METEORI community.

This is the area in which METEORI has been very successful and innovative as compared with many other psychology departments or communities. It is far from easy to create good, long-lasting relations with industry and tailor the research in a way that brings utility to both parts.

Hopefully, in the future, the cooperation will become less short-term based in order to better support also the university's interests of theory development and doctoral education. Now it has already shown to support very well the education and employment of graduated masters.

[Additional remark: Within METEORI some ideas have proposed to set up a commercial research unit for practical, applied research. It is however doubtful whether such unit could make any net profits to finance basic research at the university considering the many administrative, marketing and research costs of the unit itself. If there is a market for applied psychological & engineering research, it should maybe be private and not part of the university. In several other universities such business units have sooner or later become incorporated and taken apart from the university.]

Numeric evaluation: 4 (Excellent)

2.4 International and national (incl. intersectoral) research collaboration and researcher mobility

- *Description of*
 - *the RC's research collaborations and joint doctoral training activities*
 - *how the RC has promoted researcher mobility*
- *Identification of the RC's strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.*

ASPECTS: Scientific quality, national and international collaboration

METEORI has tight research connection with several Finnish universities. Nordic and European connections consist mainly of conferences and doctoral training courses.

Moreover, individual METEORI researchers at the post-doctor level have a very broad network with researchers at universities all over the world (9 Universities in Finland and 52 Universities internationally), and also especially with persons and units working outside universities (total of 43). However, so far common established research projects in the main field POEM are still lacking. It is also difficult to maintain very tight relationships with so many actors at the same time.

European Union has supported research by a considerable amount. However, it is not clear to which of the present METEORI projects EU has provided funding.

Numeric evaluation: 4 (Excellent)

2.5 Operational conditions

- *Description of the operational conditions in the RC's research environment (e.g. research infrastructure, balance between research and teaching duties).*
- *Identification of the RC's strengths and challenges related to operational conditions, and the actions planned for their development.*

ASPECTS: Processes and good practices related to leadership and management

As mentioned before, it appears there are too few academic positions to provide sufficient teaching and supervision.

The technical resources of the RC to conduct their work seem to be strong and supported through external funding and collaborations. There are several laboratories in place as well as computer platforms for web-based studies. There are also field studies in progress. The infrastructure for these studies seems to be in place and seems to work quite effectively with a high throughput of study subjects.

The RC states that they have to better balance industry based work versus traditional academic research and education. This is clearly an area of development.

2.6 Leadership and management in the researcher community

- *Description of*
 - *the execution and processes of leadership in the RC*
 - *how the management-related responsibilities and roles are distributed in the RC*
 - *how the leadership- and management-related processes support*
 - *high quality research*
 - *collaboration between principal investigators and other researchers in the RC*
 - *the RC's research focus*
 - *strengthening of the RC's know-how*
- *Identification of the RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes*

ASPECTS: Processes and good practices related to leadership and management

The leadership of the RC is described as “self-organizing” and “project-oriented”. There is no top-down management of the RC. This is done on purpose to allow the RF to grow independently of boundaries and to give young people an equal voice in the sense of democracy. While this approach is generally recommendable, it needs to be determined how well it works. To our understanding, METEORI develops software and platforms for collaboration and should use these same tools in their own organizational management.

2.7 External competitive funding of the RC

- *The RCs were asked to provide information of such external competitive funding, where:*
 - *the funding decisions have been made during 1.1.2005–31.12.2010, and*
 - *the administrator of the funding is/has been the University of Helsinki*
- *On the e-form the RCs were asked to provide:*
 - 1) *The relevant funding source(s) from a given list (Academy of Finland/Research Council, TEKES/The Finnish Funding Agency for Technology and Innovation, EU, ERC, foundations, other national funding organisations, other international funding organizations), and*
 - 2) *The total sum of funding which the organisation in question had decided to allocate to the RCs members during 1.1.2005–31.12.2010.*

Competitive funding reported in the text is also to be considered when evaluating this point.

ASPECTS: Scientific quality, scientific significance, societal impact, innovativeness and future significance

Rather ample external competitive funding to individual RC members has come from the Academy, TEKES (Industry) and European Union.

However, it remains unclear how much of this funding is devoted to the present projects of METEORI. It can be assumed that at least the TEKES funding has been directed to the human-technology related projects.

The TEKES funding is usually connected to applied research only, and obviously this has directed the research into a practical direction. In a small unit, such as METEORI, this can restrict somewhat the unit's own choices.

2.8 The RC's strategic action plan for 2011–2013

- *RC's description of their future perspectives in relation to research and doctoral training.*

ASPECTS: Scientific quality, scientific significance, societal impact, processes and good practices related to leadership and management, national and international collaboration, innovativeness, future significance

METEORI states rather cursory strategy goals such as “strengthening the ‘ecosystem’ of both scientific and applied research”.

METEORI's strength is its willingness to balance between basic research and applications and consultancy. The main interest has been so far in emphasizing applications research, but how does the community see its future?

No priorities or focus on certain theoretical problems are defined in the strategy plan. Neither are there given any numeric goals e.g. for the number of published articles in refereed journals /person/year, or the number of doctoral degrees in the next 5 years.

There are no plans of how to raise the scientific quality of research, or develop the recruitment process and doctoral program.

2.9 Evaluation of the category of the RC in the context of entity of the evaluation material (1-8)

The RC's fitness to the chosen participation category.

Category 3. The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.

Fitness for category 3 is good or very good. Also, category 4 could have been the right choice.

Numeric evaluation: 4 (Excellent)

2.10 Short description of how the RC members contributed the compilation of the stage 2 material

—

2.11 How the UH's focus areas are presented in the RC's research

Focus area 4: The thinking and learning human being

Category 'The Thinking and Learning Human Being' seems relatively fitting.

2.12 RC-specific main recommendations

In sum: A more coherent and detailed problem definition, more focus on the theories and research methods applied, and somewhat more restrictive attitude toward including too many practical applications and new forms of cooperation with industry would benefit the METEORI community at this stage of theory development and with given leadership resources.

We recommend a somewhat stricter and systematic selection procedure for doctoral candidates as well as a more systematic common doctoral program in the form of theory and methodology courses. However, these measures should be planned at the institute level (Institute of Behavioral Sciences) and not for each research community or project separately.

The doctoral training of this specific RC should perhaps focus on the specific multidisciplinary aspect of this RC's work and present a plan to cross-train between psychology and engineering sciences by including doctoral students from both fields?

2.13 RC-specific conclusions

METEORI is the most practice oriented research community in social sciences and it works in close cooperation with industries and their product planning. This helps students to learn how to apply their knowledge to practical problems. However, the chosen policy is less beneficial as to the theory development and doctoral education, since so much time and effort goes to creating and maintaining the business contacts. In the long, it would maybe be more beneficial for both parties to find a better balance between the serious university research and the many business applications.

3 Appendices

- A. Original evaluation material
 - a. Registration material – Stage 1
 - b. Answers to evaluation questions – Stage 2
 - c. List of publications
 - d. List of other scientific activities
- B. Bibliometric analyses
 - a. Analysis provided by CWTS/University of Leiden
 - b. Analysis provided by Helsinki University Library (66 RCs)



International evaluation of research and doctoral training
at the University of Helsinki 2005-2010

RC-SPECIFIC MATERIAL FOR THE PEER REVIEW

NAME OF THE RESEARCHER COMMUNITY:

Methodologies, Technologies, Organizations and Innovations (METEORI)

LEADER OF THE RESEARCHER COMMUNITY:

Professor Göte Nyman, Institute of Behavioural Sciences

RC-SPECIFIC MATERIAL FOR THE PEER REVIEW:

- Material submitted by the RC at stages 1 and 2 of the evaluation
 - STAGE 1 material: RC's registration form (incl. list of RC participants in an excel table)
 - STAGE 2 material: RC's answers to evaluation questions
- TUHAT compilations of the RC members' publications 1.1.2005-31.12.2010
- TUHAT compilations of the RC members' other scientific activities 1.1.2005-31.12.2010
- Analysis of publications data carried out by both CWTS and UH Library – results of UH Library analysis will be available by the end of June 2011

NB! Since Web of Science(WoS)-based bibliometrics does not provide representative results for most RCs representing humanities, social sciences and computer sciences, the publications of these RCs will be analyzed by the UH Library (results available by the end of June, 2011)



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE
UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 1 MATERIAL (registration form)

1 RESPONSIBLE PERSON

Name: Nyman, Göte

E-mail:

Phone: +358505216578

Affiliation: Institute of Behavioural Sciences

Street address: Siltavuorenpenger 1A

2 DESCRIPTION OF THE PARTICIPATING RESEARCHER COMMUNITY (RC)

Name of the participating RC (max. 30 characters): Methodologies, Technologies, Organizations and Innovations

Acronym for the participating RC (max. 10 characters): METEORI

Description of the operational basis in 2005-2010 (eg. research collaboration, joint doctoral training activities) on which the RC was formed (MAX. 2200 characters with spaces): METEORI consists of four project groups: POEM (Psychology of Evolving Media and technology), SPVRG (Self-presentation and Values Research Group), TEdu (Technology in Education), and 3I (Intelligent Interactive Informatics). These all share an interest towards human behavior in complex environments and its methodological understanding. The leader of the METEORI is the formal supervisor in three of the groups included. POEM studies human technology- and media related behaviors and quality experiences. Basic research and application contexts include visual quality of cameras, displays, movies (3D/2D), digital and print media, experience of digital games and collaborative innovation. SPVRG studies value dependent behaviors and aims at predicting human behavior in different contexts. It applies personality psychology to specify the relevant individual difference variables, like personal values for that purpose. In METEORI it has a significant method contribution, which supports the other three entities. TEdu investigates the usage of modern digital technologies in schools and higher education. The main research interests are the promotion of technology-enhanced knowledge practices in educational settings, the development of schools through technology, teacher networking, and the development of digital competence. 3I has developed theories and methods concerning multimodal interaction, dialogue systems, conversational corpus collection, data analysis and annotation. It uses computational methodology and novel distributed technology to investigate natural language communication, social affective signaling and the development of human-machine interaction in ubiquitous technological context. All the research groups in METEORI research community deal with methodologically demanding environments. The research is conducted in authentic contents like everyday life situations, educational settings and virtual environments. POEM, TEdu, and SPVRG have a long history of collaboration, especially in method development and education. 3I is a fresh opening with promising synergies in ongoing HCI-related projects (game behavior, collaborative innovation).



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RC-SPECIFIC STAGE 1 MATERIAL (registration form)

3 SCIENTIFIC FIELDS OF THE RC

Main scientific field of the RC's research: social sciences

RC's scientific subfield 1: Psychology

RC's scientific subfield 2: Behavioral Sciences

RC's scientific subfield 3: Language and Linguistics Theory

RC's scientific subfield 4: Ergonomics

Other, if not in the list:

4 RC'S PARTICIPATION CATEGORY

Participation category: 3. Research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation

Justification for the selected participation category (MAX. 2200 characters with spaces): METEORI is a practice- and application-oriented RC focusing on human aspects in new digital technologies. The evolving technology challenges the understanding of the emerging phenomena in human behaviour, social practices and societal changes. Specific research fields are, e.g., new digital and printed media, technology-rich educational environments, digital games, 2D/3D movies, HCI applications and distributed collaboration. All these require multidisciplinary approach and new methodological solutions. The development of hybrid, qualitative/quantitative and mixed methodologies for demanding contexts in collaboration in POEM and TEdu has benefited from the method competencies of SPVRG. For example, the IBQ (Interpretation Based Quality) method developed at POEM has been applied in numerous international contexts. The obtained knowledge is typically applied on a very large, often global, scale and has a strong practical impact. Good examples are the exceptional cases of supporting Nokia in camera development, and the paper manufacturer M-real in their magazine- and package-related product development. TEdu has created research for supporting educational practices with digital technology, e.g., in an extensive EU-supported KP-Lab -project in higher education and workplaces, and in a large Finnish educational research and development project (OPTEK). 3I has created computational methods, such as an experimental Google web application named AELRED (App Engine Language Resource Editions) which serves up English literary texts with an optional range of linguistic annotations including word frequencies, concordances, part-of-speech tagging, shallow parsing, and word sense definitions from WordNet. 3I has also collected, analysed, and annotated conversational video data that allows the analysis of complex behavior in human-human communication and human-technology interaction. The results of METEORI projects are reported and utilized on the specific application fields for practitioners, but also published on professional and scientific forums like the leading conferences and scientific journals.

5 DESCRIPTION OF THE RC'S RESEARCH AND DOCTORAL TRAINING

Public description of the RC's research and doctoral training (MAX. 2200 characters with spaces): METEORI has its main impact on competitive international and national industrial, media, education and technology contexts, e.g. mobile camera technology, 3D display and movie development, magazine and



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 1 MATERIAL (registration form)

package industry R&D, game industry, educational technology, virtual collaboration, natural language communication, social affective signaling, and the development of human-machine interaction in ubiquitous technological context. METEORI consists of approximately 40 researcher and research aids yearly. Currently four doctoral students of METEORI have funding from UCIT (User Centered Information Technology) doctoral school. In addition to these, the leader of METEORI is the supervisor of 13 other doctoral students and TEdu has two doctoral students. Moreover, METEORI/POEM has prepared an application as a partner in one new doctoral school: "Doctoral program on Intelligent, autonomous machine systems and processes" (DIAS) coordinated by Tampere University of Technology and is also actively engaged with the Graduate School in Educational Technology and Engineering Education Research (ETEER), coordinated by the Aalto University. By teaching collaboration skills needed in industry and business –related work METEORI has helped its young researchers to find jobs in relevant industries. POEM has organized together with Nokia, Aalto and Tampere University of Technology a workshop on image quality studies. 3I group has been involved in extensive PhD teaching activities in an international context. It has delivered tutorials dealing with intelligent interaction management, UIMA framework, and annotation interchange in 10 authoritative international conferences, and organized and lectured in two European PhD-level summer schools. It will also organize a Nordic Doctoral Course Feedback, Communicative Gesturing, and Gazing in May 2011 in Helsinki. The leader of 3I is a supervisor in Finnish Graduate School in Language Studies LANGNET since 2009. Principal investigator of TEdu runs every year a seminar for doctoral and master students which supports the methodological solutions of their theses.

Significance of the RC's research and doctoral training for the University of Helsinki (MAX. 2200 characters with spaces): METEORI has been exceptionally effective when it is contrasted to the resources provided by UH: there is one professor (leader of POEM), one senior University Lecturer, one University Instructor, and one teaching coordinator (SPVRG). However, altogether 50 people, which all have been paid by external funding, have been participating in METEORI projects (2005-2010). In last three years, METEORI has produced 62/48 refereed journal/conference articles and acquired a budget of 3,9M€, of which a large part has come from the industry. In addition, the principal investigator of TEdu has co-ordinated Knowledge Practices Laboratory (KP-Lab, 2005-2011), a project with a 14M€ budget and an EU support of 11,4M€, of which 1,2M€ to University of Helsinki. A good example of METEORI funded research is digital game and virtual environment studies conducted in POEM. Between 2005-2010 there has been only one 2,5 year-period of UCIT funding for this research. With a wise economical planning POEM has produced four Master's theses, one Licentiate thesis and soon one Doctoral thesis of games and VE's. Empirical data collected from games and VEs exceeds 4000 participants and has produced 30 publications. These publications have received both academic and industrial interest in multidisciplinary fields. POEM researchers are asked to do reviews in major conferences in the field (Computer-Human Interaction) and journals (Simulation and Games), signaling from the high quality work in POEM. Ongoing international collaboration with Waseda University (Japan) on 3D gaming provides industrial opportunities to apply academically high standard research into practice. The leader of POEM has been the supervisor or coordinator of altogether 13 doctoral and 24 master's thesis during the years 2005-2010. This outcome is among the highest in the Faculty. Two other principal investigators in METEORI supervise 4 doctoral theses. The students and young researchers of METEORI enroll very early in its research and collaboration work with industrial partners and educational institutions. Active interaction with nearly 20 international universities has been created.



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RC-SPECIFIC STAGE 1 MATERIAL (registration form)

Keywords: Experience, Quality, Collaboration, Human behavior, Multimodality, Education, HCI,
Communication, Interaction, Methods

6 QUALITY OF RC'S RESEARCH AND DOCTORAL TRAINING

Justified estimate of the quality of the RC's research and doctoral training at national and international level during 2005-2010 (MAX. 2200 characters with spaces): METEORI consists of leading national projects in the fields of subjective image quality, media experience related to print industry, and it is among the leading ones in digital game psychology, multimodal interaction, and collaborative innovation practices. The success can be seen also in publications, funding, awards, international fellowships and doctoral training. Collaboration with global companies like Nokia and M-real show the position of POEM in the global field. With a help of the world-class and unique methods, POEM has technological spearhead projects in Nokia in camera image quality research, the first of them already for the sixth consecutive year. The field is very competitive, including the leading mobile phone, camera, imaging and printing industry companies and universities, and Nokia has selected POEM as the only research partner in this field. In digital game research, one of our papers was selected by a prominent organization as the 4th most interesting research contribution in the field of digital game studies in 2006. METEORI has gained international recognition through collaboration and permanent connections (e.g. Germany, Italy, Japan, UK, USA) on the respective research fields. It has collaboration in five EU consortiums (partner in 3DPhone, FICTUP, LINKED, EU COST Action 2102 and coordinator in KP-Lab). It has received both national and international rewards for its work and it has influence also on societal level in Finland, since participants are invited as experts and members in national educational policy (TEdu). The progress of METEORI can be seen on a wide front of relatively new publications and their citation counts are not high yet. The width of the scope (e.g. image quality, game experience, 3D movie experience, 3D display effects, virtual behavior, learning and teaching with digital technology) shows the activity level and the impact of METEORI.

Comments on how the RC's scientific productivity and doctoral training should be evaluated (MAX. 2200 characters with spaces): Because METEORI is strongly oriented to applications and authentic environments, it should also be evaluated against this background. METEORI projects are best evaluated by looking also at the position of the group, its publications in the relevant journals, but also conference forums and books, and in the way it has real impact on the society through their partner companies and organizations as well as invited participation in societal working groups. The latter can best be verified by asking statements from the companies themselves (e.g., Nokia, M-real). A valid review of METEORI would include the analysis of its impact and role in its main activity areas, i.e. world-class contribution to mobile camera image quality development, paper industry applications, and new visual technologies (e.g., study of 3D in collaboration with leading professionals in Japan) and educational research (e.g., research concerning digital technologies in various educational levels) and participation in educational technology development (e.g., KP-Lab). Each of these will be described in the final project description of METEORI. The publications of METEORI occur on a wide scope and most of them are relatively fresh (after 2005) and have not received large amounts of citations yet. Many of the publications are on the leading conferences of related technology of each of the specific research area. Understanding the nature of these – what we believe to be novel contributions – requires real knowledge of the field and its practices. Nationally, the several prizes received tell their own story of the successful national role of METEORI.

LIST OF RC MEMBERS

NAME OF THE RESEARCHER COMMUNITY:		METEORI: Methodologies, technologies, organizations and innovations			
RC-LEADER		G. Nyman			
CATEGORY		3			
	Last name	First name	PI-status (TUHAT, 29.11.2010)	Title of research and teaching personnel	Affiliation
1	Nyman	Göte	x	Professor	UH, Institute of Behavioural Sciences
2	Kaistinen	Jyrki		Project researcher	UH, Institute of Behavioural Sciences
3	Takatalo	Jari		Doctoral candidate	UH, Institute of Behavioural Sciences
4	Leisti	Tuomas		Doctoral candidate	UH, Institute of Behavioural Sciences
5	Radun	Jenni		Doctoral candidate	UH, Institute of Behavioural Sciences
6	Salmi	Oskari		Project researcher	UH, Institute of Behavioural Sciences
7	Virtanen	Toni		Project researcher	UH, Institute of Behavioural Sciences
8	Säämänen	Timo		Project researcher	UH, Institute of Behavioural Sciences
9	Häkkinen	Jukka		Postdoctoral Researcher	UH, Institute of Behavioural Sciences
10	Mustonen	Terhi		Doctoral candidate	UH, Institute of Behavioural Sciences
11	Kostik	Dana		Project researcher	UH, Institute of Behavioural Sciences
12	Anttonen	Esa		Project researcher	UH, Institute of Behavioural Sciences
13	Orenius	Olli		Project researcher	UH, Institute of Behavioural Sciences
14	Komulainen	Jeppe		Project researcher	UH, Institute of Behavioural Sciences
15	Lehtonen	Miikka		Project researcher	UH, Institute of Behavioural Sciences
16	Särkelä	Heikki		Project researcher	UH, Institute of Behavioural Sciences
17	Laine	Antero		Project researcher	UH, Institute of Behavioural Sciences
18	Toni	Anna		Project researcher	UH, Institute of Behavioural Sciences
19	Hiltunen	Seppo		Project researcher	UH, Institute of Behavioural Sciences
20	Pöyhönen	Perttu		Project researcher	UH, Institute of Behavioural Sciences
21	Suomi	Sini		Project researcher	UH, Institute of Behavioural Sciences
22	Kuusinen	Anni		Project researcher	UH, Institute of Behavioural Sciences
23	Jakonen	Sini		Project researcher	UH, Institute of Behavioural Sciences
24	Nieminen	Laura		Project researcher	UH, Institute of Behavioural Sciences
25	Weckman	Hanna		Project researcher	UH, Institute of Behavioural Sciences
26	Hirsaho	Anni		Project researcher	UH, Institute of Behavioural Sciences
27	Öz	Bahar		Doctoral candidate	UH, Institute of Behavioural Sciences
28	Simsekoglu	Özlem		Postdoctoral Researcher	UH, Institute of Behavioural Sciences
29	Radun	Igor		Postdoctoral Researcher	UH, Institute of Behavioural Sciences
30	Özkan	Turker		Postdoctoral Researcher	UH, Institute of Behavioural Sciences
31	Ilomäki	Liisa	x	Postdoctoral Researcher	UH, Institute of Behavioural Sciences
32	Lakkala	Minna		Postdoctoral Researcher	UH, Institute of Behavioural Sciences
33	Jalonen	Satu		Doctoral candidate	UH, Institute of Behavioural Sciences
34	Kosonen	Kari		Doctoral candidate	UH, Institute of Behavioural Sciences
35	Verkasalo	Markku	x	University Lecturer	UH, Institute of Behavioural Sciences
36	Lipsanen	Jari		University Instructor	UH, Institute of Behavioural Sciences
37	Lahti-Nuuttila	Pekka		Planning officer	UH, Institute of Behavioural Sciences
38	Jokinen	Kristiina	x	Professor	UH, Institute of Behavioural Sciences
39	Wilcock	Graham	x	University Lecturer	UH, Department of Modern Languages



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RC-SPECIFIC STAGE 2 MATERIAL

BACKGROUND INFORMATION

Name of the RC's responsible person: Nyman, Göte

E-mail of the RC's responsible person:

Name and acronym of the participating RC: Methodologies, Technologies, Organizations and Innovations, METEORI

The RC's research represents the following key focus area of UH: 4. Ajatteleva ja oppiva ihminen – The thinking and learning human being

Comments for selecting/not selecting the key focus area: In METEORI we are inspired and motivated by the present and future possibilities of the networked, communicating and interacting knowledge society. But we have rubbed our eyes in disbelief - considering the human, cultural, ecological, and societal impacts, and the facing problems related to the present and future technologies - how little attention and weight human-technology research and knowledge gets in the university having the scale of UH. The focus areas offered as choices seem to exclude this field almost completely. Nevertheless, here we assume that "4. The thinking and learning human being" comes closest, although we know that even its present background is quite far from the METEORI foci. Fortunately, METEORI was accepted as the 5th focus area ("painoala") in the Faculty of Behavioural Sciences so that we have a well-defined role there.

1 FOCUS AND QUALITY OF RC'S RESEARCH (MAX. 8800 CHARACTERS WITH SPACES)

- **Description of the RC's research focus, the quality of the RC's research (incl. key research questions and results) and the scientific significance of the RC's research for the research field(s).**

METEORI consist of four groups of which three are co-located at the 4th Floor of the Psychologicum. It is a lively community with good communication culture. Our external funding is 17.5 Meuro, including the total 11 Meuro of a METEORI coordinated EU project. At IBS, we are formally a section and a focus area of the Faculty. METEORI consists of:

1. Psychology of Evolving Media and Technology (POEM)
2. Technology in Education (TEdu)
3. Intelligent Interactive Informatics (3I)
4. Self-presentation and Values Research Group (SPVRG)

Research focus

Our research areas are Applied Vision, Psychology of Subjective Experience, Collaboration and Knowledge Creation, Multi-modal Interaction, and Advanced Data Collection and Analysis. We study human behaviour and experiences in authentic and complex environment, e.g. subjective quality of digital/print media, application of technology-rich educational environments, psychology of digital games, quality and experience of 2D/3D movies, subjective profiling in HCI applications, information processing and distributed collaboration. A wide spectrum of psychological theory and hybrid, qualitative/quantitative/mixed methodologies are applied. The shared methodologies and techniques have boosted the innovative collaboration within METEORI.



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Key research topics and results

Applied Vision and Subjective Experience studies involve basic research and application contexts. Novel methods have been developed, such as the Interpretation Based Quality (IBQ) method for evaluating high-end visual quality, quantitative Presence-Involvement-Flow framework (PIFF) and Experiential Virtual Environment Questionnaire (EVEQ) for studying game and virtual experiences. They include subjective profiling of digital cameras and image processors, magazines, design objects and digital print quality, interactive virtual environments, digital games (2D/3D), and virtual collaboration. A successful model has been developed to organize and run a technology-independent, distributed innovation crowd-sourcing seminar around any complex problem for real customers.

Collaboration and Knowledge Creation project studies the use of digital technologies at schools and in higher education in the promotion of technology-enhanced collaboration, knowledge practices and pedagogical practices, the development of schools through technology, and the development of digital competence. KP-Lab EU project of TEdu participated in creating the KPE, a platform supporting collaborative knowledge work. It has been investigated in several university courses. This has produced a model for developing school-level practices with digital technology, a heuristic framework for examining and designing pedagogical practices in technology-rich settings (The Pedagogical Infrastructure Framework), and theoretical approaches, pedagogical models and related digital technologies to support collaborative knowledge creation practices.

The studies of Multi-Modal Interaction (3I) focus on theories, methods, techniques and models concerning multimodal interaction, interactive systems, and natural language processing. This includes conversational corpus collection, data analysis and annotation, and distributed technologies are used as means to investigate natural language communication and humanities computing. 3I use eye-tracking technology to collect and analyse conversational video data and has developed innovative methods exploiting Google cloud computing infrastructure for zero-cost databases and interfaces for linguistic corpora. The applications and research topics cover e.g. educational environments, language learning, and intercultural communication, as well as evaluation of human experience in the context of interactions with intelligent agents which can be fellow humans or inanimate computer agents.

SPVRG supports all METEORI groups in Advanced data Collection and Analysis and its own specific project examines the interaction of individual differences with situational characteristics in the prediction of behavior. It unites two rapidly growing fields, personality psychology and experimental economics, relying on personality psychology to specify the relevant individual difference variables.

Quality & Scientific significance

For us, the best quality indicators are the scientific significance, the exceptional global application of our research data by the collaborating companies, media interest received, competitive funding from global companies, and our national social, technological and educational impact. The amount of publications and citations has increased yearly. In last three years, we have produced approximately 62/48 refereed journal/conference articles. The overall number of refereed articles and other publications in 2005-2010 can be seen in the TUHAT listing, attached to the application. METEORI researchers are invited to conduct peer reviews (e.g., Simulation and Gaming, IEEE journals, ijCSCL) and conferences (e.g. Fun'n'Games, Electronic Imaging, ICLS), organize conferences (IST&SPIE), and graduate schools and to participate influential national task forces in Sitra, Tekes, OPH, Helsinki Design Lab and Suomen Elinvoiman lähteet –initiative/Sitra.

3I project organized the Natural Language Processing and XML workshop series (<http://www.ling.helsinki.fi/~gwilcock/NLPXML/>) that played a major role in developing standards and best practices in using XML for linguistic annotation and NLP tools. They produced the Multimodal Interactive System (MUMS), researched ontology verbalization, developed AELRED, organized



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workshops (e.g. 1st Europe-Asia workshop) and wrote a textbook that was in Amazon bestsellers in natural language processing throughout 2010.

A METEORI research paper received outstanding paper nomination in an international conference (PIFF/IADIS 2008) and one was acknowledged by the demanding practitioners (GDC 2007). We have received academic prizes (J.V. Snellman prize, Marketing Communication Research Award, Technology Academy Finland's Quality Award). We have been acknowledged by national (e.g. YLE, Suomen Kuvalehti) and international media (numerous internet media, South Korean TV). We supervise MA's and PhD's and sustain a vast national and international network with scientific and business as well as public sector collaborators.

We see our continuous external funding as a sign of quality, e.g. the partnership with Nokia Camera Image quality group (2004- continued), and with the global paper manufacturer M-real (1998-2009) in product development. These have been highly successful projects, e.g. with M-real, contribution to the world's leading fashion magazine development, and with Nokia in providing guidelines for Nokia in their selections of more than 200 million image processors for their cameras. 3I received an internationally competitive Innovation Award from IBM for work in Unstructured Information Analytics.

The IBQ has been applied in international contexts and shown its business and scientific value. KPE platform, developed in an EU-supported project of TEdu, has been utilized in higher education and workplaces. The 3I project AELRED runs on Google infrastructure at <http://aelred-austen.appspot.com/> demonstrating natural language processing methods in a cloud computing environment. It led to an invitation to contribute a chapter for a forthcoming book "Cloud Computing for Teaching and Learning: Strategies for Design and Implementation". At Stanford, POEM expertise is used to support the EPIC (Earth-wide, Peace, Innovation, Collaboration) project since summer 2010.

• **Ways to strengthen the focus and improve the quality of the RC's research.**

METEORI aims to keep the applied project work and basic research knowledge in balance. We obtain external funding by effective networks and continuous learning of business collaboration. For the past 12 years, the "profits" from company projects have been channeled to basic research (e.g. hiring 6-7 students for this over the summer) as a strategic basic research investments. We invest in academic output (theses, dissertations, articles) that support the research-based innovations. We build motivating, learning processes with our partner companies and have intensive project management coaching. We have a consistent project work and collaboration model. We entertain intensive scientific discussions in our seminars. This strategy has worked well.

We will be actively seeking for departmental positions for METEORI focus area in addition to the professorship we have. We have preliminary plans for a start-up company for applied research, that could fund our basic research. We will extend our competence to new skill areas. We will intensify international mobility of researchers.



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2 PRACTISES AND QUALITY OF DOCTORAL TRAINING (MAX. 8800 CHARACTERS WITH SPACES)

- How is doctoral training organised in the RC? Description of the RC's principles for recruitment and selection of doctoral candidates, supervision of doctoral candidates, collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes, good practises and quality assurance in doctoral training, and assuring good career perspectives for the doctoral candidates/fresh doctorates.

Recruitment and selection of doctoral candidates

Our aim is to create a healthy and growth-oriented working environment. We recruit people with a relevant orientation in international and national industrial, media, education and technology contexts. We pay attention to their educational, psychological and methodological background, but we put especial emphasis on their ethical, team oriented and positively motivated presence. We have developed a recruitment model, which has been very successful. Prospective doctoral candidates are mainly recruited from the METEORI projects and seminars, in which they learn RC practises and show their motivations and competences. According to our model new members are hired by using a veto-principle in the recruitment decision making, that is, after interviews by the leader, also a team of members from the projects conduct interviews of the candidates and both the team and the leader have a veto if they are against the suggestion from either one. The leading principle to recruit are, in this order, high ethical standards of research work and collaboration, high motivation, and excellent method knowledge potential.

Supervision

The leader of POEM has been the supervisor or coordinator of altogether 13 doctoral and 24 Master's thesis during the years 2005-2010. This outcome is among the highest in the Faculty. Two other principal investigators in METEORI supervise 4 doctoral theses (TEdu 2, SPVRG 2). Currently four doctoral students of METEORI have funding and supervision under UCIT (User Centered Information Technology) doctoral school. We provide doctoral students constant support to apply personal funding and most PhD students participate in research projects, where they are provided with responsible positions, such as Work Package leaders or customer relationship managers. In this way they get involved in on-going projects and have a possibility to simultaneously collect data for their own PhD work. We continuously organize research seminar meetings for reviewing and elaborating data, research methods and article drafts. In addition, senior researchers co-author conference papers and articles with the PhD students.

Collaboration with faculties, departments/institutes, and graduate schools

METEORI is an active partner in UCIT and it recently prepared an application as a partner of the Doctoral program on Intelligent, Autonomous machine Systems and processes (DIAS) coordinated by Tampere University of Technology and including one of the national Centers of Excellence. METEORI is also actively engaged with the Graduate School in Educational Technology and Engineering Education Research (ETEER), coordinated by the Aalto University. Clearly, our activity in the national doctoral programs is significantly increasing. As an example of this, of all 8 doctoral program suggestions in our faculty three came from METEORI.

POEM has organized together with Nokia, Aalto and Tampere University of Technology workshops on image quality studies. 3I group has been involved in extensive PhD teaching activities in an international context. It has delivered tutorials dealing with intelligent interaction management, UIMA (Unstructured Information Management Application) framework, and annotation interchange in 10 authoritative international conferences, and organized and lectured in two European PhD-level summer schools. It



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will also organize a Nordic Doctoral Course Feedback, Communicative Gesturing, and Gazing in May 2011 in Helsinki. The leader of 3I is a supervisor in Finnish Graduate School in Language Studies LANGNET since 2009. Principal investigator of TEdu runs every year a seminar for doctoral and master students, which supports the methodological solutions of their theses.

SPVRG has one senior University Lecturer, one University Instructor, and one teaching coordinator. In addition to consulting and collaborating with METEORI, SPVRG is responsible for the whole methodological and statistical education in the Psychology program. It is active in international collaboration and research exchange.

Good practices and quality assurance in doctoral training

In METEORI PhD students are encouraged to find their own research topic, collect empirical data and build their own methodological framework around the studied phenomena. This may prolong the thesis process but it produces true scientific and innovative thinking compared to situations in which both the topic and data are given to the doctoral trainee. In addition to producing the thesis and articles, we want our doctoral students to broaden their scientific thinking and “boldly go where no one has gone before”. The funding structure of METEORI has supported such practices.

Earlier we had a specific career and salary development scheme in POEM that was faster and more profitable to the employees than the present one, but unfortunately that had to be discarded, when the new salary system and its evaluation practices were implemented at UH. It destroyed a valuable model, that was very beneficial for the members and the competitiveness of METEORI in recruiting good people.

A specific research educational practice has been to fund the project members for 100% time during the 3-month summer period to participate in the planning of new research projects (for their master's or doctoral work as well) and to conduct their research (see Part 1). This has been based on the revenues from our customer projects (for example, the leader G. Nyman has not taken any payments for leading the projects over 15 years).

Assuring good career perspectives

We have continuous discussions of how committed the recruited personnel should be in order to stay in our projects or how much we should see our role as educators in general and help them find their own future outside the University. By teaching collaboration skills needed in industry and business-related work, METEORI has helped its young researchers to find jobs in relevant industries. The students and young researchers of METEORI enroll very early in its research and collaboration work with industrial partners and educational institutions, which support their early adaptation to the work-life context.

- RC's strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.

We have an effective PhD training, especially considering the resources provided by UH: we have one professor and the SPVRG personnel (responsible for the whole methodology education in the psychology program). METEORI consists of approximately 40 researchers and research aids. We have tried to use our “project profits” as investments. An example from POEM demonstrates this: with a one 2,5 year-period of UCIT and a wise economical planning POEM produced four Master's theses, one Licentiate thesis and soon one Doctoral thesis of games and virtual environments. Empirical data collected from games and VEs exceeds 4000 participants and has produced 30 publications.

METEORI has gained international recognition (see Part 4) on the respective research fields. It has collaboration in five EU consortiums (partner in 3DPhone, FICTUP, LINKED, EU COST Action 2102 and



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coordinator in KP-Lab). This opens future gateways for doctoral mobility and some positive signs are already visible.

3 SOCIETAL IMPACT OF RESEARCH AND DOCTORAL TRAINING (MAX. 4400 CHARACTERS WITH SPACES)

- Description of how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).

METEORI has an impact on information society and educational system development, and company R&D and marketing. The main impact areas are:

1. Applying research results in development projects

POEM conducts subjective image quality measurement of mobile phone (MP) cameras and their components for Nokia; its MP camera (N8) is the best on the market. We are the sole provider of this research to Nokia and our studies guide their selection of image processing components (Nokia purchases ca 200 million processors per year). We have collaborated with leading companies in US. POEM was invited to support a world leading fashion magazine's visual R&D and our methods were applied in many European countries. In Japan, they are used for 3D imaging technology development. At Stanford, our knowledge of distributed collaboration contributes to the EPIC project that aims at decreasing violence on a global scale. The collaborative technology applications developed in KP-Lab have influence on several organizations.

2. Disseminating research results

Members have edited/authored popular books, newspaper articles, and shared results through Internet. We have e.g., produced empirical evidence about learning and technology in European projects (Ernist, Linked), published in web-portals. 3I group organized a series of workshops on Natural Language Processing and XML, including stand-off XML markup for multimodal annotations (video, voice, gesture, text) and querying temporally overlapping events, e.g. in meetings and classroom situations. One workshop founded a new SIG for Linguistic Annotation. 3I was involved in the series of SIGDial conference (Spoken Dialogue Systems), Nodalida conference, and IWSDS conference. Monographs and textbooks were produced on spoken dialogue systems and extracting information from unstructured text using UIMA and a series of tutorials run on UIMA in Scandinavia, France and Germany, and on multimodal dialogue management in authoritative conferences.

3. Role as an invited expert, a board member or another significant role

On a national level, we contribute to leading organizations, e.g. Sitra, TEKES, Academy of Finland, Ministry of Education, Ministry of Environmental Affairs, National Board of Education. In EU, members contributed in European Commission, European SchoolNet and EU COST2102 network. 3I leader was the evaluator for the Research Councils in Portugal and the Netherlands, and Secretary of SIGDial, the Interest Group on Discourse and Dialogue. The members have been in committees for numerous international workshops and conferences.

4. Consultation and training

METEORI members offer extensive international and national consultation and training in its focus area.

5. Contribution to professional competences through doctoral training

We educate the students to become professional project oriented researchers and managers. We developed a novel model of a distributed innovation seminar for real customers, arranged now 8 times



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since 1998. The results have been praised by our customers (e.g. Finnish Tax Administration, City of Helsinki and YLE). The pedagogics of the courses were studied by TEdu, the results were internationally published and used in a recent PhD.

- Ways to strengthen the societal impact of the RC's research and doctoral training.

We have successfully focused on authentic fields of the knowledge society. Our impact areas are societal decision making and discussions, business collaboration and R&D, national and international (EU) education, and research policy authority. We have a wide company collaboration -network that is used to support companies in R&D and research. POEM has achieved respected position as a partner for Nokia in the internationally demanding forum. Such a long-lasting collaboration has educated competent project managers for our projects, and our previous members have found good work positions also in novel areas. Our expertise is being invited to many national and international forums. But it must be honestly admitted, that there is a striking contrast between the highly positive reception we have among our partners and collaborators vs. how we are received by the department and the faculty. This is a major challenge in building our future here.

4 INTERNATIONAL AND NATIONAL (INCL. INTERSECTORAL) RESEARCH COLLABORATION AND RESEARCHER MOBILITY (MAX. 4400 CHARACTERS WITH SPACES)

- Description of the RC's research collaborations and joint doctoral training activities and how the RC has promoted researcher mobility.

We have five EU projects and coordinate one. Visiting scholars came from Japanese universities and high-ranking business representatives from Japanese companies. Two PhD students came from METU (Turkey) and two post-doc collaborators from Turkey and Russia. RC professors visited Stanford U and Japan for several months.

METEORI network 2005-2010:

National university (9):

TUT (Advanced Multimedia Center & D of Business Inf. Management and Logistics); Aalto U (SimLab); Åbo Akademi (IT); U Oulu (Future School Research Center); U Tampere (TAUCHI); U Joensuu; U Turku; Lappeenranta U Tech; Metropolia.

International university (52):

Cambridge U (Physiol.); Milano Bicocca U (DISCo); Stanford U (Persuasive Tech Lab); U Bonn (Econ); U Cologne (Management); U Western Ontario (Psyc); U Tartu (Psyc); Hebrew U Jerusalem (Psyc); Bilkent U; PRES de l'Université de Lorraine; European Schoolnet, Brussels; Open U (Edu), UK; Södersjukhuset, Karolinska Inst.; U Strathclyde (Edu); Eötvös Loránd U (Multimedia and Edu Tech); Technical U Sofia; U Paul Verlaine-Metz; U Bologna (Edu Sci); Hebrew U Jerusalem (Edu); Utrecht U (Curriculum Studies); U Degli Studi di Genova (Ingegneria Biofisica ed Elettronica); U Economics (Inf. and Knowledge Engin.), Prague; U Neuchâtel (Psyc); Institut National Polytechnique de Toulouse, Inst. de Recherche en Informatique de Toulouse; Technical U Kosice (Cybernetics and AI); U Oslo (Intermedia); U Paris-Sud (Informatique); U Nottingham; U Gothenburg; U Copenhagen; KTH (Kungliga tekniska högskolan); U Tartu; U Latvia; U Manchester; U Edinburgh; Imperial College London; Queen Mary U London; Brunel U; U Ulster; Trinity College Dublin; U Twente; U Tilburg; U Paris; LIMSI; TELECOM ParisTech; U Granada; U Doshisha; U Tokyo; Tokyo Inst Tech; NAIST (Nara Inst Sci and Tech); Future U Hakodate; Waseda U.



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Non-university (19):

Nokia; M-Real; Finnish Ntl Board of Edu; Edu D of City of Helsinki and Espoo; Helsinki City Public Works D; YLE; Finnish Tax Administration; Finnish Defence Forces; Suunto; Insta; SAVOX; Desigence; Educodes; Kuusela.com; Heuristica; Stora Enso; VTT, Intelligent Transport Systems & Int. Transp.; PÖYRY; Association for the Blind.

International non-university (24):

Fraunhofer HHI (Germany); Holografika (Hungary); TAT (Sweden); Telefonica (Spain); Mondi Business Paper Services AG (Austria); Amitei (Italy); Natl. Agency for the Development of School Autonomy (Italy); Directorate-General of Innovation and Curricular Development of the Portuguese Ministry of Edu (Portugal); Natl. Network for IT Research and Competence in Edu (Norway); Tiger Leap Foundation (Estonia); Centre of Information Technol. of Edu (Lithuania); AKKA Technol. Group (France); FH OÖ Forschungs und Entwicklungs GmbH (FH OÖ F&E), Engineering for Computer-Based Learning (Austria); Scier Societa Consortile a Responsabilita Limitata (Italy); Foundation for Research and Techn. Hellas (Greece); Tessera Multimedia S.A. (Greece); Skellefteå Kommun Skeria Utveckling (Sweden); Ministry of Edu, Higher Edu and Research (France); Edu Technology Strategy Management Group (Northern Ireland); Inspectorate for Edu (Netherlands); Swiss Agency for ICT in Edu; NICT-ATR, Advanced Telecomm Research Labs (Japan); Toshiba; NHK (Japan Broadcast. Corp.).

- RC's strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.

A strength of METEORI is our extensive international and multidisciplinary collaboration with the world's top-level universities and companies. We understand the needs of our collaborators and provide essential data and information for them. This requires good basic knowledge of many areas (communication and information technology, education, pattern recognition, design, project work etc.). We must be able to communicate the significance of our knowledge in our RC's everyday work. The outside funded project work requires constant balancing between academic interests and cost-effectiveness for the funder. Due to projects with real working life problems, RC constantly studies areas of other disciplines, which makes members experts in non-traditional areas of psychology. The collaboration network of RC has opened new career opportunities for students and spread psychology to wider areas in society. It gives excellent collaboration skills for students to work in multidisciplinary teams in their future career also outside universities.

5 OPERATIONAL CONDITIONS (MAX. 4400 CHARACTERS WITH SPACES)

- Description of the operational conditions in the RC's research environment (e.g. research infrastructure, balance between research and teaching duties).

METEORI data collection is done in three laboratories and several natural and web-based contexts, which all require specialized infrastructure. The annual subject amount is ca 400 (in laboratories), several thousands in web-based collection and several data collection events in natural contexts. We have built an optimized internal subjective data collection process, including modular laboratories, centralized mailing lists, online laboratory calendars and Internet based self-reservation for subjects. METEORI research complies with multimedia standards (ITU-R BT 500-11, ITU-T P910, ISO 20462).

3I data collection has been conducted in collaboration with University of Tartu and Doshisha University, Japan. It uses two digital cameras and an eye-tracker. It is partially analysed and annotated using the MUMIN annotation scheme. Software development consists of a demonstrator system of an interactive



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bus route providing system on a PDA (the MUMS-system), prototypes for automatic language generation and interaction, teaching tools, and web applications with Google App Engine cloud computing framework.

Quality and experience has been researched in printed media, computer gaming, digital still and video material. We have laboratory setups e.g. displaying digital video and image contents, four gaming laboratories, two color and lighting controlled four-display image quality measurement systems, reading studies with Eyelink eye-movement tracking system and specialized product packaging and magazine shelf experiences labs utilizing a Tobii X120 eye movement tracking system. Applied vision studies involve emerging technologies, such as 3D games and video, videoconferencing and seamless indoor/outdoor navigational systems. We have used 3D HD television, 3D projector, 3D display, and a set of large high definition video recording and playback devices for immersive conferencing. We now have a trustworthy reputation in companies, so that we often work on product prototypes of the most advanced technology, that are not on the public market yet.

The quality experience research software VQ-ONE has been developed and continuously updated. It is capable of repeating up-to date standards and new applications based on them. KPE, created in the KP-Lab project, was developed to function as a tool and research framework for studying the benefits of new technological tools for knowledge creation work in educational and professional contexts. KPE has been used in METEORI courses as a distributed team innovation platform and in two research projects as a researchers' coordination tool.

Field studies include modelling the use of head-mounted displays as tactical gear for the Finnish Defence Forces. METEORI utilizes also current technology in its personality research by using PDA based self-reporting systems for ambulatory measurements. METEORI has conducted international field work by studying how young people use digital and print media in Finland, China and Turkey. During the evaluation period, METEORI has done educational field studies in altogether 11 schools and 15 higher education courses, with about 700 students and 270 teachers, principals and professionals as participants, investigating varying technological applications, KPE being one of them.

- RC's strengths and challenges related to operational conditions, and the actions planned for their development.

Our activities are divided into basic research, business-collaborative applied research and teaching. Both applied and basic research projects are often handled at a much faster pace than in traditional academic research work. For example, projects in collaboration with Nokia are often done in three month (quartal) phases. Interaction with industry and educational systems is frequent and a unique feature of METEORI group. Balancing the requirements of working in both corporate and academic worlds has created a dynamic working culture in METEORI. Working in a framework of two worlds, we have been able to provide substantial teaching output through methodology and organizational psychology courses, thesis mentoring and a course about collaborating within groups of diversified knowledge bases. One continuous challenge is to find laboratory space and time with the large number of subjects participating the studies each year. We now have a serious need for permanent ICT professionals in METEORI.



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6 LEADERSHIP AND MANAGEMENT IN THE RESEARCHER COMMUNITY (MAX. 4400 CHARACTERS WITH SPACES)

- Description of the execution and processes of leadership in the RC, how the management-related responsibilities and roles are distributed in the RC and how the leadership- and management-related processes support high quality research, collaboration between principal investigators and other researchers in the RC, the RC's research focus and strengthening of the RC's know-how.

Based on our studies on collaboration conducted together with POEM and TEdu, we characterize the overall METEORI leadership and management model as a self-organizing, systematic project oriented model, with the values of true professionalism. It allows RC to grow without the hindrances of a top-down management. It is democratic and young researchers get significant roles and responsibilities as soon as they are ready to accept them, (with senior and group support, naturally) often already after one year of experience. They participate in customer negotiations, can have their own budget, their salary rises due to growing responsibilities and they give presentations of results for the customers and in international congresses. The purpose of this, which might seem to be high pressure for young students, is to offer a strong perspective from the beginning of their career and to understand the whole research process they are included in.

METEORI members express their opinion in the strategic planning of the group future, including the recruitment in POEM. Young researchers can introduce their own research initiatives and excellent success story examples exist. In weekly meetings and strategy meetings we check the status of each project and give support when needed. The same principle of early responsibilities is implemented in the distributed innovation seminar, where each student acts for a few weeks as a project manager of their own interdisciplinary team, when doing a project for an outside real customer. Students learn academic entrepreneurship, project management and domain specific language in other fields than their own. Students leaving the group have got jobs in new areas like paper industry, technological research and development and in leading consultancy companies. We also support them in finding good jobs.

Because the outcomes of the Nokia and M-real projects, for example, have been globally distributed within company processes, there is no place for failure. It has been imperative to build reliable, systematic, and motivating collaboration models with the partner companies. For example, the projects with Nokia have run on a quarterly reporting and planning basis for six years. In this way we educate truly professional researchers and research managers that can master such demanding global environments.

Several collaboration softwares have been tested and used in METEORI: indeed KPE was developed in the EU project coordinated by TEdu and other systems used are Optima, Lotus Notes, Wiki and GoogleDocs. The leader of METEORI was responsible for the original Lotus Notes collaboration architecture that is used by all psychology departments in Finland. All this has provided students with knowledge and experience of modern management environments.

An extra support for the leadership and management thinking in METEORI is that it gives education in the basic work and organizational topics. It has even started to give management and leadership education to first-year psychology students (2011/3) in a lecture series "What are we talking about when we talk about management and leadership?" This early management education is new in Finland, but we see it as an important part in coaching the young generation in their career.



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RC-SPECIFIC STAGE 2 MATERIAL

- RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes.

The METEORI leadership model has created a healthy work environment. We have good relationships with the ex-members for whom we now plan an alumni Talent Network. Our model is agile and it has helped us to quickly respond to various business and scientific offers. We have not marketed our work, all projects have been built on external invitations. We should develop this aspect of our work, as it is strategically necessary in the changing and competitive field. We have to educate the new generation to be competent leaders and experts in relevant business environments.

METEORI members are motivated to participate in basic research as well. The 2010 doubled departmental overhead consumes the project profits which funded such activities. Permanent positions at the university would support basic research and help build management. It would be a good investment as well. We will try to deal with this need in all sectors of METEORI. A simple solution would be to direct e.g. 50% of our overhead to UH/Dept back to our basic research.

7 EXTERNAL COMPETITIVE FUNDING OF THE RC

- Listing of the RCs external competitive funding, where:
 - the funding decisions have been made during 1.1.2005-31.12.2010, and
 - the administrator of the funding is/has been the University of Helsinki
- Academy of Finland (AF) - total amount of funding (in euros) AF has decided to allocate to the RC members during 1.1.2005-31.12.2010: 1033800
- Finnish Funding Agency for Technology and Innovation (TEKES) - total amount of funding (in euros) TEKES has decided to allocate to the RC members during 1.1.2005-31.12.2010: 3199583
- European Union (EU) - total amount of funding (in euros) EU has decided to allocate to the RC members during 1.1.2005-31.12.2010: 11479700
- European Research Council (ERC) - total amount of funding (in euros) ERC has decided to allocate to the RC members during 1.1.2005-31.12.2010: 0
- International and national foundations – names of international and national foundations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
 - names of the foundations: - NordForsk
 - - IBM
 - total amount of funding (in euros) from the above-mentioned foundations: 57250
- Other international funding - names of other international funding organizations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
 - names of the funding organizations: NORDCORP
 - total amount of funding (in euros) from the above-mentioned funding organizations: 226800



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RC-SPECIFIC STAGE 2 MATERIAL

- Other national funding (incl. EVO funding and Ministry of Education and Culture funded doctoral programme positions) - names of other national funding organizations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
 - names of the funding organizations: - City of Helsinki
 - - The Finnish Work Environment Fund
 - - Nokia
 - - M-Real
 - total amount of funding (in euros) from the above-mentioned funding organizations: 1709978

8 RC'S STRATEGIC ACTION PLAN FOR 2011–2013 (MAX. 4400 CHARACTERS WITH SPACES)

- Description of the RC's future perspectives in respect to research and doctoral training.

Organizational strategy issues

We initiated a systematic strategic planning in METEORI in early 2000. Since then we have evolved into a research consortium with large academic and collaborative business networks. During 2011–2013, METEORI will develop its research, management, and communication practices in order to strengthen its "ecosystem" for basic and applied research. This is an inspiring endeavour, as we do not see basic and applied research as opposite practices. Our basic research produces academic output (e.g., thesis, dissertations, articles), providing emerging ideas, method innovations, and new starts for the applied, externally funded projects. In these applied projects, the basic research knowledge is collaboratively utilized in application contexts, METEORI students are employed, they can prepare their theses, and they are familiarized with project-oriented working life. Our masters and doctors are provided with career opportunities in a dynamic research context: this is really an original ecosystem.

A company, founded outside the university can provide new ways to reward workers based on their competence and previous experience, ignoring the UH YPJ salary system, which only acknowledges academic achievements. Previous entrepreneurship in METEORI and current University strategies encouraging such actions support the start-up. METEORI management has significant experience in start-up development and advising.

Basic research activity concentrates on doctoral training, academic productivity and competition for the academic funding. It also aims at attaining departmental tenures for METEORI, in order to secure long-span research and innovative new viewpoints to the current problems in the field. The financial freedom of METEORI achieved by the start-up company will support a quick reaction to new project ideas evolved in basic research.

Academic and business activities should be orchestrated rhythmically and collaboratively: academic funding in balance with the external one. Leadership at any level of the METEORI organization requires knowledge about the complex and multidimensional focus areas, dynamic environment, and hybrid methods.

Researcher mobility is emphasized. Currently METEORI has a wide international network, which has generated student and senior researcher mobility. The strategy in 2011-2013 is to increase researcher mobility at all levels, from master level internships abroad to international post-doc studies and senior sabbaticals. The increased mobility will enhance both academic and business opportunities for the METEORI.



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RC-SPECIFIC STAGE 2 MATERIAL

Specific strategy issues

We will tighten research collaboration between METEORI subteams and basic & applied research tracks in order to widen our competence and improve competitiveness. We will achieve this by organizational change management, common research seminar activity, sharing of best method and management practices and experiences in company collaboration. We will organize special coaching in management and in professionalism.

Continuous methodological development and improvement is a strategic necessity for METEORI. The role of SVPRG is crucial in: a) developing advanced data collection and analysis methods as well as novel modelling solutions for complex authentic technology-rich settings, b) increasing ecological validity with multidimensional research paradigms, c) strengthening the methodologies and paradigms for Research & Development Design research and Design based research approaches.

The pressure for sustainable thinking and solutions is acute in all sectors of the society. We have already begun specific initiatives that aim to consider this and implement it in our work (e.g. Psychology of Energy behavior and Psychology of Economy behavior). We also have a history in this from M-real activities since 2007. We have shared this pressure within the separate METEORI teams.

METEORI has nationally an exceptional role in contributing to important societal discussions and decision making. We will improve the education of our young generation in this and first steps have been already taken.

9 SHORT DESCRIPTION OF HOW THE RC MEMBERS HAVE CONTRIBUTED TO THE COMPILATION OF THE STAGE 2 MATERIALS (MAX. 1100 CHARACTERS WITH SPACES).

The stage two materials were compiled according to our own practises: putting weight on realism, honesty and consistency. The collaboration model from POEM courses was used in the compilation process. Each of the nine documents was assigned a project manager who collected the information and distributed it for members through Google Docs platform. In GD all participating groups sharpened the documents and provided information about their research.

Then we arranged a two-day workshop in Tvärminne zoological station with 18 METEORI participants, and the content of the RC story was outlined. During the last two weeks the documents were open for rewriting for all RC members in GD. A polishing team went through them and corrected overlaps and errors. Finally, in an inspection meeting all the documents were laid out side by side and RC members could give their last comments. RC members individually took care that their output was updated in time in TUHAT.

All this took approximately 500 person hours. The workshop costs (2000€) were covered by POEM.



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RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

METEORI/Nyman

1 Analysis of publications

- Associated person is one of Göte Nyman , Jyrki Kaistinen , Jari Matti Ensio Takatalo ,
Tuomas Leisti , Jenni Emilia Radun , Veli-Matti Oskari Salmi , Toni Ilkka Olavi Virtanen ,
Timo Säämänen , Jukka Häkkinen , Terhi Mustonen ,
Olli Viljami Orenius , Miikka Markus Lehtonen , Heikki Tapio Särkelä, Anna Toni , Seppo
Ilmari Hiltunen , Perttu Pöyhönen , Sini-Maarit Tuulikki Suomi , Sini Jakonen ,
Anni Tuulikki Hirsaho , Bahar Oz, Ozlem Simsekoglu , Igor Radun ,
Turker Özkan, Liisa Ilomäki , Minna Lakkala , Satu Jalonen , Kari
Olli Antero Kosonen , Markku Verkasalo , Jari Olavi Lipsanen , Pekka Lahti-Nuutila ,
Kristiina Jokinen , Graham Wilcock ,

Publication type	Publication year						Total Count 2005 - 2010
	2005	2006	2007	2008	2009	2010	
A1 Refereed journal article	10	12	13	18	19	14	86
A3 Contribution to book/other compilations (refereed)	5	4	3	5	7	5	29
A4 Article in conference publication (refereed)	6	14	8	18	19	15	80
B1 Unrefereed journal article	1	1	2		2	1	7
B2 Contribution to book/other compilations (non-refereed)	3	2	1	1	2	1	10
B3 Unrefereed article in conference proceedings		1	2		2		5
C1 Published scientific monograph			1		2		3
C2 Edited book, compilation, conference proceeding or special issue of journal	1	1	2	2	1	1	8
D1 Article in professional journal	1	2				2	5
D2 Article in professional hand or guide book or in a professional data system, or text book material	1		2	4	1		8
D3 Article in professional conference proceedings	1						1
D4 Published development or research report	1		1	1	1	2	6
D5 Text book or professional handbook or guidebook or dictionary				1	2		3
E1 Popular article, newspaper article		2		1		1	4
E1 Popular contribution to book/other compilations	1						1
E2 Popular monograph		1	1				2



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RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

METEORI/Nyman

2 Listing of publications

A1 Refereed journal article

2005

- Häkkinen, J, Takatalo, J, Komulainen, J, Särkelä, H, Havukumpu, J, Nyman, G 2005, 'Simulator sickness symptoms in virtual display gaming', **Proc Int Disp Workshops**, vol vol. 12, no. 2, pp. 1825-1828.
- Kollias, V, Mamalougos, N, Vamvakoussi, X, Lakkala, M, Vosniadou, S 2005, 'Teachers' attitudes to and beliefs about web-based Collaborative Learning Environments in the context of an international implementation', **Computers & Education**, vol 45, no. 3, pp. 295-315.
- Lakkala, M, Lallimo, J, Hakkarainen, K 2005, 'Teachers' pedagogical designs for technology-supported collective inquiry: A national case study', **Computers & Education**, vol 45, no. 3, pp. 337-356.
- Lakkala, M, Muukkonen, H, Hakkarainen, K 2005, 'Patterns of scaffolding in computer-mediated collaborative inquiry', **Mentoring & Tutoring**, vol 13, no. 2, pp. 281-300.
- Lindeman, M, Verkasalo, M 2005, 'Measuring values with the Short Schwartz's Value Survey', **Journal of Personality Assessment**, vol 85, no. 2, pp. 170-178.
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RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

METEORI/Nyman

Özkan, T, Lajunen, T, Chliaoutakis, J, Parker, D, Summala, H 2006, 'Cross-cultural differences in driving behaviours: A comparison of six countries', **Transportation Research. Part F: Traffic Psychology and Behaviour**, vol 9, no. 3, pp. 227-242.

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RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

METEORI/Nyman

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- 2009**
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Halonen, R, Nuutinen, M, Oittinen, P, Leisti, T, Nyman, G, Mettänen, M, Ritala, R, Eerola, T, Lensu, L, Kämäräinen, J, Kälviäinen, H 2010, *Fusion of Digital and Visual Print Quality: Final Report of DigiQ Project*, **Graphic arts in Finland, no. 3, vol. 39, Graphic Industry Research Foundation, Helsinki.**

Radun, I, Ohisalo, J, Radun, J 2010, *Väsymys tieliikenteessä ja laki: Lainsoveltajan näkökulma*, **Liikenneturvan tutkimusmonisteita, no. 110, Liikenneturva, Helsinki.**

D5 Text book or professional handbook or guidebook or dictionary

2008

Jokinen, K, Campbell, N 2008, *Non-verbal Information Sources for Constructive Dialogue Management*, **Marrakesh, Morocco.**

2009

Jokinen, K 2009, *Natural Language Communication and Affordable Interfaces*, **San Diego, U.S.**

Wilcock, G 2009, *Introduction to Linguistic Annotation and Text Analytics*, **Synthesis lectures on human language technologies, no. 3, Morgan & Claypool, [San Rafael, CA].**

E1 Popular article, newspaper article

2006

Nyman, G 2006, 'Vastuullinen estetiikka', **Kirnauskis saitti.**

Radun, I 2006, 'Älä aja väsyneenä', **Toyota Plus**, no. 1, pp. 5.

2008



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE
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RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

METEORI/Nyman

Ilomäki, L **2008**, 'Tietotekniikan osaamisessa suuria eroja koulujen välillä', **Helsingin Sanomat**, no. 294, pp. C11.

2010

Helkama, K, Verkasalo, M **2010**, 'Perustutkimuksen sortaminen kostautuu', **Helsingin Sanomat**, no. 184, pp. A2.

E1 Popular contribution to book/other compilations

2005

Jokinen, K **2005**, 'Dialogue Modelling for Speech-based Interaction Systems', **HLT 2005, April 4-5, 2005, Estonia. Tutorials., Tallinn University of Technology, Institute of Cybernetics, Tallinn.**

E2 Popular monograph

2006

Lindroos, S, Nyman, G, Lindroos, K **2006**, *Kirkas brandi: miten suomalainen tuote erottuu, lisää arvoaan ja perustelee hintansa*, **WSOY, Helsinki.**

2007

Kosonen, K, Merisaari, A **2007**, *Kootaan ajattelun työkalupakki: perustiedosta elämäntähtäin : pikkukeskosina syntyneiden sokeiden nuorten oppimiskuntoutushanke 2005-2007. Sokeiden lasten tuki ry, Nousiainen.*



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RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

METEORI/Nyman

1 Analysis of activities 2005-2010

- Associated person is one of Göte Nyman , Jyrki Kaistinen , Jari Matti Ensio Takatalo ,
Tuomas Leisti , Jenni Emilia Radun , Veli-Matti Oskari Salmi , Toni Ilkka Olavi Virtanen ,
Timo Säämänen , Jukka Häkkinen , Terhi Mustonen ,
Olli Viljami Orenius , Miikka Markus Lehtonen , Heikki Tapio Särkelä, Anna Toni , Seppo
Ilmari Hiltunen , Perttu Pöyhönen , Sini-Maarit Tuulikki Suomi , Sini Jakonen ,
Anni Tuulikki Hirsaho , Bahar Oz, Ozlem Simsekoglu , Igor Radun , Kari
Turker Özkan, Liisa Ilomäki , Minna Lakkala , Satu Jalonen ,
Olli Antero Kosonen , Markku Verkasalo , Jari Olavi Lipsanen , Pekka Lahti-Nuutila ,
Kristiina Jokinen , Graham Wilcock ,

Activity type	Count
Supervisor or co-supervisor of doctoral thesis	21
Prizes and awards	13
Editor of research journal	7
Editor of research anthology/collection/conference proceedings	3
Peer review of manuscripts	36
Assessment of candidates for academic posts	3
Membership or other role in review committee	2
Membership or other role in research network	4
Membership or other role in national/international committee, council, board	20
Membership or other role in public Finnish or international organization	8
Membership or other role of body in private company/organisation	3
Participation in interview for written media	16
Participation in radio programme	2
Participation in TV programme	6
Participation in interview for web based media	1



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METEORI/Nyman

2 Listing of activities 2005-2010

Supervisor or co-supervisor of doctoral thesis

Göte Nyman ,

Supervisor of Doctoral thesis (Completed), Göte Nyman, 01.01.1995 → 19.01.2007, Finland
Supervision of doctoral thesis, Göte Nyman, 01.01.2002 → 31.12.2007, Finland
Supervisor of doctoral thesis, Göte Nyman, 01.01.2002 → 01.06.2011, Finland
Supervisor of doctoral thesis (Completed), Göte Nyman, 01.01.2003 → 31.12.2006, Finland
Supervisor of doctoral thesis (Completed), Göte Nyman, 01.01.2004 → 14.01.2011, Finland
Supervisor of doctoral thesis (Completed), Göte Nyman, 01.01.2005 → 30.05.2010, Finland
Supervisor of doctoral thesis (Completed), Göte Nyman, 01.01.2005 → 15.05.2010, Finland
Supervisor of doctoral thesis (Completed), Göte Nyman, 01.01.2006 → 08.05.2009, Finland
Supervisor of doctoral thesis (Completed), Göte Nyman, 01.01.2007 → 31.01.2009, Finland
Supervisor of doctoral thesis, Göte Nyman, 20.03.2008 → 31.12.2013, Finland
Supervisor of doctoral thesis, Göte Nyman, 24.03.2008 → 31.12.2013
Supervisor of doctoral thesis, Göte Nyman, 01.01.2009 → 31.12.2013, Finland
Supervisor of doctoral thesis, Göte Nyman, 01.09.2010 → 31.12.2012, Finland
Supervisor of doctoral thesis, Göte Nyman, 01.09.2010 → 31.12.2013, Finland

Tuomas Leisti ,

tasapainoisen referenssikuvan luominen painetun kuvan visuaaliseen arvioimiseen, Tuomas Leisti, 01.02.2008 → 14.09.2008

Liisa Ilomäki ,

Supervision of a Doctoral thesis, Liisa Ilomäki, 2009 → ..., Finland

Markku Verkasalo ,

Second supervisor of the Doctoral thesis of Nina Koivula, Markku Verkasalo, 01.01.2004 → 18.06.2008, Finland
Supervising doctoral thesis of Jan-Erik Lönnqvist, Markku Verkasalo, 01.01.2005 → 28.11.2008, Finland

Kristiina Jokinen ,

Supervision of doctoral thesis, Kristiina Jokinen, 01.01.2005 → 31.12.2005, United States
PhD Supervision, Kristiina Jokinen, 2007 → 2011
PhD Supervision, Kristiina Jokinen, 2009 → ..., Finland

Prizes and awards

Göte Nyman ,

M.A. award, best thesis in Organizational psychology: 2005 Aino Salimäki: "How managers apply pay systems", Göte Nyman, 31.12.2005, Finland
Best M.A. thesis 2006 to Kreetta Kopra (Reading magazines, processes and experiences, Göte Nyman, 31.12.2006, Finland
Best Student Poster Award 2006 for the outstanding presentation of paper Functions of Images, Göte Nyman, 04.10.2006, United States
Best Student Poster Award 2006 for the outstanding presentation of paper Functions of Images", t, Göte Nyman, 03.10.2006 → 04.10.2006, United States
Advertisers fund prize/Mainostajien rahaston palkinto, Göte Nyman, 06.06.2007
Helsinki Psychologist Association award for the best master's thesis to Jeppe Komulainen, Göte Nyman, 31.12.2007, Finland
J.V. Snellman -prize, Göte Nyman, 22.05.2007, Finland



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METEORI/Nyman

Outstanding paper award at IADIS Gaming 2008: Design for Engaging Experience and Social Interaction -konferenssissa, Göte Nyman, 22.07.2008 → 27.07.2008, Netherlands

Quality award/Matti Sundbergin laaturahasto apuraha, Göte Nyman, 24.03.2010

Jari Matti Ensio Takatalo ,

Artikkel GDC 2007 "Top 10 research findings" - listassa sijalla 4, Jari Matti Ensio Takatalo, 2007

Artikkelin valinta konferenssin parhaaksi (outsataniding paper award) IADIS Gaming 2008: Design for Engaging Experience and Social Interaction -konferenssissa, Jari Matti Ensio Takatalo, 2008, Netherlands

Artikkelin valinta paras paperi -ehdokkaaksi (a nominee of the best paper award), Jari Matti Ensio Takatalo, 2009, United States

Graham Wilcock ,

IBM Innovation Award, Graham Wilcock, 18.11.2008, United States

Editor of research journal

Jukka Häkkinen ,

Journal of the Society for the Information Display, Jukka Häkkinen, 01.10.2007 → 31.12.2007, United States

Psykologia, Jukka Häkkinen, 01.12.2007 → 31.12.2007, Finland

Psykologia, Jukka Häkkinen, 01.01.2007 → 31.12.2007, Finland

Transactions on Applied Perception, Jukka Häkkinen, 01.05.2007 → 31.12.2007, Finland

Minna Lakkala ,

Editorial board member: the European Journal of School Psychology, Minna Lakkala, 2007 → 2009

Editorial board member of ijCSCL, Minna Lakkala, 10.2010 → ...

Kristiina Jokinen ,

NEALT Proceedings Series, Kristiina Jokinen, 2008 → ...

Editor of research anthology/collection/conference proceedings

Graham Wilcock ,

Editor, Proceedings of the 10th European Workshop on Natural Language Generation, Graham Wilcock, 08.04.2005 → 10.08.2005, United Kingdom

Editor, Proceedings of the 5th Workshop on NLP and XML (NLPXML-2006): Multi-Dimensional Markup in Natural Language Processing, Graham Wilcock, 06.01.2006 → 04.04.2006, Italy

Editor, Proceedings of The Linguistic Annotation Workshop, Graham Wilcock, 26.03.2007 → 29.06.2007, United States

Peer review of manuscripts

Jari Matti Ensio Takatalo ,

Vertaisarvioiteja Computer-Human Interaction konferenssiin, Jari Matti Ensio Takatalo, 2009 → ...

Vertaisarvioiteja Evaluating User EXperiences in Games:Games: Concept and Methods - kirjaan, Jari Matti Ensio Takatalo, 2009 → ...

Vertaisarvioiteja Information Systems Frontiers - lehteen, Jari Matti Ensio Takatalo, 2009 → ...

Vertaisarvioiteja Journal of Computer -lehteen, Jari Matti Ensio Takatalo, 2009 → ...

Vertaisarvioiteja Fun'n'Games konferenssiin, Jari Matti Ensio Takatalo, 2010 → ...

Vertaisarvioiteja Simulation & Gaming -lehteen, Jari Matti Ensio Takatalo, 2010 → ...

Liisa Ilomäki ,

Computers & Education, Liisa Ilomäki, 2005

Computers & Education, Liisa Ilomäki, 2006

Educational research review, Liisa Ilomäki, 2007, Netherlands

Computers & Education, Liisa Ilomäki, 2008, United States



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METEORI/Nyman

Handbook of Research on New Media Literacy at the K-12 Level: Issues and Challenges, Liisa Ilomäki, 2008, Singapore

Kasvatus, Liisa Ilomäki, 2008, Finland

Learning Media and Technology, Liisa Ilomäki, 2008, United Kingdom

International Journal of Computer supported Collaborative learning, Liisa Ilomäki, 2010, United States

Nordic Journal of Digital Literacy, Liisa Ilomäki, 10.2010, Norway

Minna Lakkala ,

Referee: The 3rd International Conference on Education and Information Systems: Technologies and Applications, EISTA2005 (3 manuscripts), Minna Lakkala, 2005, United States

Referee: American Educational Research Association (AERA) Annual Meeting (6 manuscripts), Minna Lakkala, 2006

Referee: Computer Supported Collaborative Learning (CSCL2006) conference (6 manuscripts), Minna Lakkala, 2006

Referee: Curriculum Journal, Minna Lakkala, 2006

Referee: Educational Research Review, Minna Lakkala, 2006

Referee: International Conference of the Learning Sciences, ICLS2006 (6 manuscripts), Minna Lakkala, 2006

Referee: International Journal of Computer Supported Collaborative Learning (2 manuscripts), Minna Lakkala, 2006

Referee: Computers & Education, Minna Lakkala, 2007

Referee: International Journal of Computer Supported Collaborative Learning, Minna Lakkala, 2007

Referee: Computers & Education, Minna Lakkala, 2008

Referee: the Journal of the Learning Sciences, Minna Lakkala, 2008

Referee: Computer-Supported Collaborative Learning (CSCL2009) conference (5 manuscripts), Minna Lakkala, 2009

Referee: International Conference for the Learning Sciences, ICLS2009 (6 manuscripts), Minna Lakkala, 2009

Referee: International Journal of Computer Supported Collaborative Learning, Minna Lakkala, 2009

Referee: International Journal of Computer Supported Collaborative Learning (2 manuscripts), Minna Lakkala, 2009

Referee: the 11th European Congress on Psychology 2009 (about 90 short abstracts), Minna Lakkala, 2009, Norway

Asiantuntijalausunto Verkko-opettaja -kirjan käsikirjoituksesta, Minna Lakkala, 11.2010

Referee: Computer Supported Collaborative Learning (CSCL2011) conference (6 manuscripts), Minna Lakkala, 12.2010

Markku Verkasalo ,

European Journal of Social Psychology,, Markku Verkasalo, 01.01.2008 → 31.12.2008

Kristiina Jokinen ,

Speech Communication, Kristiina Jokinen, 2009 → 2010

Graham Wilcock ,

Journal of Web Semantics, Graham Wilcock, 01.01.2008 → 31.12.2008, Netherlands

Assessment of candidates for academic posts

Minna Lakkala ,

Psykometriikan yliopistonopettajan virantäyttötoimikunnan jäsen, Minna Lakkala, 12.10.2009

Kristiina Jokinen ,

University Lecture post, Kristiina Jokinen, 09.2009 → ...

University Lecture post, Kristiina Jokinen, 10.2010 → ..., Sweden

Membership or other role in review committee

Minna Lakkala ,

Expert panel member, Minna Lakkala, 15.04.2007 → 15.10.2007



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METEORI/Nyman

OECD:n arviointiryhmän asiantuntija ("OECD Study on Digital Learning Resources as Systemic Innovation. Country case study report on Finland"), Minna Lakkala, 2008

Membership or other role in research network

Toni Ilkka Olavi Virtanen ,

SPIE jäsen, Toni Ilkka Olavi Virtanen, 01.01.2009, United States

Kristiina Jokinen ,

NorFA Nordic Network for Multimodal Interfaces, Kristiina Jokinen, 2002 → 2005

ACL-ISCA SIGDIAL, Kristiina Jokinen, 2004 → ...

EU COST 2012 Project, Kristiina Jokinen, 2009 → 2011

Membership or other role in national/international committee, council, board

Göte Nyman ,

Finnsight 2015, Göte Nyman, 01.01.2006 → 09.05.2006, Finland

Electronic Imaging 2008, Göte Nyman, 01.01.2008 → 31.12.2008, United States

Future workshop/Media and ict, Finland-Japan Foresight initiative, Göte Nyman, 01.01.2008 → 30.06.2008, Finland

EAC-A-3; Jean Monnet: University/Business partnerships, Göte Nyman, 05.02.2009 → 06.02.2009, Belgium

Electronic Imaging 2009, Göte Nyman, 01.01.2009 → 31.12.2009, United States

Sources of Vitality development program, Göte Nyman, 2009 → 2010, Finland

Electronic Imaging 2010, Göte Nyman, 01.01.2010 → 31.12.2010, United States

Helsinki Design Lab, Göte Nyman, 01.09.2010 → 03.09.2010, Finland

Innovation Journalism IJ8 2011 Conference Stanford University, evaluating committee, Göte Nyman, 01.06.2010 → 01.06.2011, United States

Member of Aalto Brand Council, Göte Nyman, 01.11.2010 → ..., Finland

Roundtable on Transforming Capitalism towards regenerative Economy, Göte Nyman, 21.05.2010, United States

Jari Matti Ensio Takatalo ,

Luottamustoimi, Jari Matti Ensio Takatalo, 1997 → 2009, Finland

Liisa Ilomäki ,

Interaktiivinen teknologia koulutuksessa / Interactive technology in education, Liisa Ilomäki, 1990 → ..., Finland

Metropoliat ja yleissivistys: Innovaatiot, teknologia ja koulutus / Metropolia and all-around education: Innovations, technology and education, Liisa Ilomäki, 29.05.2009, Finland

Tulevaisuuden oppiminen / Learning in future, Liisa Ilomäki, 20.08.2009, Finland

Expert member, Liisa Ilomäki, 10.2010 → ..., Belgium

Koulutuksen tietoyhteiskuntakehittäminen / Development of educational knowledge society, Liisa Ilomäki, 09.2010 → 11.2010, Finland

Markku Verkasalo ,

Member in the Selection Panel of the Faculty of Behavioral sciences, Markku Verkasalo, 01.01.2010 → 31.12.2010, Finland

Kristiina Jokinen ,

SIGDial - Special Interest Group for Discourse and Dialogue, Kristiina Jokinen, 01.01.2005 → 31.12.2005, United States

Graham Wilcock ,

Dutch National Research Council, evaluation panel, Graham Wilcock, 04.12.2006 → 31.12.2006, Netherlands

Membership or other role in public Finnish or international organization

Toni Ilkka Olavi Virtanen ,

PMA jäsen, Toni Ilkka Olavi Virtanen, 01.01.2009 → 31.12.2009, United States



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METEORI/Nyman

Liisa Ilomäki ,

Verkko-opimisen laatukriteerit / Quality criteria for network learning, Liisa Ilomäki, 16.11.2004 → 31.12.2005, Finland

Digital Learning Resources as Systemic Innovation visit, Liisa Ilomäki, 16.09.2008, France

Validation workshop on Creativity and Innovation in Education, Liisa Ilomäki, 01.06.2010 → 02.06.2010, Spain

Markku Verkasalo ,

Käyt.tieteellisen tiedekunnan valintalautakunta, Markku Verkasalo, 01.01.2005 → 31.12.2005, Finland

Käyttätymistieteellisen tiedekunnan (HY), valintalautakunta, Markku Verkasalo, 01.01.2006 → 31.12.2006, Finland

Käyttätymistieteellisen tiedekunnan valintalautakunta, Markku Verkasalo, 01.01.2007 → 31.12.2007, Finland

Käyt.tieteellisen tiedekunnan valintalautakunta, Markku Verkasalo, 01.01.2008 → 31.12.2008, Finland

Membership or other role of body in private company/organisation

Jukka Häkkinen ,

Society for Information display, Jukka Häkkinen, 01.01.2007 → 31.12.2007, Finland

Liisa Ilomäki ,

ITK-konferenssi, Liisa Ilomäki, 01.01.2008 → 31.12.2008

Minna Lakkala ,

Koulutusasiantuntija, partneri, hallituksen puheenjohtaja: Heuristica Oy, Minna Lakkala, 1987 → ...

Participation in interview for written media

Jari Matti Ensio Takatalo ,

Lehtihaastattelu, Jari Matti Ensio Takatalo, 17.02.2007, Finland

Lehtihaastattelu, Jari Matti Ensio Takatalo, 03.2007, Finland

Lehtihaastattelu, Jari Matti Ensio Takatalo, 12.2007, Finland

Lehtihaastattelu, Jari Matti Ensio Takatalo, 01.2008, Finland

Lehtihaastattelu, Jari Matti Ensio Takatalo, 01.2010, Finland

Lehtihaastattelu, Jari Matti Ensio Takatalo, 05.2010, Finland

Igor Radun ,

Liikenneturva ja Helsingin yliopisto tutkivat väsymystä liikenteessä, Igor Radun, 2008, Finland

Joka viides on nukahtanut ajaessaan, Igor Radun, 2009

Silmät ristissä ratissa., Igor Radun, 2009, Finland

Levänneenä liikenteeseen., Igor Radun, 2010, Finland

Välitä väsymyksestä!, Igor Radun, 2010, Finland

Väsymys on vakava tieliikenteen ongelma., Igor Radun, 2010, Finland

Väsymyksen ajamisesta rangaistaan - tai sitten ei., Igor Radun, 2010, Finland

Markku Verkasalo ,

Keskustelu kauneuden merkityksestä., Markku Verkasalo, 20.01.2005 → 31.12.2011, Finland

Kristiina Jokinen ,

Tietoyhteys-lehti 4/2004, Kristiina Jokinen, 01.01.2004 → 31.12.2011, Finland

Yliopistolehti haastattelu, Kristiina Jokinen, 2006 → ...

Participation in radio programme

Jari Matti Ensio Takatalo ,

Radiohaastattelu, Jari Matti Ensio Takatalo, 03.10.2007, Finland



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METEORI/Nyman

Radiohaastattelu, Jari Matti Ensio Takatalo, 14.11.2007, Finland

Participation in TV programme

Jari Matti Ensio Takatalo ,

TV haastattelu pelikokemuksesta, Jari Matti Ensio Takatalo, 2007, Finland

TV haastattelu tietokonepeleistä, Jari Matti Ensio Takatalo, 2008, Finland

Toni Ilkka Olavi Virtanen ,

Haastattelu Prisma Studio ohjelmassa, Toni Ilkka Olavi Virtanen, 13.09.2009, Finland

Igor Radun ,

Fatigue responsible for one in five fatal road accidents, Igor Radun, 13.06.2008

Miehet nukahtelevat rattiin, Igor Radun, 15.05.2009, Finland

Liisa Ilomäki ,

Opettaja TV / Teacher TV, Liisa Ilomäki, 01.11.2010, Finland

Participation in interview for web based media

Liisa Ilomäki ,

Opettaja TV / Teacher TV, Liisa Ilomäki, 24.04.2009, Finland



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING
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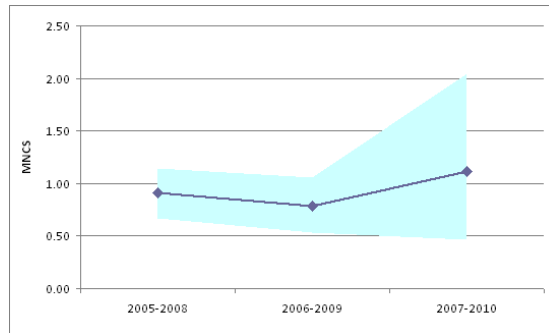
Web of Science(WoS)-based bibliometrics of the RC's publications data 1.1.2005-31.12.2010
by CWTS, Leiden University, the Netherlands

Research Group: Nyman G

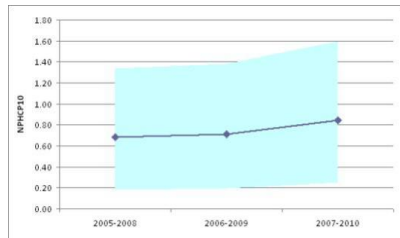
Basic statistics

Number of publications (P)	68
Number of citations (TCS)	168
Number of citations per publication (MCS)	2.50
Percentage of uncited publications	44%
Field-normalized number of citations per publication (MNCS)	1.14
Field-normalized average journal impact (MNJS)	1.04
Field-normalized proportion highly cited publications (top 10%)	.79
Internal coverage	.54

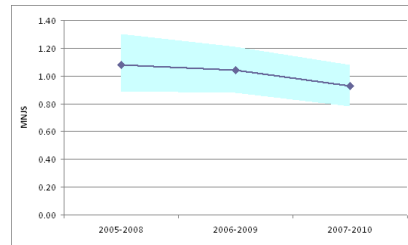
Trend analyses



MNCS

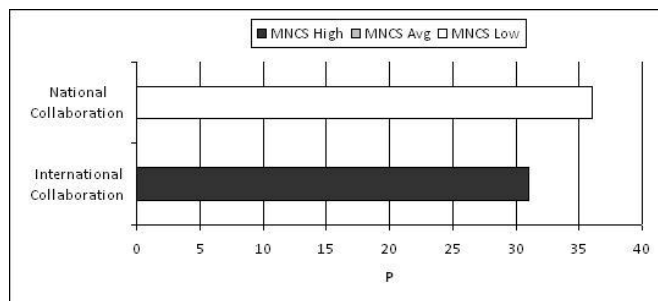


THCP10



MNJS

Collaboration



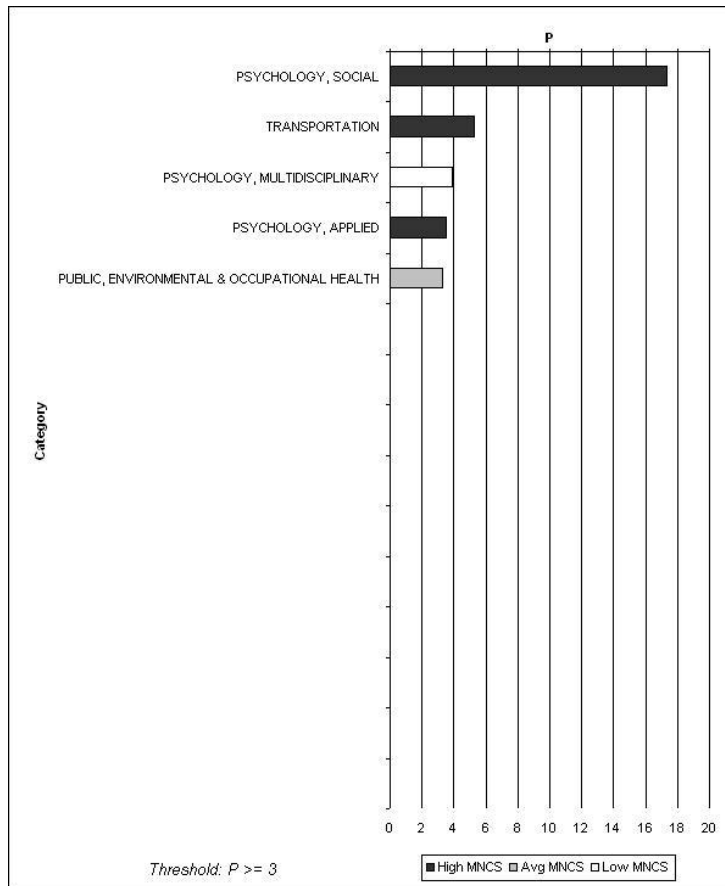
Performance (MNCS) by collaboration type



INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING
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Web of Science(WoS)-based bibliometrics of the RC's publications data 1.1.2005-31.12.2010
by CWTS. Leiden University, the Netherlands

Research profile



Appendix B.b.

Maria Forsman, Chief Information Specialist, DSocSc
Helsinki University Library 7.7.2011

The bibliometric analyses by Helsinki University Library (HULib)

Background: The bibliometric analyses – especially citation analyses – have raised a lot of discussion and critics among researchers in social sciences and humanities. Researchers view that bibliometric analyses are often unfair to these fields of sciences because they do not give a good enough picture of the publishing. Citation databases – Web of Science and Scopus – cover only weakly the main publications in these fields. Also, in humanities and social sciences monograph is still the main form of publishing, and it does not include in these article databases.

At the University of Helsinki, the above mentioned concerns have been taken into account in the evaluation. The Evaluation Office has ordered analyses from the Helsinki University Library (HULib) for the participating researcher communities that are weakly represented in Web of Science. The database for the HULib analyses is TUHAT (<https://tuhat.halvi.helsinki.fi/portal/en/>) including all the publications that the researchers have considered important.

Based on this data, information specialists at HULib have carried out the following analyses:

- 1) Number of authors/publication/year as a table; a pie of authors/publication in the period 2005-2010;
- 2) Language of publication/year; a pie of language of publication in the period 2005-2010;
- 3) Articles/journal/year; journals have been compared by ISSN with the Norwegian, Australian and ERIH (2007-2008) journal ranking lists; number of articles in ranked journals;
- 4) Publisher/monograph type (according to TUHAT database); monographs have been compared with the Norwegian publisher ranking list. According to this, it has been counted how many monographs are published by a leading scientific publisher (2) or a scientific publisher (1).
- 5) Conference publications (from TUHAT database) especially in computer sciences; compared with the Australian conference ranking list.

Where relevant, some additional analyses and notes concerning the publication culture of a scientific field have been added. Overall, these analyses complement the other evaluation material and lists of the publications of the participating researcher communities.

If the publications of the RCs were less than 50 or/and the internal coverage less than 40 percentage, the WoS analyses were considered not reliable. These RCs were 58 altogether.

In addition, both Leiden and Library analyses were done to the RCs if WoS analyses covered less than 40 per cent of the peer review (A+C) publications of the RC. These RCs were 8 altogether.

The appendix includes the analyses of the RC under discussion.

**Analysis of publications by Helsinki University
Library – 66 RCs altogether**

Biological, Agricultural and Veterinary Sciences

Luukkanen, Olavi – VITRI
Valsta, Lauri – SUVALUE

Natural Sciences

Abrahamsson, Pekka – SOFTSYS
Kangasharju, Jussi – NODES
Ukkonen, Esko – ALKO
Väänänen, Jouko – HLG

Humanities

Aejmelaesus, Anneli – CSTT
Anttonen, Pertti – CMVG
Dunderberg, Ismo – FC
Havu, Eva – CoCoLaC
Heikkilä, Markku – RCSP
Heinämaa, Sara – SHC
Henriksson, Markku – CITA
Janhunen, Juha – LDHFTA
Kajava Mika, – AMNE
Klippi, Anu – Interaction
Knuuttila, Simo – PPMP
Koskenniemi, Kimmo – BAULT
Lauha, Aila – CECH
Lavento, Mika – ARCH-HU
Lukkarinen, Ville – AHCI
Lyytikäinen, Pirjo – GLW
Mauranen, Anna – LFP
Meinander, Henrik – HIST
Nevalainen, Terttu – VARIENG
Pettersson, Bo – ILLC
Pulkkinen, Tuija – Gender Studies
Pyrhönen, Heta – ART
Ruokanen, Miikka – RELDIAL
Saarinen, Risto – RELSOC
Sandu, Gabriel – LMPS
Tarasti, Eero – MusSig
Vehmas-Lehto, Inkeri – TraST
Östman, Jan-Ola – LMS

Social Sciences

Airaksinen, Timo – PPH
Engeström, Yrjö – CRADLE
Granberg, Leo – TRANSRURBAN
Haila, Anne – Sociopolis
Hautamäki, Jarkko – CEA
Heinonen, Visa – KUMU
Helén, Ilpo – STS
Hukkinen, Janne – GENU
Jallinoja, Riitta – SBII
Kaartinen, Timo – SCA
Kettunen, Pauli – NordSoc
Kivinen, Markku – FCREES
Koponen, Juhani – DEVERELE
Koskenniemi, Martti – ECI
Kultti, Klaus – EAT
Lahelma, Elina – KUFÉ
Lanne, Markku – TSEM
Lavonen, Jari – RCMSE
Lehtonen, Risto – SocStats
Lindblom-Yläne, Sari – EdPsychHE
Nieminen, Hannu – MECOL
Nuotio, Kimmo – Law
Nyman, Göte – METEORI
Ollikainen, Markku – ENFIFO
Pirttilä-Backman, Anna-Maija – DYNASOBIC
Rahkonen, Keijo – CulCap
Roos, J P – HELPS
Simola, Hannu – SOCE-DGI
Sulkunen, Pekka – PosPus
Sumelius, John – AG ECON
Vaattovaara, Mari – STRUTSI
Vainio, Martti – SigMe

The next appendix includes the analyses of the
RC under discussion.

INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

1.7.2011 PJK / 19.4.2012 MF

PUBLICATION DATA 2005-2010

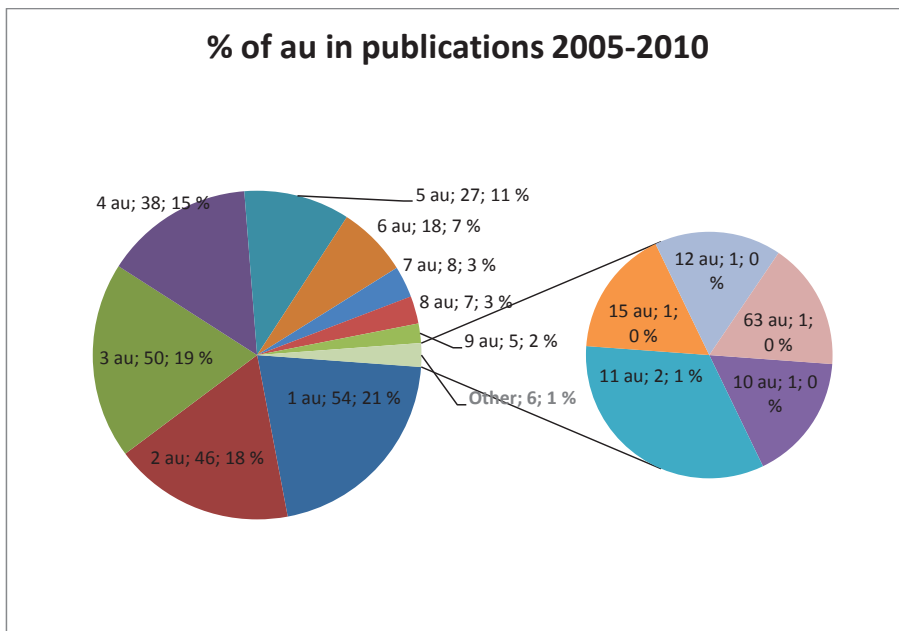
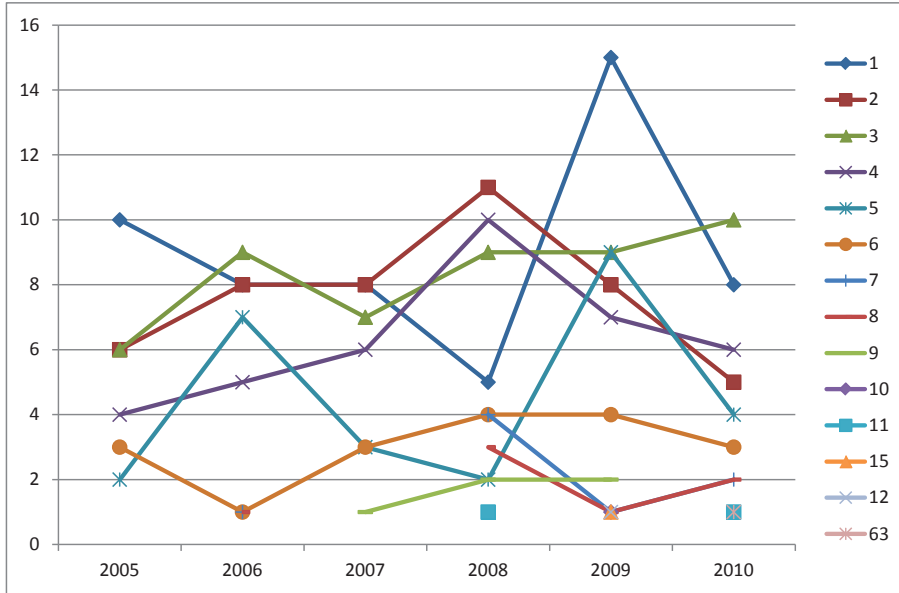
RC/METEORI/Nyman

Category 3. *The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.*

Number of authors in publications/year

No. of authors	2005	2006	2007	2008	2009	2010	Grand Total
1	10	8	8	5	15	8	54
2	6	8	8	11	8	5	46
3	6	9	7	9	9	10	50
4	4	5	6	10	7	6	38
5	2	7	3	2	9	4	27
6	3	1	3	4	4	3	18
7		1		4	1	2	8
8		1		3	1	2	7
9			1	2	2		5
10					1		1
11				1		1	2
15					1		1
12					1		1
63						1	1
Grand Total	31	40	36	51	59	42	259

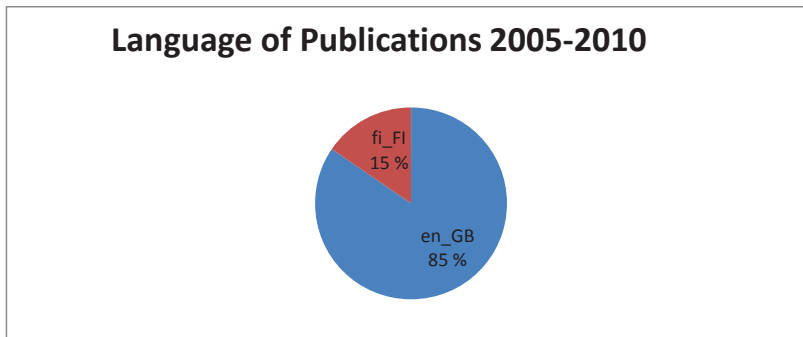
79% of publications have more than one author.



Language of publication / Year

Language	2005	2006	2007	2008	2009	2010	Grand Total
English en_GB	23	33	31	41	54	37	219
Finnish fi_FI	8	7	5	10	5	5	40
Grand Total	31	40	36	51	59	42	259

85 % of publications are in English and the remaining 15% in Finnish.



Journal / Year / Total

Journal	2005	2006	2007	2008	2009	2010	Grand Total
Journal of the Society for Information Display				3	3		6
Transportation Research. Part F: Traffic Psychology and Behaviour	1	1		1	2	1	6
Accident Analysis and Prevention		3		1	1		5
Psykologia	2		1	1	1		5
European Journal of Personality			2		2		4
Computers & Education	2		1				3
European Journal of Social Psychology					3		3
ACM transactions on applied perception.				1		1	2
Ammattikasvatuksen aikakauskirja	1	1					2
Helsingin Sanomat				1		1	2
International Journal of Psychophysiology			2				2
Journal of Applied Social Psychology		2					2
Journal of display technology.				1	1		2

Journal of Research in Personality				1	1		2
Personality and Social Psychology Bulletin		1				1	2
Research and Practice in Technology Enhanced Learning.				1		1	2
Traffic injury prevention				1	1		2
AI Magazine			1				1
Applied Cognitive Psychology						1	1
Basic and Applied Social Psychology				1			1
Behaviour and Information Technology			1				1
British Journal of Social Psychology					1		1
Chronobiology International		1					1
Computers in Human Behavior				1			1
eLearning Papers						1	1
Elektrotechnica & elektronika : [in Bulgarian]					1		1
ERCIM news			1				1
European Journal of Public Health			1				1
European Journal of School Psychology.			1				1
Experimental Brain Research				1			1
Innovation journalism						1	1
International Journal of Computer-Supported Collaborative Learning						1	1
International Journal of Human-Computer Studies						1	1
Journal of Abnormal Psychology						1	1
Journal of Clinical Psychology						1	1
Journal of digital games research						1	1
Journal of Imaging Science and Technology						1	1
Journal of Personality			1				1
Journal of Personality Assessment	1						1
Journal of Public Health						1	1
Journal of The Institute of Image Information and Television Engineers						1	1
Journal of the Learning Sciences	1						1
Kirnauskis saitti		1					1
Kuljetusyrittäjä Suomen kuorma-autoliiton jäsenlehti						1	1
Language Resources and Evaluation			1				1
Leadership Quarterly		1					1
Learning and Individual Differences						1	1
Learning, Media & Technology (Print Edition)		1					1
Mentoring & Tutoring	1						1
Military Medicine			1				1
Mind, Brain, and Education				1			1
Motivation and Emotion				1			1
Neuropsychobiology				1			1
Ote : opetus & teknologia		1					1
Outlines : critical practice studies						1	1
Perception		1					1
Proc Int Disp Workshops	1						1

Proessori	1						1
Psychosomatic Medicine				1			1
Safety Science						1	1
Scandinavian Journal of Psychology						1	1
Science & Education					1		1
Sex Roles	1						1
Taksi-lehti						1	1
Toyota Plus		1					1
Universal Access in the Information Society		1					1
Workshop on W3C's Multimodal Architecture and Interfaces - Minutes 16-17 November, 2007 Keio University Shonan Fujisawa Campus, Fujisawa, Japan			1				1
Yliopisto : Helsingin yliopiston tiedelehti		1					1
Grand Total	12	17	15	19	22	18	103

Journal ranking (Norway, Australia, ERIH)

Journal	Grand Total	Norway	Australia	ERIH Gender Studies (2007)	ERIH Linguistics (2007)	ERIH Pedagogical and Educational Research (2007)	ERIH Psychology (2008)
Journal of the Society for Information Display	6	1					
Transportation Research. Part F: Traffic Psychology and Behaviour	6	2	C				B
Accident Analysis and Prevention	5	1	A*				
European Journal of Personality	4	1	B				A
Computers & Education	3	2	A			A	
European Journal of Social Psychology	3	2	A				A
ACM transactions on applied perception.	2	1	B				
International Journal of Psychophysiology	2	2	B				B
Journal of Applied Social Psychology	2	1	B				B
Journal of display technology.	2	1					
Journal of Research in Personality	2	1	A				A
Personality and Social Psychology Bulletin	2	2	A*				A
Research and Practice in Technology Enhanced Learning.	2	1	C				
Traffic injury prevention	2		B				
AI Magazine	1	1	C				
Applied Cognitive Psychology	1	2	B				B
Basic and Applied Social Psychology	1	1	C				B
Behaviour and Information Technology	1	1	A				C
British Journal of Social Psychology	1	2	B				B
Chronobiology International	1	1	B				B

Computers in Human Behavior	1	2	B			B	B
eLearning Papers	1	1					
European Journal of Public Health	1	1	B				
Experimental Brain Research	1	1	B				B
Innovation journalism	1	1					
International Journal of Computer-Supported Collaborative Learning	1	2	B				
International Journal of Human-Computer Studies	1	1	A		B		A
Journal of Abnormal Psychology	1	2	A*				A
Journal of Clinical Psychology	1	2	B				B
Journal of Imaging Science and Technology	1	1					
Journal of Personality	1	2	A				A
Journal of Personality Assessment	1	2	B				A
Journal of Public Health	1		C				
Journal of the Learning Sciences	1	2	B		A		A
Language Resources and Evaluation	1	1	B		B		
Leadership Quarterly	1	2	A*				A
Learning and Individual Differences	1	1	B		B		A
Mentoring & Tutoring	1		B				
Military Medicine	1	1	A				
Mind, Brain, and Education	1		B				
Motivation and Emotion	1	1	A				B
Neuropsychobiology	1	1	C				B
Outlines : critical practice studies	1	1	C				
Perception	1	1	A				B
Psychosomatic Medicine	1	2	A				A
Safety Science	1	2	A				
Scandinavian Journal of Psychology	1	1	B				B
Science & Education	1		B		B		
Sex Roles	1	1	A	B			B
Universal Access in the Information Society	1		C				

Amount of ranked articles (Norway)

Norway	Journal articles
Level 2	28
Level 1	44

Amount of ranked articles (Australian)

Australia	Journal articles
Level A*	9

Level A	17
Level B	28
Level C	14

Book publishers

Publisher ranking (based on Norwegian ranking list)

2 = leading scientific

1 =scientific

no = non-scientific or not ranked

C1 Published scientific monograph (3)

C2 Edited book, compilation, conference proceeding or special issue of journal (8)

D5 Text book or professional handbook or guidebook or dictionary (1)

E2 Popular monograph (2)

None of the 14 books has been published by a high ranked leading scientific publisher. 7 books are by a ranked scientific publisher.

Publisher	c1_scientific_monograph	c2_edited_book_compilation_conferenceproceedings_special	d5_textbook_professional_handbook	e2_popular_monograph	Grand Total	Publisher ranking
Morgan & Claypool	1		1		2	no
Association for Computational Linguistics		2			2	1
Wiley	1				1	1
Limor	1				1	no
Northern European Association for Language Technology NEALT		1			1	no
WSOY				1	1	1
Finnish National Board of Education (Opetushallitus)		1			1	
Elsevier		1			1	1
SPRINGER		1			1	1
University of Aberdeen		1			1	1
University of Helsinki		1			1	no
Sokeiden lasten tuki ry				1	1	no
Grand Total	3	8	1	2	14	

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