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UMIT RECTOR ¹



A New University is Founded

In the first year of the third millennium, in October of the year 2001, a new university was opened in Innsbruck; die Private Universität für Medizinische Informatik und Technik Tirol - the University for Health Informatics and Technology Tyrol, UMIT (Figure 1).



Figure 1. Until its own building is complete, UMIT is found in the Educational Center West of the TILAK, Innrain 98, Innsbruck (3rd building from right)

UMIT's goal is to explore opportunities and practical applications of information and communication technologies, so as to contribute to high-quality, efficient health care that does justice to the individual and to society, and to contribute to progress in medical and health sciences research. It's goal is also to contribute to advances in medical informatics².

In my opinion, there is no doubt that the founding was a meaningful, necessary and forward-looking decision for Tyrol, Austria and beyond.

¹ The speech by Prof. Haux was published in the journal "Informatik, Biometrie und Epidemiologie in Medizin und Biologie" (Informatics, Biometry and Epidemiology in Medicine and Biology) 2002;33:496-500 under the title "Gute Medizin erfordert gute Information" (Good medicine and good healthcare demand good information). The text printed in large was spoken and complimented with free speech.

² From the preamble of the UMIT constitution. The preamble reads:

"The University for Health Informatics and Technology Tyrol sets for itself the following goals:

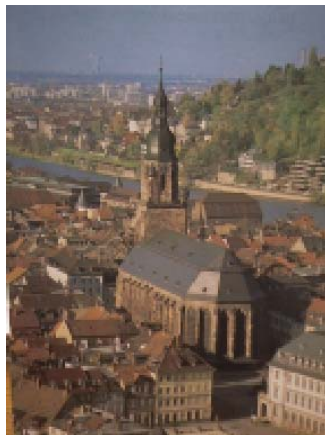
- To explore opportunities and practical applications of information and communication technologies, so as to contribute to high-quality, efficient health care that does justice to the individual and to society, and to contribute to progress in medical and health sciences research.
- To respect the freedom of science and its teachings in a community of students and teachers, who engage in open scholarly inquiry following principles of good scientific practice, always striving towards the highest quality in research and education.
- To promote the development and intellectual growth of the students, so that upon graduation they are well prepared for professional and related social responsibilities.
- To seek cooperation with other universities and research institutions, in particular with the LEOPOLD-FRANZENS-University of Innsbruck, and with health care institutions and other health related enterprises.

Medicine, Healthcare and the Information Society

Our society lived through a change in the second half of the last century through information and communication technology which, in this short period of time, can barely be resembled in history.

Who can imagine everyday life without a computer or the Internet? Nowadays more personal computers are purchased in the world than cars. Information and communication technology has become one of the most important economical factors in the world. The 21st century is spoken of as the century of the information society.

This change has also manifested itself in the arts. I would like to show this on hand of the following pictures (Figures 2 and 3). You can see here the Heidelberg “Heiliggeistkirche” (Holy Spirit Church) and a new church window which was fitted 3 years ago, dedicated to the themes spirit and knowledge³. If you take a closer look you will see a laptop. It stands as a symbol of knowledge beside the books of the “Bibliotheka Palatina”.



Figures 2 and 3: Church window in the Heidelberg Holy Spirit Church.

Medicine and healthcare – and therefore all of us – have already profited considerably from the societal change, that is the development towards an information society. Computers have already become tools that we can't imagine living without whether it be for diagnostics, therapy or for the organization of healthcare systems. Here is where I must add a comment. It was not just the computer alone, but also in particular the further development of methods for the systematic processing of data, information and knowledge⁴.

³ Church window in the Heidelberg Holy Spirit Church , designed by Hella Santarossa. The theme: The world is full of the spirit of god. Regard is taken to the quotes from Salomon.

⁴ VAN BEMMEL JH. Medical Data, Information, and Knowledge [Editorial]. *Methods Inf Med* 1988; 27: 109-10. C.f. also *Methods Inf Med* 2001; 40: 272-4.

As a bold example I would like to mention computer tomography for which the developers ALLAN M. CORMACK and GODFREY N. HOUNSFELD were awarded the Nobel prize in medicine and physiology in the year 1979. In the description of this process it was already obvious that without computers and without the appropriate methods for the processing of data, it would not have been possible. I would like to mention another example. Which physician can at all imagine not being able to access Medline⁵ in the Internet, in order to query the worldwide largest most comprehensive collection of high-quality medical and health knowledge in a matter of seconds? All of this was not possible a few decades ago. For most people it was not even imaginable.

But this societal change into an information society still hasn't seen its end. I am convinced that we are currently at the beginning, rather than at the end, of this change. The spectrum of data has also grown. It now reaches from the micro-data of the genome, to patient specific data, to the macro-data of the population or from healthcare systems⁶.

We can take from the current daily news that humans can be identified and located through implanted computer chips⁷. The retrieval of vital parameters through the use of such modalities is foreseeable. Will this turn us into an Orwellian surveillance state or could such procedures save lives and help people? A scientist is currently testing a direct connection between the nervous system and computers⁸ on himself in order to examine the possibilities of an expanded level of memory performance and processing ability. Studies report an overload of electronic mail received by employees in companies resulting in stress and inefficiency⁹. How can you extract correct information and knowledge without it coming to such an overload?

Diagnostics and therapy will also be improved in the future through the further development of methods and tools for information processing. Medical knowledge will be able to be prepared not just for the physician, but also specifically for the patient, that is, the individual person. Within the scope of networking, in the organization of healthcare, interdisciplinary care will further be able to be directed to the individual health problems of single people in all areas from preventative measures, to the treatment of acute illnesses, to the support of follow-up care for chronic illnesses. Not least, through the progress in information technology, the progress in methods for the systematic processing of data, information and knowledge, we will be able to come to a better understanding of illness and health and to a continuing systematization of medicine.

⁵ <http://www.nlm.nih.gov>.

⁶ KULIKOWSKI CA. A Micro-Macro Spectrum of Medical Informatics Challenges and Opportunities: From the Informatics of Molecular Medicine to that of Transforming Health Care in a Globalizing Society. *Methods Inf Med* 2002; 41: 20-4.

⁷ Der gechippte Mensch ist nicht länger ein bloßes Hirngespinnst (The chipped human is no longer simple fantasy.) On the title page of the Frankfurt Review on Tuesday March 5th, 2002.

⁸ ORF2, in a show from „Zeit im Bild 2“ (Time in picture form part 2) in March 2002.

⁹ Angestellte leiden unter Emails (Employees suffer from E-mails.) Rhein-Neckar-Newspaper from Saturday/Sunday March 23rd/24th, 2002.

UMIT Tasks

In order to contribute to this progress, well educated specialists are needed. Moreover, a great need for interdisciplinary research exists. Both would like to be recognized by UMIT. And both belong together. With this, UMIT strives for an international top position in education and research. In the current initial steps a special focus is on the area of medical informatics. This will only succeed by collaborating together, be it here locally, or on an international level.

Only the future will show how much we will be part of the international leading universal research and educational institutes. It would be appropriate to look back, perhaps on this day, 10 years from now.

UMIT and Tyrol

“But we want to promote sciences, arts and eloquentness (which alone distinguishes humans from other living beings)”¹⁰. This was written on March 7th, 1497 by the then Emperor of the German Nation’s Holy Roman Empire at the appointment of a professor at the University of Vienna which was founded in 1365. It was Emperor Maximilian the 1st whose name is closely associated with Innsbruck and Tyrol.

UMIT has found it’s home here in Innsbruck, Tyrol, in the center of Europe. An early chronicler described the location advantages of the LEOPOLD-FRANZENS-University, founded in 1669, in the following way: “The healthy air and the few possibilities for diversion are excellent recommendations.”

I would like to further cite: “While so to say all of Germany feels the hard destiny of the murderous wars; then the youth, free of any worries, can calmly report the muse to Innsbruck that the tremendous Alpine range protects them from every enemy attack”¹¹.

Today there are three factors that allegedly lead to the founding of UMIT here. And by far it is not a coincidence that this university was built here. Tyrol has developed into an impressive scientific region, an economical region and into a region with attractive healthcare institutions. A continuation of this development is foreseen and intended. UMIT understands itself to be part of Tyrol and part of these regions. UMIT strives for cooperation with other institutions, especially here in Innsbruck with the LEOPOLD-FRANZENS-University ¹². UMIT also feels closely connected with the TILAK institutions¹³.

¹⁰ „Wir aber wollen Wissenschaften, Künste und Beredsamkeit fördern (was allein alle Menschen von den andern Lebewesen unterscheidet)“. WIESFLECKER-FRIEDHUBER I. Sources of the history of Maximilian the 1st and his time. P. 82. Darmstadt: Scientific Book Society, 1996

¹¹ „Die gesunde Luft und die wenige Gelegenheit zur Zerstreung sind vorzügliche Empfehlungen.“ - „Wen so zu sagen ganz Teutschland die harten Schicksale der mörderischen Kriege empfindet; so kann der Jüngling von allen Sorgen befreit ruhig zu Innsbruck den Musen opfern, da ihm die ungeheuren Alpengebirge vor jedem feindlichen Überfall in Sicherheit setzen“ LEOPOLD-FRANZENS-Universität Innsbruck, P. 30. Editors: University of Innsbruck, H. Moser and C. Smekal. Publication series of the University of Innsbruck, Volume 237.

¹² <http://www.uibk.ac.at>

¹³ Tyrolean Provincial Hospitals GmbH, <http://www.tilak.or.at>.

What does UMIT expect from you? What do we await, since we have decided to come here to Innsbruck? We await that you critically accompany this university and support its goals. We await that you receive UMIT as a partner in the circle of universities here in Tyrol and in Austria, but also in Europe and the entire world. This is so that we all struggle together for the best solutions through fair cooperation and collegial competition.

The physician and philosopher KARL JASPERS accurately expressed this in his definition of philosophy as “To attempt the communication from man to man, in loving contest.”¹⁴.

Expression of thanks

I would like to express my respect and thanks to all of those who were involved in the founding of this University. I would like to thank those who initiated and accompanied UMIT at its forming and all of those who worked on its structural conditions so that this University could evolve in such a short amount of time. I say this as Rector as well as a representative of, and behalf of, all of the members of this University.

I would also like to thank those who prepared this opening ceremony with great care. And I would like to thank all of you. You all came here today to participate in the founding of UMIT and thereby helping to create this worthy framework. You came from - please permit me to now use the alphabet as a criterion for order –

A for Abidjan on the Ivory Coast or Amsterdam, from
B for Bethesda by Washington, through to
W for Wellington in New Zealand or Wien (Vienna), through to
Z for Zirl in Tyrol.

Interestingly, the letter I for Innsbruck once again lies fairly central, by the way, right beside H for Heidelberg or Heilbronn and, not lastly, Hall.

Final Remarks

Good medicine and good healthcare demand good information¹⁵! UMIT would like to enrich this region, Europe and the world through its presence. UMIT would like to contribute to ensuring the further improvement of medicine and healthcare through advances in the systematic processing of data, information and knowledge and advances in information and communication technology. UMIT would also like to have a part in ensuring that many people will be able to afford this care. UMIT would like to make sure that technical advancements serve humans, not the other way around.

¹⁴ „Kommunikation von Mensch zu Mensch in liebendem Kampfe wagen“. Einführung in die Philosophie. JASPERS K. (Introduction to Philosophy), P.14. Munich:Piper;1950. Citation from the new edition in 1971.

¹⁵ Guiding principle of the journal *Methods of Information in Medicine*, introduced as of issue 1/2002. The guiding principle follows the one of the National Library of Medicine (NLM) in the USA. ‘Good medicine demands good information’, which was presented at an exhibit of the NLM in the year 2001.

We heard musical pieces from Ludwig van Beethoven, Wolfgang Amadeus Mozart and Johann Sebastian Bach, who impressively covered in his Art of the Fugue that formal structures and systematic strengths - both important components of my and many of your field – and beauty can belong together.

As a conclusion, another piece from Wolfgang Amadeus Mozart will be played. Following this, all of you are invited to a reception in the Crystal Foyer, directly outside of this theater. Quod bonum faustum felix fortunatunque sit! The Romans already opened their schools and academies with this saying. What is good and favorable, happy and flourishing¹⁶!

¹⁶ These were the wishes of Professor HERBERT IMMICH (1917-2002), former director of the Institute for Medical Documentation, Statistics and Data Processing of the University of Heidelberg, and one of my most important teachers, he sent in his letter of 24.3.2002.