

Opportunities and Risks of an Integrated Academic Support

**Integration of Information Services into
University Infrastructures - 7th Frankfurt
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General Background - DINI



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- In the year 2000 the Deutsche Initiative für Netzwerkinformation (DINI) / German Coalition of Network Information was founded: 10 theses “Changes in information infrastructure – challenges to universities and their information and communications facilities” is the DINI’s founding charter (s. <http://www.dini.de>)
- Thesis 4 states: “The universities need to establish information management structures to integrate departments. University managements, departments and central institutions ought to prepare a university development plan for the areas of information, communication and multimedia.”



DEUTSCHE INITIATIVE
FÜR NETZWERKINFORMATION E.V.



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Informationsinfrastrukturen im Wandel Informationsmanagement an deutschen Universitäten

Changing Infrastructures for Academic Services
Information Management in German Universities

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What is in the focus?



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- The focus of attention depends on the content of the core processes at the institutions concerned. If one regards the universities from the standpoint of information management, one can formulate five basic categories:
- the relationship between data, information and knowledge,
- creating, storing, making available and archiving information,
- controlling and securing the information process
- the strategic, tactical and operative management of information,
- the design of communications process.

Service Goals (1)



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- The information infrastructure support process has to be tailored to the core processes in the areas of research, teaching, studying and administration in order to provide the smoothest possible workflow support on a purely digital basis.
- The complex matter of access management must be addressed, which includes user-specific rights and roles. We can expect a dramatic increase in the use of mobile access scenarios from a variety of terminals. In order to meet the anticipated demand, a number of precautionary measures will have to be taken to protect identities, privacy and roaming and to provide security.

Service Goals (2)



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- Intuitive and comfortable navigation and research options will prove indispensable since they ensure rapid access to the desired information. It is of no concern here whether such information is available temporarily or permanently. The main aim must be to develop personalisable portal applications that satisfy the information and communications requirements of different users and target groups in their various work situations.

Organisational Goals (1)



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- Organisational development goals are closely linked to the service developments. If attention is devoted to providing workflow support in the areas of research, teaching, studies and administration, the allocation of services to the individual institutions will be relegated to the background. Of greater importance here is the implementation of networked functional areas, that are oriented to the processes and workflows of the clients and customers.
- From the formerly central tasks of the structural areas (library, media and computer centre, administration data processing), the spectrum of functions has now shifted to include interdisciplinary (inter-institutional) tasks: the development fields of e-learning, e-science and e-government being the prime examples here.

Organisational Goals (2)



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- The traditional hierarchical organisation structure is giving way to matrix-like structures that have to be adapted to changing requirements and new demand scenarios.
- The customer relationship will play an increasingly significant role not only in the desired workflow orientation of the service portfolios but also in the integration of mobile user scenarios. In a situation in which users feel exposed to an almost bewildering diversity of new offers, customer services and securing customer loyalty are becoming more and more important.

Technical Goals



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- In all likelihood, there will be an increasingly pronounced trend towards (networked) forms of co-operation (resource sharing) that link local centres and explicitly include out-tasking and out-sourcing options. These developments will be accompanied by the increasing standardisation of basic and routine services and the technical platforms on which they are based.
- A very important area for development will certainly lie in the technical support of workflow-based processes. At present, such support is primarily available for application environments, which are still very heterogeneous. As far as a SOA structure is concerned, the continued use of WEB standards and XML interfaces will play a key role in the integration of the technical systems.

The Example of the ICMC Cottbus (1)

- The new Information, Communications and Media Centre (ICMC) at the Technical University of Cottbus was created in early 2004 as a new central institution that would unite formerly separate structural areas – the library, the multi-media centre, the computing centre and the department for administration data processing – under the responsibility of a Chief Information Officer (the head of the ICMC).
- The first priority in developing integrated service structures must be to create a functional structure in which the ICMC's functional areas and areas of responsibility are viewed independently of the institutions performing the services.

The Example of the ICMC Cottbus (2)

- These areas include areas of responsibility currently handled by the library, the multimedia centre, the computing centre and the department for administrative data processing on the basis of their various core institutional competences.
- Due to their interdisciplinary character, these must be seen as central development areas:
 - Front Office
 - Innovation Office
 - Content and data management

ICMC - Frontoffice



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- The front office perfectly suits our goal of communicating, on a trans-institutional basis, the services offered by the functional areas of the ICMC to all internal and external target groups. In the process, the front office would serve as the ICMC's "user-interface".
- By networking itself with all the functional areas, the front office can offer integrated trans-functional services. These include stationary and virtual help-desk and support functions, which are to be graded in terms of their degree of specialisation. In this way, the front office operates as the central driving force behind the development of ICMC user-oriented services.

ICMC – Innovation Office



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- The innovation office has the goal of pragmatically conceiving research and development activities in the fields of information supply, data and knowledge management, the publication and dissemination of scientific information, on the one hand, and rapidly implementing these activities on a long-term basis, on the other. The innovation office is thus designed to function as the ICMC's development interface.
- Its tasks also include acquiring external funds and carrying out promoted projects such as the present BMBF project on e-learning integration. Hence, the innovation office will be assigned an important role in the further development of the ICMC.

- This new functional area is designed to network the following fields more closely: the service functions of supplying scientific information, multimedia production and publication, management and administration information and basic IT services.
- The aim is to achieve sustained use of the increased value derived from achieving maximum integration of the systems, optimising interfaces and implementing a central content and data-management system. The services thus effected operate in all areas of the ICMC: library and information services, file and storage management, content management systems, identity management and directory services, management and administration systems, learning platforms, intranet information systems, etc.

ICMC – Responsibility Structures (1)

- **Team 1:** Public-relations activities and budget-planning – ICMC director, head of the library;
- **Team 2:** Innovation office (in connection with the BMBF project on the integration of e-learning) - the head of the multimedia centre and the project manager of the BMBF project;
- **Team 3:** Front office – the head of the working group ‘Network and security services’, the head of the (library) front office;
- **Team 4:** Content and data management – the head of the department for business data processing, the head of the working group ‘Computing and Systems Services’, the WEB-CMS administrator;
- **Team 5:** Consolidation of the IT systems - the head of the working group ‘Computing and Systems Services, the head of the working group ‘Network and security services’.

ICMC – Responsibility Structures (2)



- The managerial tasks of an ICMC director as the university CIO involves:
- focusing responsibility for the university information structure – which is primarily in the hands of the ICMC. This will have a positive effect, especially with regard to the implementation of interdisciplinary projects and projects embracing a number of different fields (identity management, integrating e-learning, comprehensive use of HIS systems, re-centralisation, etc.),
- interdisciplinary co-ordination and flexibility with regard to the use of resources (budgets for personnel and physical resources, acquiring external funds), and to planning and implementing interdisciplinary services, developing interdisciplinary fields and personnel development,
- concerted representation of the ICMC and its sections inside as well as outside the university (public relations) and vis-à-vis the president and/or the executive board of the university (budget negotiations) and to communicate a service culture for the ICMC.

Problems and Risks (1)



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- The risks attending the desired changes are primarily due to the lack of both flexibility and IT governance. The public-law form of colleges and universities, which, in Germany, is based on the Öffentliche Dienst und Haushaltsrecht (law on public services and authorities) does not create conditions conducive to the flexible employment of financial resources and staff.
- On top of that, academic institutions still operate on the basis of a self-conception that asserts the right (anchored in Germany's Basic Law) to “freedom of research and teaching”. Hence, researchers and teaching staff in particular are granted freedoms that are not very consistent with clear management goals.

Problems and Risks (2)



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- The lack of IT governance described above must therefore be considered a far more serious problem than the shortage of financial resources, since it provides an inadequate basis for making decisions that have to be born by all universities and cannot, therefore, be the sole responsibility of infrastructure departments. Here, too, the Anglo-American universities are way ahead of their German counterparts.
- Finally, the self-conception of the staff in certain areas of the information infrastructure (libraries, media and computer centres, administration data processing) is largely shaped by the great emphasis placed on task-oriented work and far less by processes and workflows. As a result, services and service portfolios reveal a relatively low demand orientation. The reason for this is to be sought, not least, in the high degree of staff specialisation in areas that are sometimes very narrowly defined.

Conclusion (1)



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- The ever-greater standardisation of services and the introduction of 'productivity-oriented' input and output procedures in an academic environment, which are carried out within the framework of consolidating costs, cannot be easily reconciled with Humboldt's – still very influential – ideal.
- The CIO function of the ICMC director includes both selective and wide-ranging managerial tasks. Consequently, highly specialised tasks are the province of the second and third levels of management. The present administration and management concept envisages a second level of management (managing the sections of the ICMC) that will increasingly devote itself to managerial tasks.
- The ICMC's CIO model will encourage more efficient (across-the-board) control of the financial resources and staff capacities. Decisions will be made on a consensus basis (in the management committee) whenever possible. Overall responsibility will lie in the hands of the ICMC director at all times.

Conclusion (2)



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- On the whole, it can be said that the ICMC's innovatory approach lies in its consistent service-orientation and in the long-term consolidation of its service portfolio. This includes the standardisation of services, the selective implementation of necessary innovations and the standardisation of business routine, including the options of out-tasking and out-sourcing.
- In the context of the campaign 'Germany – land of ideas' joined with the soccer world championship 2006 the ICMC was selected as a 'place of ideas'. The ZEIT-Foundation Ebelin and Gerd Bucerius and the German association of libraries (DBV) awarded to the ICMC-library the prize 'Library of the year 2006'. For this the integration of the library in the service portfolio and the structure of the ICMC played an important role.

... thank you!



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