Anno 2013

Libera Università di BOLZANO >> Sua-Rd di Struttura: "Facoltà di SCIENZE e TECNOLOGIE INFORMATICHE"

Parte III: Terza missione

QUADRO I.0	I.0 Descrizione generale delle attività di terza missione

The Third Mission activities of the faculty concentrate on the two areas of education and transfer of knowledge and know-how.

1. Education Activities

The education activities are addressed mainly at pupils and school teachers.

1.1. Activities Addressing Pupils

Since its foundation in 2001, the faculty has organized presentations at high schools to raise interest in its research and its study programs. In the period 2011-13, on average six to eight such presentations were given each year at high schools, most of them in the province of Bolzano, in some cases also at schools in Trentino.

These visits at high schools have been gradually extended to a program that includes also pupils at middle and primary schools and that offers possibilities to engage more deeply and over a longer period with computer science topics.

As part of the Junior Uni the faculty organized each year laboratories for pupils of primary and middle schools on various computer science related subjects. These laboratories took place at the main Unibz buildings or at faculty premises. Topics were: robot programming, programming of microcontrollers, usage of geographic information systems, and modeling of activities by process modeling languages. As further initiatives for schools, a Lean Lego Game was offered (a crash course for children on Lean Management) as well as games with tablet computers to stimulate creativity. These courses were held both in German and Italian.

In addition, the faculty offered workshops for school classes, which were held in collaboration with the teachers, directly at the school. Visited schools during school year 2012-13 were Italian primary schools in Bolzano and Brunico, and a middle school in Merano. The workshops comprised experiments on co-design of computer games, related to the research conducted at the faculty. These schools also visited Unibz at the end of the experience.

For high school pupils, the faculty organized in 2012, in collaboration with the Italian School Office (intendenza scolastica), a Summer School on Mobile Development, where were introduced during an entire week into techniques to program apps on mobile phones. The participants came from Italian and German schools in Bolzano, Brunico, and Merano.

1.2. Activities Addressing Teachers

Technology Enhanced Learning is one of the areas in which the faculty conducts research. It collaborates in various ways with the school administration to transfer knowledge on this subject.

In 2012, consultancy meetings with computer science teachers were organized on the use of tablet computers in classes and on the support for teaching organization by the learning platform Moodle. In 2013, the meetings led to more structured seminars and the range of topics was extended to the use of software for children with special hearing needs.

In June 2013, a Workshop TEL@FUB2013 on technology-enhanced learning was held at the faculty, with the participation of teachers from the region.

2. Transfer of Knowledge and Know-How

The faculty has worked together with public institutions on projects to improve their services. In the collaboration with companies, the goal was to enable technology transfers and to establish contacts between students and businesses.

2.1. Collaboration with Public Institutions

The main collaborations with public institutions were in the health sector, notably with the hospital of Merano, in tourism, agriculture, the management of public traffic, and the school administration.

With the hospital of Merano, the faculty worked on several projects to simplify for patients the access to medical information and to personalize the treatment so as to take into account the specificities of each patient's health state. This included the development of mobile information systems, procedures to extract information from clinical guidelines, and techniques for the automatic comparison between patient profiles medical histories. For instance, in order to adjust chemotherapy better to the individual characteristics of a patient, data on course of past treatments were evaluated with machine learning techniques to better understand how to structure such a therapy.

Research on recommender systems led to the development of the mobile app "South Tyrol Suggests", to be used both by citizens and tourists, which can be downloaded from the Google Play Store. If offers personalized recommendations of events, tourist attractions, and restaurants, as well as services for route planning with different means of transport (by foot, bicycle, bus, car), for finding empty parking space, and for searching general points of interest.

In the project DASA (Data Analysis for a Sustainable Agriculture) the faculty, together with the Research Centre for Agriculture and Forestry Laimburg and the Südtiroler Beratungsring (South Tyrolean Agricultural Consultancy Centre), developed solutions for the analysis, the monitoring and the quality control of agricultural data, with a focus on meteorological data.

In the project BZ traffic, funded by the municipality of Bolzano, efficient route finding algorithms for traffic networks were developed in collaboration with the technology transfer institute TIS and industrial partners. Moreover, a park occupancy prediction model was developed, so that now it is possible to obtain predictions of the future hours occupancy state of all the large parking area in Bolzano.

The faculty contributed to the project "SIS-We connect people", which made a survey of the existing information systems in the schools in South Tyrol and formulated requirements for a future school information system.

2.2. Collaboration with the Business World

From its start, the faculty had collaborations with regional companies, in particular through internships of students and through innovation projects or projects directed towards the development of specific applications. In the period 2011-2013, such projects were existed mainly on recommender systems, software quality, mobile systems, database technology, and data and process modeling. For example, from 2011 to 2012 the faculty conducted the project FITTS in collaboration with the companies ACS Data Systems and Opera 21, both based in the province of Bolzano, to develop a heuristic interactive itinerary planner, which assists tourists in their trip planning process. The system takes a set of user-specified preferences and a maximal time period as input and computes a set of candidate itineraries that maximize the number of points of interests, which satisfy the users' preferences.

In 2013, the faculty established a close collaboration with the IT section of the South Tyrolean employers' association (Unternehmerverband/Assoimprenditori), to systematically foster contacts with the regional industry. The two sides agreed to organize as a first initiative a series of workshops under the title Computer Science Research Meets Business, with speakers from research and companies, each one dedicated to a topic of current interest. The first workshop in this series was held in June 2013 and devoted to cloud computing.

To promote start-up initiatives, the faculty has organized each year since 2012 the FUB Entrepreneurship Evening. Each event has three components: concepts for novel IT businesses presented by students of the university, presentations by successful start-up companies, and information about support for start-ups by incubators and funding institutions.

3. Planning of Third Mission Activities

As part of its yearly activity plan, the faculty identifies the overall goals of its Third Mission and agrees on key activities. During the year, the faculty administration documents the events. At the end of each year, the faculty council approves a report that summarizes the activities of the completed period. Specifically, the faculty identified activities with schools as crucial for increasing awareness of the faculty potential and for recruiting local students and decided to expand them.

Quadro I.1 - PROPRIETÀ INTELLETTUALE

QUADRO I.1.a — **I.1.a Brevetti**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo

QUADRO I.1.b — **I.1.b Privative vegetali**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo

Quadro I.2 - SPIN-OFF

QUADRO I.2 — **I.2 Imprese spin-off**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo

Quadro I.3 - ATTIVITÀ CONTO TERZI

QUADRO I.3 — **I.3 Entrate conto terzi**

Struttura	Attivita' commerciale (1310)	Entrate finalizzate da attivita' convenzionate	Trasferimenti correnti da altri soggetti	Trasferimenti per investimenti da altri soggetti
Facoltà di SCIENZE e TECNOLOGIE INFORMATICHE	86.260,00	0,00	0,00	0,00

Quadro I.4 - PUBLIC ENGAGEMENT

QUADRO I.4 — **I.4 Monitoraggio delle attività di PE**

Dipartimento/Facoltà: conduce un monitoraggio delle attività di Public Engagement?	N.Schede Iniziative
Si	3

Quadro I.5 - PATRIMONIO CULTURALE

QUADRO I.5.a — **I.5.a Scavi archeologici**

Nessuna scheda inserita

QUADRO I.5.b — **I.5.b Poli museali**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo

QUADRO I.5.c — **I.5.c Immobili storici**

Quadro abilitato in compilazione per il livello di aggregazione dati Ateneo

Quadro I.6 - TUTELA DELLA SALUTE

QUADRO I.6.a — **I.6.a Trial clinici**

Nessuna scheda inserita

QUADRO I.6.b — **I.6.b Centri di Ricerca Clinica e Bio-Banche**

Nessuna scheda inserita

QUADRO I.6.c — **I.6.c Attività di educazione continua in Medicina**

Nessuna scheda inserita

Quadro I.7 - FORMAZIONE CONTINUA

QUADRO I.7.a — **I.7.a Attività di formazione continua**

Nessuna scheda inserita

QUADRO I.7.b — **I.7.b Curricula co-progettati**

Nessuna scheda inserita

Quadro I.8 - STRUTTURE DI INTERMEDIAZIONE

QUADRO I.8.a — **I.8.a Uffici di Trasferimento Tecnologico**

Quadro abilitato in compilazione per il livello di aggregazione dati Ateneo

QUADRO I.8.b — **I.8.b Uffici di Placement**

N.	Denominazione	Anno Inizio attività	Budget impegnato per la gestione dell'attività nell'anno	N.ro di addetti in equivalenti a tempo pieno (ETP)
1.	Servizio Tircocini e Placement / Praktika- und Jobservice / Career Service	2002	32.000,00	3,50

QUADRO I.8.c — **I.8.c Incubatori**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo

QUADRO I.8.d — **I.8.d Consorzi e associazioni per la Terza Missione**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo

QUADRO I.8.e — **I.8.e Parchi Scientifici**

Quadro abilitato in compilazione per il livello di aggregazione dati dell'Ateneo