

**Research ex post Assessment Report
of the Department of Information Business
(Vienna University of Economics and Business Administration)**

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This Assessment Report is based on a Self Assessment Report of the Department of Information Business and an evaluation workshop taken place on 9th/10th December 2002. The Self Assessment Report includes a more general presentation of the department, profiles of the researchers, project descriptions, and an overview of the research output published by the department's researchers. Furthermore in the report strengths and weaknesses are analysed by the department itself. In several appendixes overviews of the teaching load, the network topology, and the personnel at the WU are given. Also some selected publications have been included into the report. In the evaluation workshop the research areas and projects were presented by the researchers of the department. In the workshop the Peer Reviewers received some additional material supplementing the Self Assessment Report. The reviewers had also the opportunity to clarify open questions in the evaluation workshop. Both the report and the workshop covered the years 1999-2001, which is the relevant period for this assessment. The structuring of the following sections follows a proposal by Dr. Hermann Huemer (Research Support Officer at the WU).

1 Research Mission and long-term Aims

a) Effectivity of the mission statement/research goals

The statement is comprehensible, truly strategic, and not based on buzzwords. Yet, the mission statement is too general and should refer to the area of information business more directly.

b) Scientific and societal relevance

Obviously the research mission and the long-term aims have a high scientific and societal relevance.

c) Viability

The innovative potential of the research mission is clearly visible. The viability of aimed concepts, models, methods, and strategies is given.

d) "target reaching degree"

Since the mission statement is quite general and based on long-term considerations, its target reaching degree cannot not be defined properly. Nevertheless the following sections will show to which extent the department reaches its goals regarding high-quality research and the cooperation with external partners.

2 Research Indicators

a) Performance

The scientific output of the department is documented in Chapter 4 of the self evaluation report. A closer look at the publication list shows that there are some papers listed, which were elaborated outside the department (two publications of Dr. Volker Stix from 1999 – referenced as Bomze et al.) or not pertinent regarding the subjects of research (like some papers of Dr. Edward Bernroider – referenced as Minnich et al.). However, the papers show that the department is able to acquire highly qualified personnel also from other institutions and is not scientifically incestuous.

A project-oriented view on the publications show that the research output of the projects was consequently published in an adequate manner. All important results were published on conferences and in journals, mostly with international focus. In this connection we would recommend to publish also the RETTE model on an international level. The same is true for the highly relevant research regarding the integration of game and agent theory – it is a "diamond in the rough" and shows high potential. The existing publications are reliable in a sense that duplicates or semi duplicates of publications and "authorships honoris causa" are avoided. Furthermore, the research associates and assistant lecturers nearly all finished their PhD and habilitation theses in three to four years. The professors have a clear own research profile.

b) Efficiency

In the years 1999-2001 the personnel of the department consisted of two professors, seven to eight assistants and up to three project assistants (see Table 1, numbers are taken from additional information received in the evaluation workshop). Therefore on average about eleven researchers have been working at the department.

	1999	2000	2001	Average
Professor	2	2	2	2
Assistant	8	7	7	7.33
Project Assistant	3	2	0.44	1.81
Total	13	11	9.44	11.14

Table 1: Personnel 1999-2001 (full-time equivalent)

The numbers of publications of different types produced in the relevant period can be found in Table 2. These numbers are taken from the department's Self Assessment Report (minus publications elaborated outside the department, see above).

	Number	Average Number per Person and Year
Journal	7	0.21
Proceedings	21	0.63
Contributions to Books	2	0.06
Working Papers	13	0.39
Books	3	0.09
<i>Other</i>	8	
Total (without "Other")	46	1.38

Table 2: Number of Publications 1999-2001

The average number of publications per person and year is not extremely high, but many of the works have been published in reputable journals and proceedings. Furthermore for this average number "other" publications have not been taken into account, since these publications are seven dissertations and one habilitation. Obviously it would not be accurate to correlate the number of publications of this type with the average number of researchers in the department. Nevertheless with regard to this publication type it can be stated that the researchers at the department are able to complete theses within an adequate timeframe.

Table 3 shows the percentages of third-party funds in relation to the department's budgets (also taken from the department's Self Assessment Report). Here in particular the sharp fall from 2000 to 2001 is remarkable. This number should grow again – especially in order to increase the number of project assistants.

	1999	2000	2001
Percentage of third-party funds	65.7	74.3	26.9

Table 3: Third-party funds in relation to budgets 1999-2001

3 Quality Assessment

a) Qualitative Assessment due to 3 selected Papers

Edward Bernroider / Stefan Koch, 2000:

”Entscheidungsfindung bei der Auswahl betrieblicher Standardsoftware – Ergebnisse einer empirischen Untersuchung in österreichischen Unternehmen”

This is a typical empirical research paper. Structure and proceeding are classical: First the area of investigation including the definition of borderlines to others is discussed, then the methodology and as a core of the paper the results are presented. Even if the findings are non-surprising, the application of sound practises lead to relevant and interesting results.

Andreas Geyer-Schulz / Michael Hahsler / Maximillian Jahn, 2001:

“Educational and Scientific Recommender Systems: Designing the Information Channels of the Virtual University“

The paper about the application of recommender systems in a virtual university describes an innovative approach for the support of students in their daily study situation. The paper describes the architecture of such system which is accurately derived from the requirements to such a system and literature surveys. In the architecture several soft computing techniques are applied and introduced properly. The overall impression of the paper is that it is highly sophisticated and relevant.

Stefan Koch / Georg Schneider, 2002:

"Effort, Co-operation and Co-ordination in an Open Source Software Project: GNOME"

The paper is a case study in the field of software engineering. It is also a paper where empirical research methods are applied. A software development project was observed over the whole development period. During this time, relevant index numbers regarding the co-operation and co-ordination of programmers were collected, analysed and interpreted. These aspects are in particular important in OpenSource software projects, because especially in this field a lot of distributed programmer work in one project. Therefore the results elaborated here are highly relevant – in particular with regard to the actual discussions on this topic.

The overall impression of the analysis of the papers is that research is done in a very solid and reliable way applying well established and accepted methodologies. On the other side, sometimes new bright ideas should be introduced.

b) International Co-operation

Here the engagement of Professor Wolfgang Panny in the standardisation committee of the ISO has to be pointed out. This activity is highly important for the transfer of scientific results to practise. Unfortunately, it often does not play an important role if scientific performance has to be accessed.

Furthermore, some selective activities on personal level to other international researchers can be identified. However, the involvement in the international community should be increased.

c) Interdisciplinary Co-operation

Since information business (Informationswirtschaft) is not a widespread scientific subject, interdisciplinary co-operations are necessary and well established. On the one hand, the "native connection" to Business Informatics (Wirtschaftsinformatik) is established through joint publications with scientists from this area, on the other hand some community work is done in this field (e. g. co-editorship of Journal "Wirtschaftsinformatik"). Furthermore, co-operations with quantitative research fields like statistics, OR and quantitative economics are well established und documented in recent publications. Also the recruitment of Dr. Volker

Stix working in the OR area and the papers of Dr. Edward Bernroider mentioned above show the interdisciplinarity of the department.

d) International Impact

Most of the main research results are published internationally on conferences and in journals with high reputation. The researchers in the department are not “mass producers” of papers – we see this in a positive way, but for this reason the impact is more selective than area-wide.

e) Standing within the International Scientific Community and within the Austrian science system

The department has a good international reputation – particularly because of the researcher’s publications in international journals and proceedings. But regarding visibility the reviewers see some potential for improvements. Even if the standing in the Austrian science system is very good – particularly because of Professor Wolfgang Janko’s activities – the cooperation in the international scientific community is expandable. Especially for researchers with habilitation this would be very important because of the no longer practiced automatic “Pragmatisierung” (as far as we know). Therefore there should be more activities like these of Professor Panny.

f) Education and Training by Research

A very positive development in the department is the high number of dissertations and also one habilitation. Despite the high workload from teaching the assistants have a true chance to elaborate their theses in a period between three and four years. The assistants have a clear perspective and are highly motivated to go their academic ways.

After the completion of the dissertations mentioned above the mixture in the department between doctoral candidates and post-doc researchers became quite unbalanced. In the long run a more balanced personnel is desirable.

4 General Review

a) Research Management

The assistants have high degree of freedom regarding their subjects of research and their proceeding. Furthermore, they have the opportunity to go to international events if they give a presentation. The assistants use their freedom in a constructive and productive manner. The professors have their own areas of research, which are more focused on quantitative and theoretical subjects. However, the price of this is in some cases an uncontrolled growth of research ideas and papers, but in this case it seems to be a better strategy than the explicit definition and (authoritarian) achievement of research objectives.

b) Resources and Equipment

At the time of evaluation the hardware and software equipment of the department is suitable regarding the research to be done. Unfortunately, it is foreseeable that this equipment will become obsolete soon.

5 Recommendations

a) Scientific Contents and Goals

Theoretical and quantitative research particularly done by the professors and the more empirical and applied research activities should be consolidated. A search for synergies is recommended.

b) Suggestions for Research Mission and Strategies

The mission statement should be clarified and more focused to current and future research activities in the Information Business and Business Informatics areas. A demarcation regarding neighbour disciplines or institutions (MIS, Information Science etc) would be helpful. In particular the growing role of knowledge in its different aspects (organization, economy, design, learning etc) and its management should be included.

Younger staff should be encouraged for national and international community work. Since most currently employed assistants strive for a post-doctoral qualification, this point becomes important for the further career and has to be supported actively by the supervising professors.

For applied and empirical results a more international visibility is strongly recommended.

c) Personnel

The international exchange of researchers based on personal relationships has to be promoted and institutionalised also for the staff on the post-graduate level. An urgent task should be the integration of highly specialised researchers into appropriate teams. It is highly recommended that new research projects and grants for PhD students are acquired to assure the long-term development of the department and to contribute new staff with new ideas.

d) Equipment and Infrastructure

Workplace-PCs, notebooks and some other equipment like beamers have reached the end of their lifecycle. Substitution through more appropriate hardware is recommended.

e) Organization

A high basic teaching load and the introduction of a new study may not lead to a further decrease of teaching loads. Therefore it is recommended to allot more financial resources for auxiliary teaching through tutors and external lecturers.

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