The architect’s profession has always been that of an organizer; a coordinator. In an increasingly specialized society such as ours there is an even greater demand for professionals with a wide range of management abilities. Today’s architect will have to organize and coordinate the flow, the means and the systematic storage of information in a project. For an institution that ‘produces’ architects, it is, in the opinion of the authors, vital to not only teach modern / contemporary methods of organizing information but also to practice them. If architecture students are to comprehend the necessity of organizing skills & tools, they will have to encounter these from day one of their student life. It is perhaps surprising (or not) that universities are not necessarily the best example of svelte, efficient organisations. On the contrary, they are often run on age-old principles that never change, despite acknowledged faults. A faculty of architecture has been developing a system to enable all members of the faculty, (teachers and students alike), with a central service for the management of information. This service is a set of web-based tools for organizing and managing the curriculum and all matters connected to that. The objective of the platform is to increase efficiency and transparency in the administration of the faculty. The effect of the system has been to develop a community. Two main aspects buttress this community. Firstly, the users are made aware of the presence of other users through a “Who’s On Campus” module. This module allows users to see which other users are logged in and using IP Addresses and WLAN Access Point Information, where they roughly are. Secondly, through a range of communication processes, informal communication is easily undertaken with other users online. The effect has been to improve the daily activities of the faculty. Achieving this has come about not by decree, but by convincing and observable benefits from the system.

**Keywords.** Virtual universities; internet collaboration; CSCW.
Planning teaching planning

Architects and Planners are in essence organisers. True, design plays a large part in the profile of architects. However, in the daily lives of architects, their duties have much more to do with information management than the management of building materials. The management of information and people is one of the most useful skills that future architects can learn. As such, it behooves us as educators to use the same kinds of planning skills we use to plan buildings to plan architectural education.

Architectural education has, in essence, not changed much since Durand’s architectural programme at the beginning of the 19th century (Pfammater 1997). The courses and their proportion to one another are surprisingly similar then as now. The addition of skills such as CAAD and perhaps newer building materials (e.g. steel reinforced concrete) are only minor additions to the curriculum.

Perhaps due to the longevity of the architectural pedagogy and the special atmosphere of the university itself, the processes involved in organising the education of architects were far from optimal and have remained so. The paper describes the attempt at the RWTH Aachen University Faculty of Architecture to change this situation.

The thesis was, that by implementing modern planning and communication tools, all members of the faculty (professors, tutors and students alike) would benefit (Dieckmann et al. 2003). As well, that by using these tools in organising the education, the students would see and learn how these methods can benefit their own lives. The result is that the faculty is much more effective, but also much closer knit. The tools help not only to create lean processes, but also to create fat communities.

Hanging paper in ivory towers

In Aachen, the university is spread about the city – a North American campus does not exist. As such, the students are often moving from building to building or to and from other parts of the city. What is more, due to good mass transit infrastructure, many students attend the RWTH Aachen but live over an hour’s commute away from Aachen.

Despite this fact, a student who wanted a critique with a professor needed to physically enter the building, find the door of the professor, check if a piece of paper with potential slots was hanged on the door, see if a slot was available, and then sign their name in the space available. Then, usually a day or two later, the student would return to the said door for the consultation with the professor. This situation repeats itself all over the university and is just one aspect of many where the potential for streamlining exists or existed.

Other paper producing procedures included keeping paper records of marks for students for years at a time and then having to enter these marks on a form once a student was ready to start his or her final project. This involved immense amounts of time and meters of bookshelves.

Another aspect of the Faculty of Architecture is that aside from the first year, there are no student workplaces. This is being rectified through new buildings and renovations, but at the time of the project’s creation, the spatial separation of the students was a hurdle to a good architectural education. The students are often required to undertake projects in groups of at least two, but as high as five team members. Coordination within these groups proved problematic and was in itself often the cause of sub-standard assignment work.

myReiff

The faculty of Architecture is located in the old Reiff Museum in the center of Aachen. As such, the faculty identifies itself with the name Reiff and publications often are named in a wordplay with the title Reiff. Thus, it was clear that the platform be named accordingly.

The identification with the Reiff Museum is also the core of the identification with the faculty of
architecture. This identification through the building served as a foundation for the heretofore community.

The decision to create a faculty platform was not explicit at first. A University system which enabled lecture theater bookings and an online list of lectures was a first step toward a general system. However, upon seeing the development roadmap and the accordingly unambitious time plan, the authors decided to start our own platform.

The platform is organised around the daily tasks that the institute needs to undertake, in order to carry out the syllabus. This user oriented design philosophy meant that the interface to the database information was based on real-world tasks rather than on design concepts. As a result, the graphics play second fiddle to functionality.

More importantly, communication, or rather, the potential for communication plays a strong part in the platform and its acceptance. In order to clarify this, the design of the interface is important to consider.

**myReiff interface**

The interface to the myReiff platform is divided into three areas. The main part of the screen is a content area that changes with each module. To the right is a menu of functions that allow short cuts to various
often used functions. At the bottom is a frame that is entitled “Who's On Campus”. This third frame is the core of the myReiff community (see figure 1).

Who's On Campus is the product of a research project funded by the German Federal Ministry of Education and Research, which investigated ways to leverage the effect of laptop use in Universities (Wallbaum et al. 2004). The concept was to make the website not merely a place where a user could peruse information alone, but to make clear and visible, who else is logged into the system. By accessing databases in the university's academic computing system, it is also possible to tell if the person is logged onto the system from a remote place, or from one of the access points of the university. Should the access point be part of the university's network, it is then possible to roughly say where the person is!

This “location based service” aroused the interest of various groups within the university, but issues of privacy were made marginal due to two specific aspects of the system design. Firstly, the system replicated only the processes that existed on paper, despite the potential to do more with the information available. Secondly, the online display is the result of a real time query from other databases and as such, neither provides nor records any kind of tracking, barring the person with a pencil in front of the computer screen. Thirdly, it allows online partners to establish that they are in reality only a few meters away. This helps to reconnect the virtual community back into the physical one.

Instead, Who's On Campus was not seen as a threat, but as an added value to the platform. In a school where so many members were outside the faculty building, the chance to meet people online was greeted with enthusiasm. This is partly due to the fact, that each user can not only see who is online, but can also communicate with the other person according to how freely they give their contact information to others. Another important feature is that the ability to be seen or see others is completely voluntary and reciprocal: members who do not wish to be seen cannot see others. Likewise, there are some members that are not visible, even for members who wish to be seen. In short: no lurking. This not only establishes a sense of order, but also a sense of trust.

Another essential aspect of the platform is that the users control and maintain their information themselves. Other than basic data such as name, birth date and student ID number, the members of the platform update their own contact information. What is more, they can selectively make this contact information visible to the entire community. This allows someone to hide their mailing address, but to make their ICQ and Skype accounts visible. Should another person also be online, it is a mere matter of two clicks and a Skype call has been initialised. Likewise, there is a platform-based pop-up message service, that allows for very quick and informal information to be exchanged. In this way, the platform serves as a kind of hallway for informal communication. As such, the platform is in effect, a virtual fifth floor to the four-storey Reiff Museum (see figure 2).

Other communication support includes a forum where general or course specific discussions can be carried out. Search functions through previous messages, the forums, as well as through course member photographs allow the users to continue discussions over different modules in the platform.

**Course support**

As was mentioned previously, the platform is centered primarily around the task of organising coursework. This means that for the tutors and professors, the information they need to find or disperse is readily available. As a direct riposte to the consultation timeslot problem, a tutor can now make time slots available on the platform. As each student is logged into the system, identification has already taken place. A student need merely log in from anywhere and then click to book a consultation slots with their professor. This eliminates unnecessary travel and
unnecessary frustration. Additionally, it also allows the tutor to see beforehand who is booked for that day, and possibly to prepare for the meeting.

The time slots can be offered in general to the students or specifically to the participants in a specific course or design studio. With specific time slots, the students are automatically notified by email, that additional consultation periods have been offered (see figure 3).

Other specific course information is also documented on the platform. One of the first and most effective modules was the course placement module. Students in the upper level can select in a prioritised list the courses and design studios they would like to attend. Using a selection process based on the Borda count, the system is able to place all but a handful of students in the studios they wish to attend.

Once the placement has taken place, the participant lists are made available to the tutors. During the semester, the student’s progress can be tracked through assignment modules and partial marking. At the end of the semester, the tutors enter the marks each student received. The students then see their marks online. An interesting effect is that the students see only their marks and not the spectrum that a normal paper list would provide. When a tutor looks up a student on the system, they see the student’s record with that institute, but not from other institutes. The student, however, sees all of their own marks.

Students can also search for classmates within their courses. Through a filter function called “myReiff Faces”, they can then get a list of course participants with a photo and the contact information each student has made public.
Community

The communication and filter modules are buttressed by another module which has helped greatly to establish the community. This is called mySkills and is a way of documenting the skills each student or tutor has. The skill set is ever expanding and members are not limited to their number of skills. Skill levels are defined with three levels and the range of skills is constantly expanding. Among the skills are languages, experience in other countries, experience with different computer programs, special training, and social skills such as student and mother or as foreigner with experience winding your way through the bureaucracy.

For a student planning a trip or needing help with a translation, a simple search in mySkills brings a list of people with these skills, their level of expertise, and additional comments offered by the person. This allows the members to be more than a name and a face and to connect the people with expertise with those who need or want it. As with most aspects of the platform, skill description is voluntary.

The voluntary nature of the platform is also extended to the faculty. The system was built to serve primarily the CAAD institute, but was conceived so as to be expandable, should others show interest. The success of the platform can be measured in that since 2006, every single institute and professor in the faculty uses the system. Even those that were reluctant were badgered by the students, not the faculty. As such, myReiff is a bottom up project based on the needs of a well defined community. It has served to streamline many of the processes and at the same time, strengthen the community.
The Platform is run on open source software (mySQL, PHP, Linux) and developed with the principles of open source software development.

References


