

A Word from the Rector

ON 5 FEBRUARY 2003, EU Research Commissioner, Philippe Busquin and the EU Commissioner for Education and Culture, Viviane Reding, held a joint press conference to launch a debate on the role of universities in the Europe of knowledge. "If we want to be a leading player in the global knowledge-based society," Commissioner Busquin said, "Europe has to nurture its universities ... investing in universities is one of the best investments we can make for our future." This was further endorsed by Commissioner Reding who stated



unequivocally: "If we do not think now about how to support universities for the future, tomorrow it will be too late." They both underlined the fact that higher education is a public good and therefore a public responsibility. In the absence of adequate funding, the capacity of European universities to attract and retain the best talent and to strengthen the excellence of their research and teaching activities will, no doubt, be seriously compromised.

In addressing the *European Universities' Association* (EUA) meeting held in Graz in May 2003, Commissioner Reding insisted on the necessity for universities Europe-wide to conform to the Bologna process "Bologna cannot be implemented à *la carte*, it has to be done across the board and wholeheartedly." The University of Malta is in an advantageous position because the three cycle system proposed by Bologna has been in place for decades while this year saw the implementation of the *European Credit Transfer System* (ECTS) and the harmonisation of the structure of all courses campuswide.

Economic growth is dictating much of the change in the nature and delivery of education. Human capital is critical for the future wealth and health of a nation. The nature of qualifications and degree equivalence are important issues both for employers as well as for students who need to know how their qualifications rate in the world scales. Their qualifications need to have maximum acceptability across the world. Only in this way, will they be able to participate fully in a knowledge-based society. Our University, over the past few years, has become increasingly aware of the complex interface between higher education and employment and has done its best to work in tandem with those sectors of business and industry which ought to benefit most from the expertise imparted to its graduates.

In this edition of the University of Malta's *Annual Report*, I welcome the contribution from Dr. Mark W. Smith from Trident Technical College, South Carolina, USA who was Visiting Fulbright Scholar in the Department of Information Systems, Faculty of Science, between February and June 2003. According to Dr. Smith, the University of Malta is in a unique position to assume a leadership role in higher education as a regional centre for distance learning.

Dr. John Abela looks at the future of ICT in Malta. He states emphatically that in order to survive, our ICT industry must be able to compete and excel in the huge, completely liberalized EU market.

In his article entitled: *Crisis and the social desire for history*, Dr. John Chircop explores the notion that history has a social purpose, the most significant being to ameliorate the quality of life of the people. The setting up of the *Oral History Centre and Archive* at the University of Malta has provided a new research framework through which invaluable data is being accumulated.

Dr. Irene Sciriha enthuses about the value of Mathematics as a creative discipline. She sees the "university campus [as] the cradle in which our students are encouraged to lead, to set their goals, to set policies and take decisions that affect society."

The *Euro-Mediterranean Centre for Educational Research* is one of the University's more recently established entities. Highlighting the challenges that education systems in the Euro-Mediterranean region are facing, its Director, Professor Ronald Sultana, outlines EMCER's endeavours in its search to become a focus of excellence in the interdisciplinary study of Mediterranean and European issues.

Dr. Josanne Vassallo addresses the topical issue of the future of academic medicine in her paper. Even though basic scientists and clinicians working within the University's Faculty of Medicine and Surgery have traditionally been limited by the constraints plaguing academic medical institutions worldwide, they have persevered in spite of the odds.

Dr. Ing. Jonathan C. Borg, Head, Department of Manufacturing Engineering in collaboration with engineer Mary Grace Micallef from *WasteServ Malta Ltd.* reports on an EU project in which they are participating together with partners from Italy, Belgium, The Netherlands and Latvia.

In conclusion, I would like to thank the contributors who through giving of their time and expertise made this publication possible.

Roger Ellul-Micallef Rector

Round-Up 2003

January

Professor Luzius Wildhaber, President of the European Court of Human Rights delivered a public lecture entitled *The role of the ECHR in the protection and promotion of Human Rights and Fundamental Freedoms with reference to recent judgments* when he visited Malta in mid-January.

Mark W. Smith, Ed.D. was in Malta through the Fulbright programme and was attached to the Department of Computer Information Systems. He hails from Trident Technical College, Charleston, USA, where he is instructor in Information Systems in the areas of Object Oriented and Structured Programming, Visual BASIC, Java Applets, Microcomputer Tools and Techniques.

Under the auspices of the *Alliance Française* and the Embassy of France, Professor Roger Ellul-Micallef gave a lecture entitled: *Men of Montpellier* which dealt with Franco-Maltese medical connections at the time of the Knights while Professor Joe Friggieri lectured on Voltaire within the framework of lectures organised by the *Alliance Française* on French philosophers.



H.E. the Ambassador of the Libyan Arab Jamahariya, Dr. Ali Muhammed Saleh Najem presented the University Library with a selection of books covering aspects of Libyan social life and culture including literature, language, politics and history. This donation, in a series sponsored by the Libyan Cultural Centre, was handed over to University Rector Professor Roger Ellul-Micallef

in the presence of Dr. Abdul Adel El Mahjub Director of the Libyan Cultural Centre, University Pro-Rector Professor C. J. Farrugia, Library Director, Mr. A. Mangion, Libyan Embassy officials and academic members of staff from the University's Department of Arabic and Near Eastern Studies.

Mr. Giovanni Buttigieg on behalf of the Malta Council of Science and Technology presented the Junior College Science Museum with items of historical and anecdotal interest directly connected with Science Education. The Science Museum now displays a total of nearly 290 scientific exhibits. Senior college administrators, subject coordinators, technical and teaching staff of the various departments were present.

Professor Christopher New who has taught at universities in England, America and Asia and was Head of the Department of Philosophy at Hong Kong University addressed the first 2003 meeting of the *Philosophy Society* with a talk entitled: *The Phantom at the Opera*.

February

Professor Anthony Frendo, Head of Department of Arabic and Near Eastern Studies, spoke to The Malta Archaeological Society on Khirbet Qumran and the Dead Sea Scrolls, the excavation of the Qumran settlement and the chance find of the Dead Sea Scrolls in 1947 being amongst the finest archaeological finds of the twentieth century.

Under the auspices of the University's Department of Family Medicine, Faculty of Medicine & Surgery, the Malta College of Family Doctors organised its Winter Continuing Professional Development Meeting on *The Future of Family Medicine in Malta and the Role of the Malta College of Family Doctors*. This was addressed by speakers from both the MCFD, the Medical Association of Malta (MAM) as well as by the Director-General (Health). The meeting was sponsored by *Delta Ltd.*

Professor Kenneth Falconer from the University of St. Andrews, addressed the first 2003 Meeting of the *Malta Mathematical Society* on *Fractals, the new Geometry* in which field much of his research and many of his publications are concentrated.

The interdisciplinary 7th Annual Work in Progress Seminar Series: Untangling Knots in the Social Sciences got underway with a topical debate between politicians Michael Frendo and Evarist Bartolo entitled To EU or not to EU? Is that the question? Most seminars this year were organized around the timely and relevant theme of Europe, Malta and the Mediterranean. The principal aims of the WIPSS have always been three-fold: to give researchers a friendly platform to present their work, to encourage a regular free-flowing exchange of ideas among academics and students and to act as an interface between the community and the University.

In 2002, a decision was taken to open the University section of the Argotti Gardens for school visits following extensive rehabilitation works. The exercise was quite a success and attracted over 800 school children. The University has had possession of these gardens since 1855 and its history is intricately linked to them. This year, the tours were again offered between the third week of February and the end of May. Tours comprised a short talk, tour of the gardens and some hands-on practical exercises for students, particularly those studying biology, geography and ecology.

Sir Michael Jay, Permanent Undersecretary at the Foreign and Commonwealth Office and Head of the British Diplomatic Service visited Malta in mid-February. In the course of his visit he gave a talk at the University entitled *UK/Malta: Friends developing links for a New Generation* which dealt with issues such as education, culture and research.

Dott.ssa Rosanna Cravenna, Director of the Italian Cultural Institute, gave a lecture on *Italia - non solo* arte at the University which was attended by the cultural attaché, Dott.ssa Patricia Pattarino, and the Italian Ambassador, H.E. Alvise Memmo, among others.

Heart to Heart: Looking after your and your loved ones' heart. On Valentine's Day a group of 4th year Home Economics students, members of HEiA (Home Economists in Action) organised a halfday event to promote heart health amongst university students. Emphasis was laid on the foods that one should consume for a healthy diet in order to maintain a healthy heart. An information display booth was set up where educational brochures were made available.

Theatre Traffic, the monthly youth discussion forum organised as a collaborative initiative between the Mediterranean Institute's Theatre Studies Programme and The Manoel Theatre, discussed Theatre, Culture and the European Union. A conference entitled Maltese Theatre in 2020: possible scenarios was also held at the Theatre's Sala Isouard.

Professor Alain Blondy, professor of History at the *Université de Paris-Sorbonne* (Paris IV) was visiting guest lecturer in the Department of French, Faculty of Arts between February and mid-March. He gave a series of lectures under the general title *Histoire de la France*. The aim of these lectures was to provide the means of understanding the evolution of France in order to better situate its literature, philosophy and art in a historical context.

Students and staff from the Department of Mathematics, Faculty of Science presented ideas from various fields of Mathematics at *The Collection VII* Workshop. Topics included Random Numbers, Hilbert Spaces, Interlacing and Carbon Balls, Lambda Calculus and Perfect Numbers. A brief session for spontaneous problem posing closed the workshop.

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Professor Ed Galea, a Maltese-Australian currently Professor of Computer Modeling at Greenwich University who is the leading world authority on Evacuation, Modeling and Software Design in Fire Safety Engineering gave a public lecture on Burning Questions - Model Answers: use of computer simulation in fire engineering.

March



Jean Paul Baldacchino, a 3rd year BA (Honours) Anthropology student was the recipient of the *Dean's Award* of the Faculty of Arts for this year, having obtained 40 straight A grades over a period of two years. The Rector, Professor Roger Ellul-Micallef, and the Dean of the Faculty of Arts, Professor Dominic Fenech, presented him with his award. The annual awards are sponsored by the Bank of Valletta, which was represented at the ceremony by the branch manager of BoV on Campus, Ms Emily Grech.

A very interesting Folklore Exhibition covering miniature models of Maltese tools, agricultural implements and musical folklore instruments as well as a cross-section of literature on the subject was mounted at the University of Malta Library and inaugurated by the Rector. The exhibition was organized by the Department of Maltese on the initiative of folklore scholar Dr. Ġorġ Mifsud Chircop, with the collaboration of Mr. Frans Farrugia who produced the painstakingly accurate miniature models. Interactive sessions for secondary school students were organized.

Graduates of the University's Faculty of Economics, Management and Accountancy presented research they had conducted for their dissertations at a well attended symposium entitled: Strengthening Links with Maltese Business which included students and quests from all areas of Business and Industry. Professor Lino Briguglio, Head of FEMA's Department of Economics, chaired the meeting. The seven dissertations presented were a very small sample of the 200 or so submitted for examination in June 2002. The Dean of the Faculty, Professor Daniel Darmanin stressed the importance of giving exposure to the research work done by the students since this can help to strengthen the links between Business, Industry and the University. The Hon. Josef Bonnici, Minister for Economic Affairs was guest of honour at the Symposium.

Professor Johannes Lelieveld, Director of the Airchemistry Division of the Max Planck Institute for Chemistry, Mainz, Germany gave a public lecture entitled: *Global Air Pollution Crossroads Over the Mediterranean* organised by the Atmospheric Pollution Facility of the Physics Department in collaboration with the Malta Chamber of Scientists when he visited Malta in early March.

Professor Daniel Schugurensky, an Argentinian scholar with a considerable international reputation in social and educational research from the Ontario Institute for Studies in Education, University of Toronto (OISE/UT), visited the University in early March. He taught a course on *Adult Education and the Community* to participants in the M.Ed. Adult Education specialisation. He also spoke on *The Porto Alegre Experience in Participatory Democracy* in the *Work in Progress Seminar Series*.

Dr. Laurent Romary from Nancy, France gave a series of lectures on *Language Resources and Standardisation* under the auspices of the Department of Computer Science and AI, Faculty of Science.

The *Theology Students' Association* organised the annual *Academic Evening in Honour of St. Thomas Aquinas* under the distinguished patronage of H.G. Mgr. Joseph Mercieca, Archbishop of Malta. This was held in the *Aula Magna*, Foundation for International Studies. Guest speaker was Professor Santiago Sia, Professor of Philosophy and Director of the Ethics Programme at Loyola Marymount University, Los Angeles USA who delivered a lecture on *Faith and Reason: a process view*.

The KSU once again organised its Charity Campaign which is an annual event on its calendar of activities. This year, the campaign was held in aid of the *Puttinu Cares - Children's Cancer Support Group* which is also supported by the *HSBC Cares for Children Fund*. The group works to raise money for the Oncology Ward at St. Luke's Hospital.

Dr Sandro Caruana, lecturer in the Department of Arts and Languages in Education, gave a public lecture under the auspices of the Italian Cultural Institute. *Biro e pitazz: 52 voci per l'italiano* dealt with the different roles of school and television in the promotion of the Italian language.



The Rector, Professor Roger Ellul-Micallef and Professor Alfred J. Vella, Dean, presented the *Science Dean's Awards* for excellence in the Natural Sciences and Mathematics. Fifteen awards were presented to students placing first, second and third in each of the four years of the B.Sc. (Honours) course during the academic year 2001/2002. The students on the Dean's List were:

Year I - Mary Rose Bonello and Andrew Duncan (Computer Science & Al and Maths): Matthew John Vella (Biology and Chemistry); Year II - Sarah Buttigieg (Maths & Statistics and Operations Research); Joel Azzopardi (Physics & Computer Science & Al); Pamela Cohen (Maths & Physics): Renato Camilleri and Jonathan Henwood (Biology and Chemistry); Year III - Pierre-Sandre Farrugia (Maths & Physics); Michael Caruana and Karen Caruana (Maths & Statistics and Operations Research); Year IV - Adrian Vella (Chemistry and Physics); Andrew Briffa, David Paul Suda and Silvan Zammit (Maths & Statistics and Operations Research). The Faculty of Science comprises seven departments including the traditional sciences as well as the newer disciplines in Information Technology. Research is carried out in several fields but particular areas of interest include marine biology, environmental chemistry, microwave applications, atmospheric physics, alternative energy devices, algebraic graph theory and combinatorics, systems analysis and design, multimedia authoring environments and stochastic processes.

The Department of French, Faculty of Arts welcomed Professor Gérard Gros of the *Université de Picardie, Jules Verne,* Amiens as visiting guest lecturer. He gave two lectures on French Medieval Drama entitled: *Le théâtre au Moyen Age* and *La Farce de Maître Pathelin.*

Dr Jeremy Black from the Oriental Institute, University of Oxford, delivered a series of lectures on Akkadian and Sumerian literature under the auspices of the Department of Arabic and Near Eastern Studies, Faculty of Arts.

Professor Dr. Ing. Sandor Vajna, Chair of Information Technology in Mechanical Engineering, Otto-von-Guericke University, Magdeburg, Germany, gave a public lecture on *Product Lifecycle Management* (PLM) under the auspices of the Department of Manufacturing Engineering, Faculty of Engineering which dealt

with the challenge of mass customisation. The lecture also gave an insight into the various aspects of PLM together with its associated benefits for the technical industry.

Ways in which firms can effectively compete in the current business climate was the focus of a public lecture entitled: *Winning Marketing Strategies*. organised by the Departments of Management and Marketing, Faculty of Economics, Management and Accountancy and delivered by Professor John Fahy from the University of Limerick, Ireland.

The Department of Statistics & Operations Research welcomed Dr. Jiri Dvorak and Dr. Jan Roupec from the Department of Automation and Computer Science, Faculty of Mechanical Engineering, Brno University of Technology. Dr Dvorak delivered a talk on Lot Sizing problems - Modeling and Solution Techniques while Dr. Roupec lectured on Advances in Genetic Algorithms.



Ms Emily Grech, Manager of Bank of Valletta on Campus, on behalf of the Bank presented a donation of Lm500 to the University's Department of History which will go towards the purchase of video recording equipment to further the study and development of Oral History, a project under the charge of Dr John Chircop. History undergraduates are constantly required to take recorded interviews in connection with both their coursework and their dissertation. Recorded

tapes are then deposited in the department's archive for use by other researchers.

The University of Malta Gozo Centre, in collaboration with the Ministry for Gozo again organised a series of lectures entitled: *Gozo Past and Present*. A one-day seminar was also held entitled: *Understanding Dyslexia and Maximising a Dyslexic Student's Potential* which sought to explore the nature of dyslexia as a Language Difficulty and give practical suggestions on how to help dyslexic children both at home and at school.

Final year Pharmacy students presented their projects at the annual Pharmacy Symposium which was held at the end of March and was entitled: *Tomorrow's pharmacist—a true practice-oriented professional*. The main emphasis was on pharmaceutical care as the standard of practice, putting patient care first and foremost. The Hon. Dr. Louis Deguara, Minister of Health, inaugurated the Symposium.

Fifteen Maltese students who obtained the B.Sc.(Honours) in Financial Services and Associateship attended the sixth annual graduation ceremony which was held at the London Guildhall. This is the result of a unique partnership between the University of Manchester Institute of Science and Technology (UMIST) and the Institute of Financial Services which offers a dual award of the degree from an internationally recognised university as well as associateship of the premier UK professional body for the financial services industry. IFS (Malta) together with the University of Malta is the only academic overseas centre recognised by UMIST to offer tuition leading to the B.Sc. degree.

Architecture students mounted *Designs 2003*, an exhibition of projects presented by final year students. The exhibition has become an annual event and is organised by the *Society of Architecture and Civil Engineering Students* (SACES).

April

Dr. Vince Hooper from the School of Banking and Finance, University of New South Wales, Australia, addressed a seminar in the *Work in Progress Seminar Series* on the theme: *The Pricing of Political Risk in Emerging Stock Markets*. He also gave a public lecture on A Tour of the World's Capital Markets and International Asset Pricing. He was visiting the Department of Banking and Finance, Faculty of Economics, Management and Accountancy.

Professor Rodney Turner, a director of PSO Projects, a UK based firm of Management Consultants and Director of the Project Management Programme at Henley College, conducted a course on Effective Project Management organised by Malta University Services Ltd. (MUS) in collaboration with the Department of Management which sought to impart an integrated approach to project management.

The Koperattiva Kulturali Universitarja (KKU) in collaboration with the University's Precincts Office and with the support of BoV Club organised a seminar entitled: The Art of Mime which consisted of practical workshops on mime techniques and introductory short lectures on creativity as an essential dynamism of the human spirit. This was conducted by Krysztof Najdowski as part of Art, Culture and Spirituality programme. Mr. Najdowski from Poland, runs an International Summer School of Theatrical Arts in Krakow and an Effective Communication Skills Course in England. He is also developing and directing theatre productions based on the concept of movement theatre. Both the training programmes and the theatre performances have been presented so far in twelve European countries, in the USA and Asia.

Professor Lars Hein from the Department of Mechanical Engineering, Technical University of Denmark, lectured *on Integrated Product* Development in Scandinavian Industries when he visited the Department of Mechanical Engineering.

Professor P. Fowler from the Department of Theoretical Chemistry, University of Exeter lectured on the Interaction of Linear Algebra and Graph Theory with Fullerene Chemistry at a seminar organised jointly by the Mathematics and Chemistry Departments.

Elgar-Paul Magro, a postgraduate student at the Sorbonne University gave a talk to the *Linguistics Circle* on *Some Intonational Features of Spontaneous Oral French and Maltese: first steps towards a comparison.*

The Collegium Musicum Choir, the resident choir of St. John's Co-Cathedral under the baton of Dr Mro Dion Buhagiar presented a concert of Music for Lent and Easter under the auspices of the Mediterranean Institute's Music Studies Programme. This was held at St. John's Co-Cathedral courtesy of the Metropolitan Cathedral Chapter. Sharon Gauci and Romina Morrow were the organists.

Dr John Fisher, Head of the Education Department of the Transport and General Workers' Union (TGWU) UK, was guest lecturer in the Faculty of Education where he taught the half unit on *Adult Education and Work*, that is offered as part of the coursework for the Master's in Education degree with specialization in Adult Education. Dr Fisher, whose visit was sponsored by the General Workers' Union, focussed on the area of workers' education with specific reference to trade union education.

This year the *History of Administration Working Group* of the *International Institute of Administrative Sciences* held its session in Malta. The research theme which the group set itself was that relating to the History of Water Management in a number of individual states and North Africa. Twelve leading academics from four continents presented their research. Professor Godfrey A Pirotta, Head of the

Department of Public Policy, and a longstanding member of the Working Group, presented his research findings on the Malta case.

The Department of Maths, Science and Technical Education in collaboration with the Malta Council for Science and Technology organized the Third Science Education Seminar at Villa Bighi, Kalkara. This was organized by Dr Deborah Chetcuti from the Faculty of Education and hosted by Mr Wilfred Kenely, Chief Executive, Malta Council for Science and Technology. Students from the Faculty of Education specializing in science subjects attended the seminar. Presentations were made by Mr Jesmond Xuereb from MCST who explained current research projects which the Council is involved in: Ms Doreen Mizzi, Chairperson of the Coordinated Science Focus Group who explained current developments regarding the introduction and implementation of coordinated science in schools and Dr Anna Rumin from Bishop's University, Canada who gave an interactive writing workshop during which students were encouraged to write and discuss the importance of writing both as a means of communicating information as well as a means for expressing thoughts and ideas in a poetic manner.

Professor Francesco Marroni from the University of Pescara met students of the Italian Department during a seminar *Incontro con l'autore* in which he discussed various themes developed in his novels, *Brughiere* and *Il silenzio dell'Escorial*. Professor Marroni also participated in a poetry/prose recital organised by the Departments of Italian and English in collaboration with the British Council at the Centre for Creative Arts, St. James Cavalier.

Professor Pasquino Crupi, Pro-Rector of the *Università per Stranieri*, Reggio Calabria and Professor Domenica Marra, School Director of Locri delivered a lecture on *Corrado Alvaro nel contesto della letteratura europea*.

Professor H.I. Gassmann from Dalhousie University, Halifax, Nova Scotia, Canada delivered two lectures entitled: Computing multivariate normal probabilities - some new results and Models and algorithms in stochastic programming when he visited the Department of Statistics & Operations Research.

The Department of Public Policy organised a public lecture by Dave Baldridge and Mario Garrett on the status of American Indians. The lecture entitled: The Other America - American Indians: The 550 Sovereign Nations in America traced and explored the history of this Nation-to-Nation relationship and the current status of American Indians as well as giving Demographic and health information. Dave Baldridge is a member of the Cherokee Nation and Executive Director of the National Indian Council on Aging in New Mexico. He also helps interpret Indian issues for U.S. Congressional sub-committees. Dr. Mario Garrett is Director of the Data Analysis Service, Albuquerque, New Mexico and Associate Professor, University of New Mexico.

Students from the Theatre Studies Programme gave a short performance of a play called *Yours Truly* as part of their studies. This was put on at the theatre of the Mediterranean Institute's Theatre Programme (MITP) in St. Christopher Street, Valletta.



The 33rd annual commemoration of *Earth Day* was celebrated at the University of Malta Library

with the launching of a poster exhibition on *Biodiversity: nature's vast diminishing abundance*. The posters which were loaned by the American Centre, drew attention to the fact that by the end of this century a quarter to half of the species still living on Earth could become extinct and that for the first time in the history of planet Earth, mass extinction is being precipitated by human action. The exhibition also highlighted the reasons why humans should care and what could be done to reverse this deterioration while at the same time illustrating the wealth of habitats such as rain forests, wetlands, coral reefs and oceans. The U.S. Embassy Public Affairs Officer, Dr. Erik Holm Olsen, inaugurated the poster exhibition.

May

The Department of Manufacturing Engineering organised a public lecture by Professor lan Barclay from Liverpool John Moores University. The aim of the lecture was to help raise awareness about the design and manufacture of environmentally-friendly products in Maltese industry while also focussing on Sustainable Development (SD) and Design for Environment (DfE) and how these two inter-related approaches may be used for business growth and development through the application of *green design* principles.

The Lace Making Programme based at the University's Gozo Centre organised the annual *Gozo Lace Day* for the seventh consecutive year. The event consisted of talks and a number of exhibitions and demonstrations of Maltese Lace. In her introduction, the Minister for Gozo, The Hon. Giovanna Debono, praised the initiative taken by the Lace Making Programme in organising this important event as well as conducting a number of courses on the subject. Other speeches were made by Professor Maurice Cauchi, member on the Gozo Centre Board, Ms Consiglia Azzopardi, Coordinator of the Lace Programme and Rev. J. Manicaro who delivered a talk on religious symbolism in Lace Making.

Professional Journalism & Politics: Cooperation and Boundaries was the subject of a talk delivered by Senator Paul Simon through collaboration between the Centre for Communication Technology (CCT) and the Embassy of the United States of America. Senator Simon is a former member of the US Senate and Director of the Public Policy Institute at Southern Illinois University, Carbondale.

The Department of Italian welcomed several visitors in May: Professor Remo Ceserani from the University of Bologna delivered a seminar on II sogno nelle opere di Italo Calvino; Professor Claudio Meldolesi also from DAMS, University of Bologna and Professor Laura Mariani from the University of Cassino lectured on La storia degli attori e delle attrici: metodi ed esemplificazioni while Professor Romano Luperini from the University of Siena delivered a lecture on La letteratura italiana ed europea tra '800 e '900. Finally, Professor Marie-Hélène Caspar from Paris X Nanterre gave a two-day seminar on Dino Buzzati: Vita ed Opere.

The Malta College of Family Doctors in collaboration with the University's Department of Family Medicine and the Department of Rheumatology, St Luke's Hospital organised its Spring 2003 Continuing Professional Development Meeting which focussed on Rheumatology. This was sponsored by Vivian Health Care, a Division of Vivian Corporation. The meeting was addressed by Professor Carmel Mallia, Dr. Bernard Coleiro, Dr. Paul Cassar Dr. Ray Sacco, Dr. Daniel Sammut and Dr. Franco Camilleri who lectured on various Rheumatic complaints and their treatment.

The Bioethics Consultative Committee in conjunction with the Malta Council for Science and Technology organised a conference on Ethics, Science & Society at Villa Bighi, Kalkara, with the participation of leading scientists in Malta. This consisted of talks, workshops and a panel discussion and had as its invited guest speaker,

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Professor Judith Sandor from the Central European University (CEU), Budapest, who spoke on Society and Genetic Information: Contemporary Challenges in Biomedical Law.

The Manoel Theatre, the University's International Institute of Baroque Studies and the Koperattiva Kulturali Universitarja (KKU) organised the Manoel Baroque Festival. This included concerts, drama and a seminar: Triumph over Death: a Baroque Celebration which dealt with Baroque death themes. Talks covered a variety of topics concerning the opulent and dramatic celebration of death in the Baroque period.



Professor Estela Pereira from the *Universidade de Aveiro*, Portugal and Professor Dr. Arne Van der Gen from the *Universiteit Leiden*, The Netherlands, two ECTS/DS Counsellors, visited Malta to monitor the University's implementation of the European Credit Transfer System and to discuss issues arising out of this exercise. The visiting counsellors held meetings with senior University officials as well as with academic representatives from the University's faculties and institutes and with the European Unit.



A *Get Together* was held for some 40 members of staff who had obtained their Doctorate in various disciplines from Universities overseas as well as from the University of Malta.

The University of Malta Library was presented with a collection of manuscript Commercial Court decisions (1907-1917) belonging to the late Judge Alfredo Parnis (1860-1925). Judge Parnis, who is still considered as an authority on Commercial Law, was a member of the Bench for the period 1907-1925 and one time professor of Commercial Law at this University. His beautifully bound 24-volume set of decisions which for many years had been in the custody of Judge Antoine Montanaro Gauci were presented to the University Library by Colonel Eric Parnis, a grandson of Judge Alfredo. The presentation ceremony also included a donation by Notary Dr. Paul Pisani of CD voice recordings of interviews carried out with his late father the Gozitan poet Gorg Pisani during television programmes. The Pisani recordings come as a valuable addition to the University Library's growing collection of voice recordings of Maltese men-of-letters which, through collaboration with the Ghagda tal-Malti (Università), has come to include recordings of Dun Karm, Aquilina, Saydon and others.

Students of the Mediterranean Institute's Music Studies Programme coached by Professor Mro. Michael Laus gave a Recital in the Music Room, St. James Cavalier, Valletta. The Recital is a requisite in part-fulfilment of the B.A.(Honours) in Music Studies.

The Department of Statistics and Operations Research and the Department of Mathematics, Faculty of Science, organised a lecture entitled: *An Alternative Digital Topology* which was delivered by Professor Josef Slapal from the Department of Mathematics, Brno University of Technology.

Professor Dr. Ing. Jan Vrbka, Rector, Brno University of Technology, delivered a lecture on his institution and its facilities and research programmes. He also spoke about the opportunities for student and staff exchanges with BUT.

Social Housing: A Comparative Perspective was the title of a public lecture by Professor Cyrus Vakili-Zad from the Centre for Health Promotion of the University of Toronto and organised by the Department of Public Policy. In his lecture Professor Vakili-Zad discussed the issue of social housing in North America, Europe and Malta. In addition to his academic post, he works closely with the Toronto Community Housing Corporation. Canada's largest social housing provider. He has published extensively on the subject in international journals and has been consultant to governments in the Middle East and Director of Community Services of the Boston Housing Authority.

As part of its continuing professional development programme, the Institute of Health Care in collaboration with University College Dublin (UCD), organised a 4-day Intensive Workshop for academic staff. This Teaching and Learning Workshop, which was attended by some of the academic members of staff of both the Institute of Health Care as well as of the Faculty of Medicine and Surgery, sought to support academic staff in their teaching and learning role within the University. Dr Tim McMahon, Teaching Development Officer at UCD, conducted the course.

June

Established in 1978, the Faculty of Education this year celebrated its 25th Anniversary. Several events were organised to mark the occasion. Fourth year B.Ed.(Honours) students from the Department of Primary Education presented four musicals and a theatrical collective creation. These performances provided student teachers with a unique experience related to their teaching career whilst treating primary school children to an extravaganza of children's theatre. Productions included: *Il-Ġgant I-Egoist, Viva I-Lotterija! The Secret Garden, The Pied Piper* and *L-Avventura fil-Foresta*. The students were in charge of all that



a performance involves such as adapting scripts. writing lyrics to the music of popular songs, creating props to be used and directing the play. In the collective creation which was based on a combination of fairy tales, the students were also responsible for writing an original script. Each performance was put up under the guidance of well-known children's theatre practitioners Carmel Aquilina, Mario Azzopardi and Josette Ciappara, Isabelle Gatt and Lorraine Vella. Ms Moira Azzopardi Barbieri helped out with the music.

Other activities held included a philanthropic activity in a senior citizen's home, a blood donation drive, the airing of a series of 17 radio programmes *Passi Edukattivi* on Campus FM, the launching of the Faculty's online refereed research journal, *Journal of Maltese Education Research* and a number of publications by Faculty members and two *M.Ed. Dissertation Showcase Seminars* at which postgraduate students presented their research. The Minister of Education, The Hon. Dr. Louis Galea, the University Rector, various representatives of the Maltese educational policy community and Faculty of Education staff attended these seminars.

The Department of Clinical Pharmacology and Therapeutics in conjunction with the Institute of Physical Education and Sport and the Medical Commission of the Games of the Small States of Europe, organised a public lecture by Professor Joe Cummiskey from the Olympic Council of Ireland and the International Olympic Committee (IOC) Medical Commission. He spoke on *Drug Doping and Sports*. He was in Malta as advisor to the Medical Commission of the GSSE which were held in Malta in the first week of June.

As the work of the Convention for Europe presided over by former French President, M. Valéry Giscard d'Estaing, drew to a close, a seminar entitled: *The Future of the European Union? an appraisal of the Convention for Europe* was organised by the Foundation for International Studies in conjunction with the Centre for European Policy Studies (CEPS), Belgium. This took a close look at the progress the Convention had registered as well as the structures and *modus operandi* that would be proposed for the Europe of tomorrow. Dr. Kirsty Hughes (CEPS) spoke on *Democracy within the Convention*. The seminar formed part of the EPIN-PRINCE project and was partially funded by the European Commission.

Ernst & Young in conjunction with the Malta Chamber of Commerce, the University's European Unit and the Malta Federation of Industry, organised a one-day conference on the challenges and opportunities that await Malta as it prepares itself for full accession to the European Union.

For the eleventh year running, the *Edward de Bono Seminar* was held at the University in the last week of June and was conducted by Lateral Thinker, Professor Edward de Bono himself. Some one hundred participants from eight different countries attended.

The Gozo Centre organised short courses in Sage

— the Accounting Package, Principles of Industrial
Hydraulics and Fire Engineering, Applied business
statistics for management, The challenges of
today's families and Power electronics and
electric drives as well as courses on Coping with
negative emotions and the Basis of Medicine.
Through covering various issues including cancer,
diabetes, heart disease, hereditary disease, AIDS,
cloning and DNA, the aim of this latter course was
to provide a basic understanding of the
fundamental aspects of modern medicine. A oneday seminar on Childhood and Adult Immunisation

– An Update was also held.

The Economics Department organized the final meeting of the Euro Module Dissemination Project. This is financed by the European Commission and there are eight participating universities from France, Italy, Spain, United Kingdom, Romania, Hungary, Latvia and Malta. The aim of the project is to draw up a course module of relevance to different countries including those already within the Economic and Monetary Union (EMU). EU member states which are still outside the Eurozone and applicant countries that will be joining EMU some time after accession.

During exam time, the University Counselling Services in collaboration with the Department of Social Policy and Social Work conducted a pilot project within the Faculty of Economics, Management and Accountancy (FEMA) designed to help students overcome exam stress and so function better during exams. Half-hour group relaxation sessions were held and it is hoped that similar sessions will be offered next year to students in other faculties.

Cartwheel: An art exhibition organised by Koperattiva Kulturali Universitarja (KKU) in collaboration with BoV Club & Kinnie was mounted in the Foyer of the Temi Zammit Hall.

A three-week Summer School introducing the Near East furnished participants with an overview of various cultural aspects – such as archaeology, history, religion and literature - of Semitic and other Near Eastern societies. The language lectures provided a good introduction to the structure of the major Semitic languages used in the region while the civilisations of Ancient Mesopotamia, Egypt, Syria-Palestine and the Phoenicians demonstrated how major feats in the history of civilisation originated in the Near East.

The Department of Statistics & Operations Research, Faculty of Science, held a seminar during which final year students presented research contained in their dissertations.

Visiting External Examiners from overseas universities were in Malta to examine in various disciplines. The University of Malta has had this system in place for over forty years as part of its quality audit structure.

Final year B.Sc.I.T.(Honours) students mounted the annual IT exhibition of projects which they present as a requisite for the degree. The Hon. Dr Austin Gatt, Minister for Information Technology and Investment, opened the exhibition.



Professor S. Standring, Professor of Experimental Neurobiology, GKT School of Medicine, presented the annual *Anatomy Projects Awards* to medical and dental students of the II year Intermediate course. Prizes were awarded to Samuel Aquilina, Kevin Borg and Charlene Farrugia for a project on *The lumbar plexus* and to Alison Fava and Kristian Micallef who submitted a project entitled: *Deep dissection of the palmar aspect of the hand and wrist and The radiological appearance of the hand and wrist with age.* Professor Standring was in Malta as visiting External Examiner.

HE the Ambassador of the Russian Federation, Mr. Valentin S. Vlasov presented the University Library with a set of works by the Russian writer Maxim Gorky, pen name of Aleksey Maximovich Peshkov (1868-1936). The presentation comes as a valuable addition to the Library's growing collection of Russian studies texts.

An International Summer School in Heat Treatment and Surface Engineering was organised for local technicians by the Department of Metallurgy and Materials Engineering which is one of the partners in a Pilot Project aimed to prototype an integrated modular system of self-instruction and teaching in the multidisciplinary and industrially critical field of surface engineering. An important feature of the project is the emphasis on providing access to learning at the undergraduate, postgraduate and technological / technician level. Europe-wide accreditation and certification of material and programme. The project has as partners various universities, SMEs, multinationals and institutions such as the Institute of Materials, Mining and Minerals and the International Federation of Heat Treatment and Surface Engineering.

In the introductory stage of the project and as part of the department's commitment to support industry, a group of twenty technicians from ST Microelectronics were given 40 hours of lectures as a background on Materials and more specifically heat treatment and surface engineering. This was followed by a five day full time summer school hosted by the Department of Metallurgy and Materials. Speakers of international repute were invited to give lectures on the various processes. Emphasis was made on how surface engineering could reduce tooling cost and improve productivity and quality of the final product. Lectures were supplemented by practical sessions held in the department's state of the art workshops.

July

Final year B.Eng. (Honours) students mounted the annual engineering projects exhibition which they present as a pre-requisite for the conferment of the degree. HE Professor Guido de Marco, President of Malta, inaugurated the exhibition.

The European Society of Clinical Pharmacy in collaboration with the Department of Pharmacy held the 3rd Course in Clinical Pharmacy for clinical pharmacists and clinical teachers which focussed

on patient-centred teaching. The aim of the course was to provide participants with an opportunity to develop patient-centred teaching and/or practice skills in a clinical environment through feedback from experienced tutors and clinical practitioners. Over thirty participants from some seven countries attended the course which had an international teaching faculty.

Ruin or Restore? was the title of a seminar on conservation problems which discussed different approaches to conservation and conservation education. The evening seminar was organised by the Institute for Conservation and Restoration Studies at the Malta Centre for Restoration whose degree courses are regulated by the University of Malta.

The Cleaner Technology Centre in conjunction with the Malta Environment and Planning Authority organised a seminar entitled: Surviving Ozone Depleting Substance Phase Out. Participants were explained the implications of Directive EC 2037/2000 and how it affects users of Ozone Depleting Substances (ODSs).

The opening of a Cartoon Exhibition by the Hon. Jesmond Mugliett, Minister for Youth and the Arts, launched the eleventh edition of *Evenings on Campus* which is organised by the *Koperattiva Kulturali Universitarja* and the University's Precincts Office. The annual festival also included a film garden as well as musical performances and a literary evening.

During the long summer holidays, the *University* Summer School again provided an interesting and varied Kids on Campus Programme between mid-July and early September for children aged three to ten.

August

The Hon. Giovanna Debono, Minister for Gozo, presented certificates to over 170 participants who had followed various courses at the University Gozo Centre between December 2002

and July 2003. This month, the Centre also organised its annual summer activity which took place in the Central Courtyard. This was entitled: *An Evening with Four Eurovision Singers* and included the participation of Lynn Chircop, Ira Losco, Miriam Christine and Claudette Pace.

The Association for Teachers Education in Europe (ATEE) held its 28th international conference at the University of Malta. The conference which was opened by the Hon. Dr. Louis Galea, Minister for Education, discussed the theme Becoming teachers in a learning organisation — meeting the challenges of the learning society. Some 300 experts in the field of teacher training from 55 different countries mainly in Europe, attended.

September

Between the end of August and mid-September, a dental team made up of members of staff and students from the Faculty of Dental Surgery together with general dental practitioners made *Smile for Albania*'s ninth visit to Korce since 1994. The society provides humanitarian dental care to school children in Korce, Albania.

Analyzing Microarray Data: An opportunity for fruitful collaboration between Biology, Cognitive Psychology, Computer Science, Statistics and Computational Linguistics was the title of a seminar conducted by George S. Davidson from the Computation, Computers, Information & Mathematics Department, Sandia National Laboratories, Albuquerque, New Mexico, USA. He looked at the ways in which new technologies have created a problem-solving environment and facilitated the analysis of data. In particular, he examined the Genome Literature Exploration Environment (GLEE), which was built in collaboration with Natural Language Processing (NLP) researchers at New Mexico State University.

The Department of Economics and the Islands and Small States Institute organised a training workshop on *Competitiveness Strategies for Small*

States sponsored by the Commonwealth Fund for Technical Cooperation of the Commonwealth Secretariat and the Malta Cooperation Programme of the Ministry of Foreign Affairs.

Thirty adult educators from different parts of the Mediterranean attended the second in the series of meetings on lifelong learning in the Mediterranean organized by the Institute for International Cooperation (IIZ) of the German Adult Education Association (DVV) with support from the University of Malta's Faculty of Education. Countries represented included Albania, Algeria, Bosnia-Herzegovina, Cyprus, Egypt, Greece, Israel, Italy, Jordan, Malta, Morocco, Palestine, Serbia, Spain, Syria, Tunisia and Turkey. The conference focussed on three main themes: notably those of motivation in adult learning with respect to the Mediterranean: adult education and multiethnicity and North-South/South-North relations in adult education.

The new academic year started for the student body with over 3000 students who had registered for undergraduate and postgraduate courses in various disciplines also embarking on or continuing their university careers. The new intake brought the total student population to just under 10,000. The pre-tertiary Junior College also registered a substantial intake this year.

October

The Languages Departments of the Faculty of Arts and the Institute of Linguistics launched a 2 year part-time Postgraduate Diploma course in Translation and Interpreting. The need for such specialisation is fast emerging not only in Malta but also in the EU countries. Mr Joris Goetschalckx, Head of the Translation Field Office of the European Commission was present for the occasion. Over 80 students applied and qualified for the course.

Gordon Mair from the Department of Design, Manufacturing and Engineering Management, University of Strathclyde gave a lecture entitled: *Towards Transparent Telepresence.*

Professor Jerker Blomqvist, Professor of Greek Language and Literature at Lund University gave a series of lectures related to his field of specialisation when he visited the Department of Classics and Archaeology.

The Mediterranean Sea: How it works and lives was the subject of a one-day seminar organised by the University of Malta Gozo Centre.

Dr Frauke Zipp from the Institute of Neuroimmunology, Neuroscience Research Centre, Charité University, Berlin, Germany, visited the Department of Clinical Pharmacology & Therapeutics. During her stay she lectured on New aspects in pathology and therapy of Multiple Sclerosis.

The first *Philosophy Society Meeting* of the new academic year was addressed by Professor Alfred Cuschieri, a geneticist, who spoke on *Cloning and the evolution of asexual propagation*. Professor Emmanuel Agius, an ethicist, opened the discussion.

Professor Godfrey Wettinger gave the eleventh in the series of public lectures established by the late Professor Joseph Galea. His talk was entitled: Kliem Malti qadim u t-tifsir tieghu mill-Arkivji ta' Malta u Sqallija fiż-żmien Nofsani.

Dr Penelope Harnett, Senior Principal Lecturer, University of West England, Bristol, gave the second annual *Michael A. Sant Memorial Lecture* under the auspices of the Faculty of Education. She spoke on *Issues in History Education: Curriculum Planning and Developing Children's Historical Understanding.*

The Faculty of Economics, Management & Accountancy organised a public lecture by Dr Mario Vella under the distinguished patronage of the Ambassador of the United States of America, H.E. Anthony H. Gioia. Dr Vella spoke on *Walt*

Whitman Rostow (1916-2003): beyond the 'stages of development' debate.

The Foundation for Human Resources Development, the Malta Employers' Association and the University's Workers' Participation Development Centre with the support of the Friedrich Ebert Foundation organized a breakfast seminar on Persons with Disability in the Workplace.

The Valletta Rehabilitation Project, the University of Malta, Heritage Malta and other partners sponsored an international seminar on the brilliant Maltese sculptor Melchiorre Cafà (Gafa) (1636-1667). The most renowned international scholars on Italian Baroque Sculpture participated in the seminar: Melchiorre Cafà: Maltese Genius of the Roman Baroque which was convened by Dr Keith Sciberras from the University's Art Programme.

H.E. the Ambassador of the Russian Federation, Mr. Valentin S. Vlasov presented the University Library with back numbers of the prestigious journal Science in Russia published by the Russian Academy of Sciences.



The November meeting of the Malta Mathematical Society featured an entertaining mathematical magic show by well known conjurer Karl Spiteri who combined mathematical principles with magic, to shed some light on the various conjuring tricks performed.

The Institute of Health Care in collaboration with the Health Division, organised a one-day symposium entitled Working Together to Attain Excellence in the Health Care Professions. The quest speakers were Dr Carol Borrill from Aston University and Professor Clive Mulholland from the University of Ulster. IHC graduates presented their research findings which are of relevance to the Maltese health sector.

Caretranslate, an international network among service providers and universities in ten countries of Europe, the Middle East and North Africa, of which the University's Department of Social Policy and Social Work is one of its two coordinators in Malta, together with the Mental Health Commission, Richmond Foundation and Sedga organised a seminar entitled: Working together for early intervention in psychosis which sought to show how better understanding and support from the community can soften the impact of a first encounter with psychosis.

Professor Dr Mathijs Lamberigts, Dean, Faculty of Theology, Catholic University of Leuven, was in Malta as visiting guest lecturer for the 7th Annual Saint Augustine Lecture Series organised by the Faculty of Theology, the Maltese Augustinian Province and the Foundation for Theological Studies. His theme was St Augustine of Hippo: Preaching Conversion in daily life. He also addressed The Philosophy Society.

Students and staff from the Department of Mathematics, Faculty of Science, presented ideas from various fields of mathematics at the Collection VIII workshop.

The Geography Programme welcomed Dr Derek R. Hall, Professor of Regional Development, SAC, Auchincruive, Scotland, UK who was visiting lecturer in Geography during November. He lectured on rural change, leisure and tourism while Dr. Klaus Frantz from the University of Innsbruck gave a lecture entitled: The Privatisation of the City: Gated Communities.

Mohamed Sid-Ahmed, veteran Egyptian commentator for Al-Ahram and Le Monde Diplomatique on the Arab-Israeli conflict, lectured on the Media and the Arab World under the auspices of the Anthropology Programme.

For the third year running, the University's Campus FM was the radio station that won the largest number of Broadcasting Authority Awards for the

best programmes broadcast over the previous year. *Campus FM* which broadcasts on the frequency 103.7 FM again won the educational category with its *Banking in the EU* series presented by John Consiglio. *Sportsfile* produced by Celaine Buhagiar and Daphne Cassar received special mention for its excellence and high standard which no other programme in this section was considered to attain. For the second consecutive year, the Station also won the prize for Gender Awareness and was praised for the manner in which it promotes equality not only through the programmes broadcast but also by its internal policies.

The University's *European Unit* organised a oneday seminar which discussed the role of Education and Training in the harmonisation of an enlarged Europe.



Chinese students on campus organised *China Days*. This included the screening of the film *In the Mood for Love* directed by Wong Karwai and a display of Chinese culture comprising acupuncture demonstrations, a fashion show, talks about travelling in China as well as singing and instrumental pieces played on traditional Chinese instruments.

On the occasion of Graduation 2003 a Mass of Thanksgiving was held at St. John's Co-Cathedral celebrated by H.G. The Metropolitan Archbishop of Malta. Over 2000 students graduated in various disciplines in the course of a number of ceremonies.

The Faculty of Laws' Masters in Human Rights and Democratisation Programme organised an international conference on *Human Rights and the Treatment of Asylum Seekers* at the *Aula Magna* of the Foundation for International Studies. The University has been entrusted to coordinate this course by the European Commission as part of a network in conjunction with universities and Human Rights Institutes from around the Mediterranean Basin as well as in Sweden, Denmark, The Netherlands, Belgium, Ireland and Australia.

The Devious Tranquillity of the Text - Other Perspectives on Maltese Literature was the title of a public seminar on literature organised by the Department of Maltese, Junior College with the participation of Sinead Morrissey, the Northern Irish poet. Her participation was made possible by the British Council and Inizjamed in collaboration with St. James Cavalier Centre for Creativity. She discussed the theme Why Teach Literature. Dr. Ġorġ Mifsud-Chircop, Mr. Immanuel Mifsud, Mr. Mario Cassar, Dr. Marco Galea and Dr. Adrian Grima also addressed the seminar.

December

The Fifth Maltese Medical School Conference was held at the Intercontinental Hotel, St Julian's organised by the Continuing Medical Education Committee of the Faculty of Medicine and Surgery. Invited guest speakers from overseas gave keynote addresses while local participants discussed their research findings. Recent advances in most disciplines and original and scientific contributions in both basic science and clinical research were presented, the conference themes having been set deliberately broad so as to attract multiple interests, ranging from internal medicine and the major disciplines, to maintaining quality of care. An exhibition of pharmaceuticals and medically related items was also mounted.

To coincide with the conference, MCQs in Pharmacy - Practice edited by Dr Lilian M. Azzopardi and published by The Pharmaceutical Press was

launched by the Rector and the Minister of Health, The Hon. Dr. Louis Deguara, in the presence of Dr Gillian Hawksworth, President of the Royal Pharmaceutical Society of Great Britain.

Professor Carol Black, President of The Royal College of Physicians, London delivered *The Ralph Arrigo Lecture*. She spoke on *The impact of the European Union on British Medicine*.

Dr Theresa Vann, Visiting Guest Lecturer of the Library and Information Studies Programme, gave an introductory course on Archival Research in Malta. Dr Vann is Curator of the Malta Study Center, Hill Monastic Manuscript Library, St John's University, Collegeville Minnesota, USA.

The Malta Council for Science & Technology (MCST) in collaboration with the University's European Unit organised an Information meeting with the theme: Opportunities for Research & Training with the European Commission's Joint Research Centre. This aimed at briefing the local scientific and technical communities on the role of the JRC in supporting the development and implementation of community policy in areas of JRC competence.

The Theology Students' Association (TSA) organised its annual Charity Fund Raising Campaign on Campus to raise funds for a Preventive Care programme to help families that are in a poor financial situation to raise their children.

The Hon. Mr George Pullicino, Minister for Rural Affairs and The Environment, opened the *Annual Biology Symposium* which was organized by the Department of Biology in collaboration with the Environment Protection Directorate of the Malta Environment and Planning Authority.

The *University Vocal Ensemble* and the *Collegium Musicum* under the direction of Dr Mro Dion Buhagiar, held their annual Christmas Concert in St. John's Co-Cathedral.

The MKSU (University Students Catholic Movement) hosted an Organ Donation and Blood Marathon campaign in collaboration with the University Chaplaincy and the Malta Medical Students Association.

The second part of the M.Ed. Dissertation Showcase was held as part of the activities marking the Faculty of Education's 25th Anniversary. A selection of M.Ed. graduates who submitted their M.Ed. thesis since 2000 gave presentations.

On the 55th Anniversary of the *Universal Declaration of Human Rights*, the Mediterranean Masters in Human Rights and Democratisation Programme organised a public awareness campaign on campus and a public seminar at which selected articles were presented. The seminar which was chaired by The Hon. Mr. Justice Tonio Mallia and Professor lan Refalo, Dean of the Faculty of Laws, laid particular emphasis on Article 5 – *Prohibition from Torture*.

The Cassar Pullicino family presented the University Library with a portrait in oils of former Librarian and folklore scholar Ġużè Cassar Pullicino. The presentation took place during an evening in honour of Mr. Cassar Pullicino which included folk music, readings from his works, the launching of a new edition of the author's Haġa moħġaġa u taħbil il-moħħ ieħor and the opening of an exhibition covering his career. The ceremony, was organized in conjunction with the Għaqda tal-Malti (Università).

The Ambassador of the United States of America, H.E. Mr. Anthony Gioia, presented the University Library with a second instalment of the prestigious *Library of America* series, covering the best in American literature, politics, history, and journalism, from George Washington to the Vietnam War. The University Library has been one of a 100 institutions nominated for this award by American embassies worldwide.



An opportunity for excellence: Moving into the World of on-line course delivery

Dr. Mark W. Smith

SO, YOU WOULD LIKE a first class education at an outstanding university with world-renowned faculty. English is the language used for teaching, classes are dynamic and technology is up-to-date. The University of Malta is an obvious choice except that you are living somewhere in Europe, Africa, or Asia, or perhaps you are a non-traditional student who must work full-time and who finds it difficult to attend structured, scheduled classes. How is this dilemma resolved?

As I found during my six month tenure as a visiting Fulbright Senior Scholar, teaching in the Computer Information Systems Department at the University of Malta, a great educational experience can be obtained provided you want to move to and live in, Malta. Of course, living in Malta itself is a wonderful experience. I truly found Malta to be the jewel of the Mediterranean. Its history, cultural diversity and a very warm embrace by the Maltese people await you when you come to Malta. However, not everyone can move to Malta just to attend university.

Enveloping a New Paradigm

Malta is a crossroads of cultures, politics and geography, so why not establish Malta as a crossroads for education. Contact with its European counterparts will provide challenges for the University of Malta now that it has joined the European Union (E.U.). The University will be challenged to expand its role not only at home in Malta but also in Europe. Vast new educational opportunities will be available for Maltese students. Many may consider other institutions or universities. How will Malta keep potential students from Malta and attract students from other areas of the world? The University of Malta has an opportunity to assume a leadership role in higher education by using its position, especially as a new member of the E.U., to lever itself into a regional center for distance learning. By this, it is meant that education from the University of Malta would spread out and become available to students even though they may not physically call Malta home! How can this be done? Enter the Internet-based and technology-driven opportunities of distance learning delivered across the Internet – Online Courses!

The online, distance learning paradigm is not new. The United Kingdom's Open University has been an established provider of distance education for many years. The University of Hull and Oxford University, which have established the Office of Distance and Online Learning, are involved in the newer paradigm of distance learning through online course delivery. Many colleges and universities in the United States have adopted online course delivery including Harvard.

There are companies providing the necessary software infrastructure to support online course delivery. For instance, WebCT, currently one of the world's leading providers of online learning solutions, provides a course management and development environment, training and support to major universities throughout the world. A visit to their website, www.webct.com, can provide one with the amazing possibilities available in an online educational environment.

If a person doesn't think this new course format is gaining popularity, one only need look at the U.S. government's National Center on Education Statistics, where we find that approximately 3.1 million persons have been enrolled in distance education as of 2001. IDC, a research firm, estimates the corporate e-learning market will grow from US\$6.6bn in 2002 to US\$23.7bn in 2006! Thus, the new online paradigm appears to be embraced wholeheartedly by many in the corporate as well as educational world.

Including online course delivery could allow flexibility, utilize Malta's initiative in Information Technology and build on its University's excellent reputation. The online course paradigm makes this possible without the need for larger classrooms or in many cases more professors. Malta's ability to adapt and change has always been one of its strengths. Why not apply this concept to its Higher Education? Something to keep in mind is that many other colleges and universities throughout the world are embracing this new delivery technique. Malta University may not be the only university in town, so to speak, as other universities begin to offer their degrees and coursework over the Internet.

Another reason for considering online delivery of courses is the change in what has been considered the "traditional" student. Many universities are experiencing a rise in the "non-traditional" student, a student who is perhaps older than the traditional 18-22 year old student. This student may be working full-time and even have a family. What options are available? Many of these students have embraced technology and look at it as a means to attend school and successfully earn a degree. If it's not the University of Malta, then who will fill this void?

From my experience during the time I was at the University, I firmly believe that embracing a new paradigm in course delivery could move the University of Malta to the forefront of higher education not only in the E.U. but also throughout the African and Asian geographic regions.

The Obstacles

Of course, there are problems when embracing this new paradigm: equipment/technology may not be available, initial costs for the technology can be expensive, how will faculty incorporate the technology into their discipline and the pedagogy involved, faculty training is a major issue and technical support for both the faculty and student are among the challenges to be overcome. The training of the student to use the technology from the home or office is probably the easiest obstacle to overcome as most students already possess technology skills. Providing the necessary infrastructure is a matter of priority and money for the University. To become a leader in this area requires the University to dedicate itself to the concept and follow up that dedication with money to establish the infrastructure both from a hardware and software perspective as well as establishing partnerships with government and industry. Another major deterrent to online delivery of courses has proven to be the faculty member! Why change one's proven methods of classroom delivery? Why mess with success? This can be answered quite easily by realizing that if one does not change one becomes stagnant and in many ways obsolete regardless of the discipline. Other faculty and universities will be more than happy to fill the void!

To develop and achieve success in the area of online education will require the full commitment of the University's administration. This may come in the form of money, but also in other forms such as training, providing release time for course development and a commitment to online course delivery

as a credible means of teaching which will figure positively in the promotion and tenure process. One cannot simply throw money at online course delivery. It requires study, hard work and imagination. From my experience, typically a good traditional, in-the-classroom professor will also be a good online professor. The same dedication and knowledge this professor would put into his or her traditional course will be brought to the online course. The professor will require help, but the enthusiasm for one's subject will jump out across the Internet as surely as it jumps out in the classroom. Being a leader requires taking some risks!

On the practical level there are other disadvantages to the online paradigm. Poor communication due to unclear objectives, lack of and untimely feedback and a certain amount of technophobia, can impede a student's ability to grasp the content presented (as happens even in the traditional classroom environment). Traditional interaction between instructor and student and student to student, may also appear to be missing. Certainly, lack of self-motivation and self-discipline can cause a student to have the same problems one finds with students who do not attend an in-class course on a regular basis. However, one must take a close look at communication in the online environment. Student interaction with other students and with the professor can be accomplished online through the use of chat rooms, interactive video and audio. Asynchronous communication using email often provides the motivated student with the necessary feed back and encouragement that makes the course personal, collaborative and meaningful. In some instances interpersonal and social interaction are key ingredients to the course and may require actual physical meetings to accomplish certain goals required by the professor and course objectives. Obviously, not all courses should or would be converted to an online format.

The Rewards

On the positive side, there are many advantages to the new online paradigm. Communication can actually be improved in that it can take both a synchronous and asynchronous format. Even the synchronous chat session can be recorded for later review by the student. Adding video and sound to the online course has become a reality with the improved bandwidth now available. Instead of just "telling" the student through a series of slides and words, the instructor can now "show" the student while talking the student through the process. Online courses can be just as motivating as any course. A professor's technique will come through with an online course just as it would in the inclass traditional course. Expect a lot from your students and you'll get a lot from them, doesn't change because the delivery method has changed.

Another advantage which administrators tend to appreciate is that the new paradigm is cost effective! While the cost is initially high for entering into online course delivery and maintenance is also substantial, the scales of economy apply here. Increased enrollments are common and the ability to attract students from outside the institution's traditional student pool will not only increase its enrollment but also, perhaps even more importantly, its diversity as well as spreading the good name of the university. Keep in mind that once developed, an online course can often be delivered to 10 or 100 students without making any changes. Of course, faculty load still plays a key roll in class size whether the course is traditional or online.

Of course, two prime advantages to distance learning for most students are the convenience and the scheduling alternative presented. A student's scheduling conflicts and perhaps pace or rate of interaction

with the course can be accommodated. Today's busy professional, who may be travelling often, will find online course delivery a welcome alternative to the typical structured evening graduate course which is often missed due to business scheduling conflicts. The undergraduate student will often find that he or she can take other in-class courses which are now not in a scheduling conflict.

A Final Note

My goal in writing this piece was not to convert everyone to the new online paradigm, but to point out that an opportunity exists and that what one does with the opportunity often makes the difference between success and failure, growth and stagnation. The online paradigm is not the answer to all academic problems. I have not tried to provide a definitive study on online course presentation. I am posing the question, "who will be the new leader of quality education in the crossroads of the Mediterranean?" The University of Malta is already a leader and an obvious choice for continued leadership and growth. Embracing a new paradigm could mean the difference between being superlative and simply being just another university.

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ICT in Malta - The next ten years

Dr. John Abela

A RELATIVE WHOM I recently met at a wedding reception told me that her son wanted to take ICT at the University. She told me that she was worried that the ICT industry was becoming saturated with graduates and she expressed concern that her son might not find a good job. My reply was that she should definitely encourage her son to read ICT at the University and that she need not worry about his job prospects. I explained that her fears were unfounded and that the ICT industry in Malta has a bright and prosperous future.

Malta, like many other semi-developed countries, needs to reindustrialize and modernize its economy. For too long we have depended on low-cost manufacturing of goods such as textiles. These industries employ a lot of people but depend on low wages in order to be competitive. If our standard of living is to improve substantially, we have to move to goods and services that have much higher added value. Taking the lead of the United Kingdom, we must make the move to service-based industries such as financial services and ICT services such as software development, data warehousing, etc. There are some encouraging signs in this regard. A number of foreign, mostly British and German, companies have successfully set up software development houses in Malta and this trend is set to continue now that Malta is a member of the European Union. I have always believed that Malta can become the 'Silicon Valley' of Europe if the right planning, investment and commitment are made in the nation's ICT Industry. Malta has many benefits for the foreign investor: the climate, geographic position, air links to all major European cities, a well-educated and English-speaking workforce and good telecommunications infrastructure. With due improvement to Internet infrastructure, Malta will be an ideal place for software companies to base their development houses. I also strongly believe that we should invest money in setting up European centers of excellence in areas such as ICT security, natural language processing, machine translation and perhaps even bioinformatics. Almost exactly four years ago, the EU leaders declared that they want to make the European Union the most dynamic, knowledge-based economy in the world by the year 2010. Malta actually has a head-start over other European countries in this regard. A recent WEF report ranked Malta higher than some major European countries in areas such as financial services and the information society. However we got poor marks for innovation, research and development. Obtaining funds for research and development has always been very problematic. Malta should succeed because of, rather than in spite of, its small size. The Maltese people are dynamic, hard-working and very adaptable. We should not lose such an opportunity to excel in the new united Europe. With wise investment and planning the ICT industry will expand and will easily provide well-paid employment for all the ICT graduates from the University of Malta for years to come. One must point out, however, that if the local ICT industry does not expand and develop, the small local market will eventually become saturated. This will mean our ICT graduates will have no choice but to turn to the EU for employment.

ICT is changing very rapidly - technologies constantly evolve and new ones emerge all the time. In the next ten years we are going to see the introduction and adoption of a number of new and exciting technologies. TCP/IP Version 6 (IPv6), for example, will eliminate the need to configure a PC manually for network access. It will allow for fast and efficient routing and for session maintenance when roaming, enabling a PC or laptop to be moved around from one building to another whilst the network

session is automatically maintained. Retailing will also be revolutionized. RFIDs (Radio Frequency IDs) will replace barcodes on products. The RFID will take the form of a tiny chip embedded in the label of all products. The RFID will emit a signal that is captured by special sensors on point-of-sale systems. The signal will contain all information about the product such as description, price, date of manufacture, expiry dates, etc. Appliances such as fridges and freezers will become RFID compliant and will inform the user when a food item is due to expire. The PC as we know it will change drastically. By 2010 we expect PCs to run at 15-20 GHz and have terabytes of memory and hard disk space. New operating systems, such as Microsoft's Longhorn, will provide users will new, intuitive, interfaces that help users organize and search such vast memory stores. The world of the future is a connected world. All devices and appliances will talk to each other. We will be able to control the TV with our mobile phone, start the microwave at home from our work place, again using our mobile phone and order cinema tickets and make restaurant booking directly from our mobile phone or PDA.

All of these novelties present exciting challenges to our present and future ICT graduates. Malta must have a dynamic and healthy ICT industry that is capable of taking the opportunities available in the EU and international markets. If the ICT industry is to survive, local ICT companies cannot just aim their products and services at the small and restricted local market. Our ICT industry must be able to compete and excel, in the huge, completely liberalized EU market.

The Department of Computer Science and A.I., to which I belong, is aware of the challenges and opportunities that lie ahead. We are all looking forward to a very exciting decade ahead. In order to meet these challenges and exploit these opportunities, we constantly change the courses we teach and offer new ones in order to ensure that our students are exposed to the latest concepts and technologies. One must emphasize however, that we are very much aware of our position and obligations, as a department in an academic institution. Some in industry have sometimes criticized the University of Malta for not teaching a course in a particular programming language or some other specific technology in our ICT degree programs. We must never forget that the University of Malta is a university and not a polytechnic or technical institute. Our main focus is to teach the theory and concepts of each area in ICT and not to concentrate on a particular technology. These so-called 'vocational' courses are best left to technical institutes. We maintain that once a student is exposed to the theory and concepts of a particular area, s/he should have no problem in becoming familiar with the different technologies that implement those concepts. We only have one university in Malta. In the UK, for instance, some universities concentrate mainly on theory and research while other, mostly expolytechnics, offer 'vocational', industry-oriented, degrees. We do not have such luxury. In our ICT degree programs we have to cater not only for students who want careers in industry but also for students who want to do postgraduate studies and research. We realize that, in order to produce 'marketable' graduates we must ensure that our graduates are not only well versed in theory and concepts but also have certain industry-oriented skills. In this regard we have initiated two programs that allow students to obtain industry certifications from Microsoft and Cisco. The courses are held in the evening and lead to sought-after, industry-recognized, certifications. This will ensure that our graduates will, as it were, have the best of both worlds – a good ICT degree and a recognized industry certification.

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CRISIS AND THE SOCIAL DESIRE FOR HISTORY

Crisis and the social desire for history



Dr. John Chircop

GLOBAL RESTRUCTURING of the market economies has been accompanied by the present crisis in the social welfare system and the exhaustion of the traditional managing role the state occupied in Western Europe. The wide political consent which had been created in European politics, in support of what was taken to be the state's principal responsibility to direct a heavily institutionalised welfare system, is now severely weakened and apparently unsustainable. As a consequence, rapid and erratic changes in society are amplifying unemployment, intensifying varying types of poverty and family instability, leading to the breakdown of customary forms of social solidarity and diffusing a sense of individualist disorientation and anomie. Correspondingly, attempts to legitimise this disintegration of the state's social assistance system in mainstream cultural discourse has largely, though not exclusively, been represented by endist postmodernist arguments, mainly by the end-of-history thesis (Fukuyama, 1992). Initially, this seemed capable of damaging history as an academic discipline crucial to the cultural discourse of modernity, before it received an exhaustive critique as exemplified by Jacques Derrida's scathing deconstruction of Fukuyama's claim, that 'the triumph of market liberalism' has brought an 'end of history', as a pure ideological hoax (Derrida, 1993). Nonetheless, notions from endist thought are still hovering within the main flows of communication, fashioning an ambiguous language that portrays the idea of history as totally insignificant to the contemporary mode of existence. Prima facie it seems that the individual has been cleansed from a sense of history.

However, from the wide-angled perspective of the people who, in practical terms, are bearing the brunt of the economic restructuring underway, the *endist* 'free from history' argument serves only to camouflage the abundant gender, age, social class and geographical inequalities shaping our social landscape. This sense of fatalism which *endist* thought presents as the essential attribute of present day existence as confirmed, it supposes, by the compliance shown by the 'silent multitude', is a total misrepresentation of reality. Mute resignation, endemic quiescence and passivity cannot be attributed as essential characteristics of the ordinary working people, most of whom are in a continuous struggle to make ends meet, not least during periodical crises. In this vibrant everyday reality, constant reference to, and re-creation of, the past by the individual in the family and in the community at large, is essential both for the consolidation of a sense of shared identity and for daily survival. 'Looking back to the past' is an impulsive social attitude. People repetitively recollect and use their vast historical memory to tackle specific problems, reduce risk and be able to cope with everyday troubles, not least during times of impending crises. As David Lowenthal asserted, earlier on in 1985, in his 'defence of history': "The past is not dead ... it is not even sleeping. A mass of memories and records, of relics and replicas…lives at the core of our being" (Lowenthal, 1985: 7).

It is this organic intimacy with one's personal and public past that provides a strong sense of temporality and social identity, as well as the stimulus and daily courage needed for survival through recurring predicaments. Hence, the current disintegration of the state social welfare system as we know it brings to the fore this view of the past as a depository of knowledge and experiences through which, to put it in a clear but presently unfashionable way, *lessons are constantly being learnt*. For the community at large, as John Berger puts it, the past is "not for living in [but] a well of inclusions from which we draw in order to act" (Berger, 1972: 24). This is nowhere more evident than during a general

social crisis, when the people's incessant allusions to and remaking of their own personal, family and community histories, intensifies on a shared level, to enable the rethinking, refining, renegotiating and the collective acting out of strategies adapted to deal with common problems.

For the historian, similarly to the rest of the community, social crisis is a time of suspense, irregular changes and intensified social difficulties. For the more critical, it is equally an occasion for an indepth rethinking of most of the established grand historical narratives. Highly aware of the potential lying in people's histories to help solve pressing problems, a growing number of critical historians are refocussing their research to elaborate alternative theoretical frameworks and explore new methodologies which would enable a more comprehensive understanding of these same historical realities. This challenging intellectual exercise is fostering the idea that history, equally to (Smelner, 2002), if not more than, the rest of the social sciences, has a social purpose, the most momentous being to ameliorate the quality of life of the people.

Sharing in common such a democratic perspective of the past and impelled by the present social crisis, the emerging network of critical social historians is drastically transforming the history research agendas in European universities. This undertaking is accompanied by an extensive historiographical discussion, which is helping to reformulate a strong revisionist approach on the 'origins' and development of the European state welfare system. This means that the previously-held conception of history as linear and irreversible, which reconstructed the history of social welfare in European countries as a stage-after-stage process, rooted in the Middle Ages and reaching its apex in the twentieth century state welfare arrangement, is being contested and disproved. That type of 'progressive' history, which depicted the modern state welfare system as the most advanced social stage in a long historical course, attracted most of the research work at a time when a general political consent regarded this same social welfare system as permanent and irrevocable. On the contrary, the new critical history approach, developing out of the various contesting arguments based on Europeanwide comparative research, claims that the historical study of social welfare needs to take into consideration the interrelationship of all forms of social care and assistance practised in the various communities during any period in history. This fresh research outline means that in practice historical research needs to centre more on the various combinations of self-help and family care, intermediary social assistance (community-level charitable bodies, religious brotherhoods, guilds and mutual-aid associations) and state social services and institutions (hospitals, dispensaries, schools), to the extents that these were developed, in different locations throughout history.

In support of its contribution to the above historiographic debate on the subject, original research in the Maltese context is making evident the variety of ways in which the urban poor, during most of the nineteenth and early decades of the twentieth centuries, employed informal, intermediate and formal levels of social and health care assistance as part of their daily strategies for the preservation of their households. Repetitively surfacing from this focussed research on the Maltese social milieu, is the application in present circumstances of personal, family and community collective memories by the people in the shaping and acting out of their daily survival strategies, not least with regard to their capability to secure social provisioning and health care.

On the policy making level, this new historical research and theoretical paradigm highlights the potential of the earthly logic and practical wisdom found in people's histories to assist the formulation of new social welfare policies which would help ameliorate the general quality of life and standard of living of

the population. Could a new, sustainable, human-centred, social solidarity network be constructed on the basis of a flexible combination of self and family care, voluntary/ community assistance and formal government institutions? At this point one cannot help but mention that, as part of its deep democratic nature, this suggested 'mixed welfare culture' can also provide internal safeguards against the previous state utilisation of social services and institutions for surveillance and control over sectors of the population. In this way, the controversy, which has characterised the historiography of the welfare state, between the 'progressive' interpretation of the welfare state as positive on the basis that it extended social assistance, health care and public education to the working classes and the Foucauldian concern with state institutions as forms of disciplining the body and intensifying social control (Jone & Porter, 1990; Gladstone, 1995; Thane, 1996) can, perhaps unwittingly, be passed over.

The refocussing of historical research on labouring men and women, the elderly and the hospitalised and their use of social assistance and health care services, requires the development of a more elaborate research methodology. In actual fact, it is always difficult to reconstruct the common people's daily activities in the past because of the lack of primary archival documentation, as the majority of the working poor left very little, if anything, written 'for posterity'. A number of official reports and administrative accounts constitute the bulk of the written sources available and these only provide generic descriptions of the social and economic conditions of what were termed 'the lower classes'. Moreover, these officially-stamped narratives are frequently replete with prejudiced and essentialist notions of the people, conceived as an anonymous homogeneous mass and therefore providing a partial one-dimensional social perspective. For this reason, the setting up of a new research framework entails the systematic evaluation and employment of a mixture of 'alternative' sources which includes oral history, visual material including photography, personal/family records (see Fox & Lawrence, 1988; Roberts, 1995) and other ephemera. Through this roping in of a variety of historical sources, provided by and therefore totally dependent on the support of the community, a more socially-intimate, people-centred reconstruction of the past is facilitated. As it comes to present previously suppressed voices, hidden daily records and personal effects, hitherto considered insignificant to the writing of history, this new research method requires social historians with a critical-pluralistic aptitude and trained to discern, to examine, work with and discuss, the multiple levels - oral, written and visual forming historical reality.

It was with this main purpose in mind that the *Oral History Centre and Archive* was founded some three years ago within the Department of History. During its relatively short period in existence, the OHC has proved successful in many ways as can be gauged by the growing number of audio and video recorded interviews deposited in its archive and their increasing popularity with researchers, as well as by the long list of elderly persons who are waiting to record their own recollections. This major project undertaken by the OHC, entitled: *Maltese Voices of the Twentieth Century*, intends to record, transcribe, analyse and make available to researchers - and later on to the public - recorded interviews with people from all walks of life on specific themes which have been and still are, neglected by conventional Maltese historiography in general.

Currently topping the list of our oral history projects is the immediate recording of testimonies/ recollections on the various practices of social assistance, provisioning, social solidarity and the use of charitable and government institutions (such as the *Monte' di Pieta'*). At this point, the recording of first-hand reminiscences by ex-patients who experienced confinement or rehabilitation in public health institutions is already generating interest even in their initial planning stage. This oral history venture

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has been given a boost during this same academic year with the collaboration of the elderly persons attending our new course on personal reminiscence and life histories, at the University of the Third Age. Most of the elderly attending this programme provided, with conspicuous enthusiasm, personal and community recollections and life/family histories either on tape or script, in addition to family records, photographs and a range of other authentic materials, which are now deposited in the new *Life Histories* and *People Daily Records* sections of our archive.

An initial analysis of a wide sample from these recorded recollections, has provided a wealth of minute details on the practical and social skills employed by family members 'to make ends meet' assure 'a decent existence' and the healthy reproduction of their households, during normal times and in war conditions. One common feature which instantly emerges from these taped interviews and life history records is these persons' shared intimacy with and constant allusions to, their own family and community past, which they themselves perceive as inseparable from their social existence. This oneness with the past structures these people's earthly logic which enables them to deal with the multitude of difficulties which they have come to consider as part and parcel of ordinary existence.

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Further information about the Oral History Centre and Archive may be found on the website at: http://home.um.edu.mt/history/oralhistorycentre.pdf

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University Mathematics: The Cradle of Thought for effective policy-making

Dr. Irene Sciriha

NO STUDENT SHOULD LEAVE UNIVERSITY without partaking of the legacy of knowledge that the renowned Greek mathematician and philosopher Plato left us. "Let no man ignorant of geometry enter here;" so read the inscription over the door of Plato's academy. The Greeks raised the Egyptian and Babylonian mathematical tools to the level of abstraction. To them we owe the power and poetry that is the meaning of University Mathematics today. Do we still harbour the utmost respect that the Greeks paid to Mathematics? Do we still have their conviction that only through the spirit of inquiry and strict logic could one understand a person's place in an orderly universe?

Mathematics is as old as humanity. In every time and culture there have been people with a compelling desire to understand and discover more of the form of the natural world around them. Mathematics, originally meant to encompass all knowledge, has nowadays a relatively restricted scope: quantitative and spatial concepts, order and form, logic and structure, algebra and geometry together with a wide range of interdisciplinary fields. Little do we realize that the many gadgets we would not do without today, such as the dynamo, the motor and the signal transmitter or receiver, are run by a system of equations; that Mathematics has shaped the luxuries and necessities we have today; that it is the key to the new cures and the cutting edge innovations and technologies of tomorrow.

Mathematics is unique among the Sciences and Humanities. It is not a set of opinions. It is not even a set of truths but a beacon of light that enables truths to be found. Mathematics is versatile. It can be invented by composing new axioms or discovered by developing existing theories further. Mathematics may be considered as a minute fraction of the art of creation. It is an intellectual instrument that has shaped our world throughout man's historical journey. Generating Mathematics gives us a taste of God's joy of creation. Great mathematicians, like Copernicus, Kepler and Newton, have taken the world by storm. They have changed the course of history because their creations have moulded their perception of life into a more realistic one.

Mathematicians create a hypothetical world, mostly based on real-life experience and enjoy the thrill of unlocking the mysteries, signs and wonder of their own design. They learn how to learn and are not bonded to a particular skill that easily becomes outdated. Mathematics is both an art and a science. The tension between the two attitudes reflects the conflicts that arise among its several branches as well as within the wide range of disciplines that owe their *raison d'être* to it.

Mathematics is a way of thinking. The mathematician does not fear confrontation since no argument can undermine correct results which are based on an accepted system of axioms. Mathematics is a way of structuring our thoughts and arguments and is alien to illogical, often confusing regulations and interpretations of the law. The clarity of logical theory often conflicts with reality. This explains the friction that ensues when, at scientific meetings, mathematicians sit at the same round table as other scholars who start savouring power-wielding political positions and enjoying experiments with hazy strategy.

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The western world is seeking pragmatic solutions, tending to use Mathematics as a tool, vying to render the various disciplines economically viable. Such trends can spell doom to a seat of learning where creativity should be the ultimate goal. Researchers need liberty and time to produce effective results and this is particularly necessary for mathematicians. In his *Metaphysics*, the Greek philosopher Aristotle says that the mathematical sciences originated in Egypt because there "the priestly class was allowed leisure to preserve knowledge." No wonder mathematicians strive to seek contentment in a world of their own creation, especially when the ever increasing administrative obligations infringe upon the time that would otherwise be dedicated to deep thought.

The word *university* means a unity of knowledge. Students and academics meet to seek after knowledge, truth, discovery and creativity for their own sake, striving to achieve personal competence, leadership and above all integrity. Though an ancient and venerable institution, established in 1592, our university is in constant renewal. Long experience has established the good quality of the degrees it awards. The extent by which they are transferable to the most prestigious universities worldwide, as a basis for higher degrees, is the measure of our high standard. To increase the nation's respect and retain its standing as one of the best universities worthy of its name, it is important to continually appraise its status and the direction in which it is heading.

Teaching is a two way communication system. The primary aim is the benefit to students but it also elicits in teachers an intense sense of altruism and an urge to facilitate the path leading to their students' academic success. The teaching staff in the Department of Mathematics are committed to produce a future generation of mathematicians capable of designing higher levels of theory and to empower their students with the ability to think critically, analyse logically and reason scientifically. Emphasis is laid on establishing attitudes that enable the students to increase their self confidence in the subject to such an extent that they will be able to conceive new theories or develop existing ones further without fear.

The university campus is the cradle in which our students are encouraged to lead, to set their goals, to set policies and take decisions that affect society. Mathematics, as a creative discipline, is more than apt to facilitate the students' growth to maturity. A mathematician is like a curious child who has the intuitive and imaginative powers to break away from age-long rigid traditions. S/he has a revolutionary force of spirit that motivates one to set new standards. These leaps in the dark require tenacity and courage. Seeing ahead of the times is often dangerous as history teaches us. Those who were naïve enough to publish radical concepts during their lifetime and insist on their truth, were at best ridiculed even by their peers or dismissed from their universities.

When studying mathematics, students bathe in a luxury of precision where they can focus on a set of non-conflicting rules at a time. This contrasts with what often happens in the real world of physics, chemistry, biology and medicine, where external factors often mask the principal result. Above all, mathematicians acquire the habit of observing all details and sifting from the whole mass of data the bare essentials sufficient to reach their aim. They are trained to solve problems effectively and efficiently. The country benefits from utilizing such intellectual power in all strata of policy making.

For our university to enjoy the high ranking it deserves among world universities, it is imperative that the academic staff in our geographically isolated location have the possibility to participate in new

developments occurring overseas and to export their new creations for possible adoption as a basis for research. The benefit to students from such interaction among academics has become more apparent in recent years. The Department of Mathematics boasts of joint research with academics from universities and research institutions in Serbia and Montenegro, England, Scotland, Ireland, Italy, Bulgaria, the United States, Canada, Russia, Japan, the Czech Republic and Slovakia. Whereas we are developing theories in combinatorics, graph theory, eigenvector techniques, quantum logic, differential equations and physical Mathematics for the sake of their beauty, we are also looking into the possibility of contributing to the interfaces with other disciplines. Of particular interest to us, is the study of error codes, data structures and molecular energy.

In what way is our university unique? What is the Mathematics Department contributing which is of relevance to society today? We are certain that the graduate scientists that we mould according to our expertise are capable of delivering results. Through the projects that the Mathematics Department sets its students towards the end of the course, we realize that the Mathematics graduates will manage to deliver what the labour market expects of them. The students are given three weeks in which to self-learn a mathematical software language and are asked to produce a program to solve a proposed idea effectively. Even though the performance of our students during classes and final exams is proof enough of their ability, what they deliver in these projects leaves no doubt as to their worth as designers, thinkers and above all executers, reliable and responsible in a work environment. They can meet any challenge where creativity and design are required.

The strategy of the Mathematics Department is to focus on all stakeholders without allowing any to destroy its traditional values. This demands corrective feedback for continual evaluation by reacting to emerging scenarios. We need mathematicians who are able to overcome the fragmentation that confuses and to unify theories; people who are able to have a clear global view of most relevant results. It is as if these people have the possibility to climb up to the roof of a multi-storey building from where they can relate sites well below them and determine the potential for interaction among these sites.

Students are encouraged to question established theorems, to produce new proofs to existing results and to create new theories. To this end, the Mathematics Department hosts a series of workshops held bi-annually. Initially intended as a pedagogical exercise, the Collection workshops and seminars have developed into a more meaningful exercise. Results have surpassed even the best expectations. The exercise has evolved into a tool that identifies the golden particles of the talent and aptitude in Mathematics among our young. Students and staff meet to exchange new ideas, pose new problems and arouse an exciting yearning for more exposure to Mathematics. Such interaction does wonders in building the self-confidence that students so desperately need to persevere in the challenging subjects that may initially prove difficult to understand. It motivates them to prove themselves among their peers and mentors. For some students, the outcome is an eloquent example of how a possibly lost cause is turned into a win. These seminars have proved to be the breeding ground for students who fell in love with mathematical creativity and decided to continue with postgraduate studies. Participants of the Collection workshops strongly acknowledge the role of such activities in fostering personal development and encouraging independent thinking and initiative. In his book, To be a Pilgrim, Basle Hume writes "The love of God dawns slowly." The same can be said of the intense interaction with Mathematics.

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These bi-annual seminars require a great deal of effort to organise. We seek to search for a balance in the wide scope of Mathematics and in the new interests of the Mathematics population at the university and all over the island, a balance of ideas and even of gender among participants. The preparatory session in which the organisers discuss the validity of the theories that the speakers have created and secretly nurse with pride and an element of trepidation, needs to be handled with care. While encouraging the students' interests, the organisers must ensure that the result of the whole exercise will be to increase, not only the participants' understanding of the subject but also the latter's standing in the local mathematical community. The organisation of the actual event also requires attention to ensure that all possible support is given in terms of equipment and physical space. Attracting the right kind of audience is crucial for the participants to feel appreciated. It is vital that audience and speakers are made to feel important. The hardest work, however, starts after the event when the articles need to be collected and photos developed. The editorial team meets regularly to publish the proceedings. This is an opportunity for the students to learn mathematical typesetting software and the format a paper should take to be accepted in a respected mathematical journal.

Editing original work is a demanding job, especially since new theories are prone to error. The greatest lesson the participants learn from these experiences is that as my friend, Ted Hurley of the National University of Ireland, states in a postscript to his e-mails, "He who never made a mistake, never made a discovery." It is very encouraging for the teaching staff to learn that in their classes they have students who can discuss and question established results. It often comes as a surprise to tutors that they triggered off the interest of the students in the areas that they came across first at university and that they motivated the students to adopt Mathematics as a creative hobby.

The *Mathematical Society* born within the Mathematics Department and continually sustained by it, seeks to attract the interests of the Maltese at large. National issues related to Mathematics are discussed and the society seeks to emphasize the presence of Mathematics in most of our pastimes, home activities, commercial works, art and industry.

Besides Mathematics, our students study another subject, usually Physics, Statistics or Computer Science which complements the former. Will a person who has gone through the mill of listening, making one's own, understanding and overstepping the threshold from accepting and copying to taking the initiative to make innovative endeavours, leave society, the place of work or the family unaffected? Equipped with an understanding of a wide scope of knowledge, our graduates can provide the nation with the brain power for innovation and sustainability. It is up to the nation to ensure that it avails itself of this preparation and turns it into a bundle of opportunities by avoiding under-employment of our graduate power.

Albert Einstein, who is acknowledged as the genius of the last century, gave the best tribute one can give to Mathematics: "God is a mathematician; subtle are the ways of the Lord." It normally takes two to three generations to realize applications from theory. Whereas the jump to a new theory is done by one individual, it is invariably the result of several smaller steps that require a slow understanding. Sir Isaac Newton called the many people who prepare the spade work, "giants on whose shoulders we stand to be able to discover more of the infinite ahead of us." This more than justifies the time spent by mathematicians in creating theories that initially seem to be a figment of the imagination, futile and unrealistic.

True researchers see the need for a balance between the lure for immediate returns, achieved by recycling current knowledge and the painstaking creation of new ideas and search for new discoveries. The former may appear to pay in the short term but excluding the latter will have us stagnate in a rut. Poor and to be pitied is a university that becomes richer at the expense of suppressing creativity which is not immediately marketable. Researchers demand faith from industry and society in general, in their ability to create attitudes conducive to growth. The country receives much from the university and in turn it is bound to give the university the possibility to exercise its freedom in its service to truth and innovation.

It is important that we elicit trust from society. The images of the scientist and his/her prime supporter, the mathematician, that are projected to our students and the general public need to be that of facilitators who improve the quality of life, of healers committed to prolong life and improve the environment, rather than of enigmas, of manufacturers of explosives or of polluters.

With the opening of our doors to Europe, Malta is at a crucial juncture. It can stand on the pillars that the university can provide or go into a lull by under-utilizing the product we produce. Whether the country suffers a brain drain or a brain gain depends on the respect that the nation shows towards its graduates. European academics and researchers are following with interest the efforts by the European Commission to fund and promote scientific research. In spite of the seemingly wide range of thematic areas in the current EU research programmes, most scientists cannot identify their fundamental research with these funded programs. Forty-five Nobel prize-winners teamed up to outline these concerns to European Commissioner for Research, Philippe Busquin. Professor Tim Hunt emphasizes that the journey of creation and discovery along which researchers tread is initially unknown and cannot be formally laid down in a contract as required by the current EU funding mechanisms. Sir James Black confirms, "If we have any thought for our future, we must invest some of our wealth in the long term creation of new knowledge."

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Servicing the regional community through research— the role of the University of Malta's Euro-Mediterranean Centre for Educational Research

Professor Ronald G. Sultana



The EMCER director, Professor Ronald G. Sultana, giving a keynote address in Toronto

THE EURO-MEDITERRANEAN CENTRE FOR EDUCATIONAL RESEARCH (EMCER) is one of the more recent of the University's research centres. Building on the Faculty of Education's Comparative Education Programme, which was established in 1994, EMCER sets out to further one of the University's main goals—that of becoming a pole of excellence in the interdisciplinary study of Mediterranean and European issues. In pursuing this goal and in focussing specifically on the challenges that education systems in the Euro-Mediterranean region are

facing, EMCER has made a number of contributions that highlight the way Universities can be mobilised to support development goals of the wider regional and international community.

EMCER has adopted a three-pronged approach to its activities. First is the research aspect, particularly qualitative research that involves field work in different Mediterranean and European societies in order to capture the lived realities of complex educational dynamics. So far, fieldwork has been carried out in Syria, to document the way global education has been integrated in the basic school system;¹ in the Occupied Territories, where an evaluation was carried out of the Education



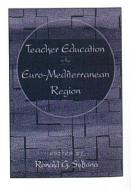
In the field in Hebron, interviewing teachers and students unable to go to school due to the curfew restrictions imposed during the second intifada

Management Information System set up by the Ministry of Education,² as well as of the Distance Education Project in the beleaguered town of Hebron;³ and in Tunisia, where an in-depth study of the competency approach in the compulsory education cycle was carried out over a period of four years.⁴

Most recently, EMCER has been involved in looking into the educational entitlement of Palestinian refugee children in the UNRWA schools in the camps in Lebanon, Jordan, Syria and West Bank and Gaza. In all these studies, field visits, first-hand observation, interviews and analysis of documents enabled the development of insights which feed into the policy-making process of different

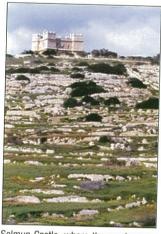
stakeholders. Other projects, involving desk research in the main, have looked at the lifelong career guidance policies and agendas as these are being articulated in the EU accession and candidate countries,⁵ and across 29 European states.⁶

Secondly, EMCER has a strong research dissemination agenda. The different studies referred to above have all been published in international academic journals and have been presented in conferences the world over. EMCER has also published several volumes addressing specific educational issues



SERVICING THE REGIONAL COMMUNIT

in the region, including higher education,⁷ innovation,⁸ teacher education,⁹ power,¹⁰ special education,¹¹ science education,¹² and the link between education and economic development¹³ In addition, the research centre is responsible for the publication of the *Mediterranean Journal of Educational Studies*—a biannual refereed international review now in its ninth year of existence and supported by the University of Malta's Publications Committee.



Selmun Castle, where the seminars on Mediterranean education are held

Thirdly, EMCER attempts to serve as a regional node for other educational researchers, as well as social scientists with an interest in Mediterranean education systems. The Centre co-ordinates a network and database that now includes over 250 scholars and has helped to bring together a number of them to seminars in order to debate challenging issues that are of common concern, such as innovation, teacher education and power. Personal ties developed at such meetings have helped consolidate long-lasting academic partnerships that have borne much fruit over the years. UNESCO has recognised the role played by EMCER in promoting a Euro-Mediterranean space for educational research by awarding it leadership of a Unitwin Network of Mediterranean education scholars.

EMCER is presently exploring the possibility of developing a fourth dimension to its activities, namely the offering of postgraduate research-oriented courses for students from across the Euro-Mediterranean region. The recent decision by the European Commission to launch the Erasmus Mundus programme should sustain such efforts and might very well provide the seed funding that is necessary to make this aspiration a reality. The fact that EMCER has been awarded the UNESCO Chair for Mediterranean Education Studies should similarly help the Centre reinforce its standing in the international research community and to attract promising students from the region.

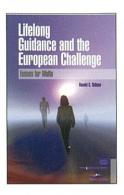
The Centre's activities are self-funded, with research grants coming through from such organisations as UNESCO, UNICEF and the European Cultural Foundation. Commission funding has also been secured for comparative research of the lifelong guidance field and for the development of a Policy Handbook that will be used to guide European Ministries of Education and Labour in their attempts to take on the implications of lifelong learning for the development of career information and guidance systems.



The Centre operates as a loose network of associated scholars, engaging academics from across the region according to the profiles required by the different research projects it is involved in. The core detached members supporting EMCER's activities are the members of the regional board of editors of the *Mediterranean Journal of Educational Studies*, whose role it is to ensure networking, within their own respective countries, on behalf of the Centre.

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EMCER also services educational needs in Malta. It is presently involved in several projects, including the analysis of Vocational Education and Training, ¹⁴ the provision of teacher training for staff at the Institute of Tourism Studies and the Malta College of Arts, Science and Technology and the development of a Malta policy in the lifelong guidance field. ¹⁵ It has also been a key promoter for the establishment of the Commission's Training of Trainers Network (TTnet) in Malta and across the new Accession states and of the National Forum for Lifelong Guidance.



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Further information about The Euro-Mediterranean Centre for Educational Research may be found on the website at: http://www.educ.um.edu.mt/mep/

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From bench to bedside: the future of academic medicine

Dr. Josanne Vassallo

ACADEMIC MEDICINE has traditionally been regarded as bridging the gap between research in the basic sciences and clinical medicine. Teaching at undergraduate and postgraduate level constitutes an essential function of all academic institutions but has to be complemented by research into the physiology and pathophysiology of disease. This enables the development of diagnostic and management strategies to cure acute illness, ensure disease control and a good quality of life in chronic disease. Disease prevention remains however, the ultimate goal.

The research methodologies employed in the pursuit of these goals vary in the breadth and complexity of the technological advances applied to study disease processes. The utilization of *in vitro* models using cell or organ culture, or *in vivo* studies using animal models enable the elucidation of cellular physiology and pathophysiology. Molecular biology has pushed our knowledge of intracellular regulation and dysregulation to previously unimagined frontiers. Mapping of the human genome was a landmark for medical science but signalled the beginning of a new era in research into the genetic basis of disease. The extrapolation of information acquired in this manner to the prevention, identification and treatment of different diseases in itself needs to be carefully analysed and therefore generates the need for further study, given both the complexity of the human body and the well documented interspecies variation. For example, the development and eventual release of a therapeutic agent for clinical use may span a time period ranging from ten to twenty years. Continued surveillance of the marketed products is then still essential to monitor effects and adverse events which may emerge with increasing use of those agents.

Interindividual variability in susceptibility to disease and in response to management have also been repeatedly documented. Gender and age differences play a definite role as do genetic factors. Recognition of this has led institutions such as the *National Institute of Health*, the *Food and Drugs Administration* in the United States and various prominent European research funding bodies to insist that studies include individuals from different ethnic minorities and races where genetic, cultural and environmental differences can further modify disease processes, their management and the response to treatment. One outstanding example is the study of diabetes mellitus in the Pima Indians where environmental and genetic factors have resulted in a high incidence and prevalence of obesity and diabetes with distinct characteristics from an epidemiological point of view. Malta ranks third amongst European countries regarding the prevalence of diabetes, dyslipidaemia, obesity and the resulting morbidity and mortality associated with these conditions is the subject of ongoing research. The metabolic and endocrine aspects of cardiovascular disease are one aspect of that research.

Basic scientists and clinicians working within the Faculty of Medicine and Surgery of the University of Malta have traditionally been limited by the constraints plaguing academic medical institutions worldwide. However, they have persevered in spite of the odds. The results of such research endeavours can be seen at both national and international conferences and in papers in peer-reviewed international and national publications. A significant number of the presentations at the 5th Maltese Medical School Conference held early in December 2003 bore testimony to the span of scientific work of members of

the Faculty. The conference faculty included prominent local and foreign chairmen and speakers. Junior members of staff had the opportunity to present the results of their research, an essential part of their postgraduate training, to conference delegates. The interaction between local and foreign scientists and clinicians proved a stimulating and fruitful experience. The conference proceedings and abstracts were published in a special conference issue of the *Malta Medical Journal*. Whilst one could argue that Malta is too small to embark on such endeavours, the educational value of such conferences is not to be underestimated. Furthermore the presentation of data of relevance to the practice of medicine in the Maltese islands is essential to the continuing development of healthcare locally. Not only do population differences have to be identified and defined but the economic, environmental and genetic backgrounds of our patient population necessitates careful analysis and auditing of new methodologies and treatments. Continuing cost-benefit analysis is also necessary to ensure the appropriate allocation of funds in a health service that is constantly expanding its service provision to a population experiencing increasing longevity as a result of advances in medical science. Within this context, patient oriented quality healthcare needs to be safeguarded and in recognition of this, consultation with stakeholders is mandatory.

Members of the Faculty are invited to form part of various consultative committees at the University of Malta, St Luke's and Mater Dei Hospitals, the Department of Health and various associations which have a regulatory or educational remit. These range from advisory committees dealing with the planning and development of educational programs to continuing medical education and research. The introduction of new services and the development of management guidelines to optimise patient care is another facet of the ongoing commitment to the professional and lay community. Since 2001 for example, a multidisciplinary team has been established and is responsible for the peri-operative management of patients undergoing transsphenoidal surgery for pituitary gland tumours. A recent audit carried out in 2003 and presented at the *Malta Medical School Conference* revealed results that are at least as good as those obtained in centres of excellence abroad with the added advantage that patients and their relatives are no longer subjected to prolonged stays and recurrent visits to overseas centres. Non-governmental patient organisations such as the *Malta Diabetes Association* which do sterling work in patient education and care, with a focus on the provision of patient oriented quality healthcare and patient empowerment similarly draw on the expertise and voluntary services of various members of the healthcare professions.



The Malta Medical Journal, the official publication of the Faculty of Medicine and Surgery, serves as a forum where studies of local relevance to the Maltese scientific, medical and patient communities are published. Data presented pertain to the epidemiology, diagnosis and management of local health problems including the implications of politically based and financially determined decisions. These data form the basis of informed decisions regarding policy and management issues.

The Journal similarly provides a source of reliable information and data for the media in the preparation of informative articles for the general public. A recent issue of the journal contributed significantly to the local anti-smoking debate by highlighting the harmful effects of smoking. The introduction of a ban on smoking in public places was already the subject of debate over 30 years ago in what is

probably the first ever treatise to be published in Malta dealing with this problem. A recent study by researchers at the Faculty highlighted the increasing prevalence of smoking in different generations of the Maltese public and the associated lung diseases and co-morbid conditions. Peer review ensures that publications are rigorously scrutinised regarding originality, scientific content and relevance to the readership which constitutes doctors, dentists, pharmacists and other members of the paramedical professions. The chairman and members of the editorial board dedicate their time and energy to promoting academic medicine and maintaining standards through the production of this non-profit publication which reflects the research activities of the Faculty.

Whilst the value of research targeting local issues is well recognized, the forging of links with intstitutions and organisations abroad both within the European Union and with other countries is to be lauded. The benefit gained from collaborating with colleagues in established centres abroad and participation in networks of excellence is essential for continuing professional development and staff training at underand postgraduate levels. Links with various European and other Universities have been established with a number of visiting professors lecturing and co-supervising research degrees at the University of Malta. Graduates are encouraged to proceed abroad for further specialization and training and traditionally return to Malta on completion of their training to the benefit of the local population. Malta's accession to the European Union will serve to facilitate this process. The only serious cloud to this silver lining is that if the infrastructure, career progression and financial remuneration of health care professionals both as academics and as providers of medical services (at the University and at the hospital) fail to improve, then Malta could be facing a serious brain drain as has been experienced by other countries in the past. The responsible governmental and organizational bodies would do well to be proactive in developing strategies to preempt such a blow to academic and clinical medicine. With this in mind The Malta Medical Journal has committed itself to an international campaign in partnership with the British Medical Journal to promote debate regarding the future of academic medicine and to revitalise academic medicine. A country's development and progress depend on the optimal utilization of its resources and cultivation of its human resources is crucial to tackle challenges in a variety of sectors on a national and international basis.

The end of our exploring will be to arrive where we started and to know where we are.

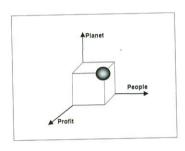
TS Eliot 1942

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Sharing E*xperiences on Sustainable Development

Dr. Ing. Jonathan C. Borg & Engineer Mary Grace Micallef

COUNTRIES AROUND THE WORLD, including Malta continuously strive to develop their economies. Nevertheless, they also need to ensure that any development that takes place is executed in a sustainable manner. The concept of Sustainable Development (SD) is as a matter of fact concerned with such a balanced development between People, Profit and our Planet (3Ps) as schematically illustrated in the figure below. SD is thus not as many think, concerned with only the "planet's environmental" issues - rather it is concerned with development taking place in equilibrium between the 3Ps.



To facilitate knowledge transfer taking place between different EU member states, the EU Socrates Programme funds what are known as Learning Partnership Projects called Grundtvig One such project is SDIT (Sustainable Development and

IT in Adult Education) which concerns the exploitation of Information Technology (IT) to enhance adult learning about the concept of Sustainable Development. Due to the proactive

role industry needs to take to support the concept of sustainable development, the Department of Manufacturing Engineering at the University of Malta joined SDIT in 2003. This has allowed the Department to cooperate and exchange case-studies with the other project partners coming from Latvia, The Netherlands, Italy and Belgium. For example, the Italians exploit Etna's lava. Lava, apart from being processed and used for souvenirs is also utilised for pavement tiling. Furthermore, the fertile soil produced as a result of flowing lava is exploited for agriculture. Needless to say, the latest IT software and equipment are used to continuously record and monitor the behaviour of this volcano in order to be able to predict any eruptions that might occur.

A different perspective of SD is exploited in the Flemish region of Belgium, where one finds Lidwina Foundation. This is a 'sheltered workplace' that employs over 400, with 360 of the staff having either a mental or physical disability. Such 'sheltered workplaces' provide an environment where people with disabilities can carry out 'minor' jobs for a living which nevertheless enhance their selfesteem whilst also providing an added value from an industrial point of view. The Dutch partner, XGRANT, is concerned with the "people's" perspective of SD. They help former drug addicts to get trained and employed so as to facilitate their reintegration within society. From the Maltese perspective, a presentation on the sustainable



Packaging by disabled





SDIT Project Partners in Mol, Belgium Dr Borg and Engineer Micallef are 3rd and 4th from left respectively

Reuse in Latvia

design of products was provided to the project partners during a visit made to Mol, Belgium. It concerned the design of a packaging container which besides taking environmental issues into consideration had to ensure that it could be fabricated economically and profitably. It provided an insight into IT-based tools used in designing products from a SD perspective. In Latvia, the partners visited the *Distance Education Centre* at Riga Technical University, where case-studies including the exploitation of fresh water flows for generating electricity were presented. Due to the different backgrounds of the partners involved, the SDIT project has been an excellent and effective mechanism for knowledge transfer on Sustainable Development to all partners concerned. One cannot but encourage others to exploit such EU knowledge transfer opportunities. Detailed information about the activities and events of this SDIT project including case-studies is available at: http://www.eng.um.edu.mt/~dme/sdit.html

DR ING. JONATHAN C. BORG is Head, Department of Manufacturing Engineering, Faculty of Engineering and member of the National Commission for Sustainable Development.

MARY GRACE MICALLEF is an Engineer with WasteServ Malta Ltd.

Student Statistics

Undergraduate	m	f	Total
Humanities	813	1114	1927
Sciences	331	168	499
Other disciplines	121	215	336
Postgraduate	m	f	Total
Humanities .	252	305	557
Sciences	36	23	59
Other disciplines	52	59	111

Student Population 2003				
Undergraduate	m	f	Total	
Humanities	1865	3209	5074	
Sciences	927	573	1500	
Other disciplines	403	691	1094	
Postgraduate	m	f	Total	
Humanities	526	539	1065	
Sciences	117	69	186	
Other disciplines	79	82	161	

New Graduates 2003			
Undergraduate	m	f	Total
Humanities	422	665	1087
Sciences	152	80	232
Other disciplines	24	41	65
Postgraduate	m	f	Total
Humanities	125	128	253
Sciences	28	13	41
Other disciplines	22	28	50

also awarded:

2003: 417 diplomas; 23 diplomas (postgraduate); 42 certificates (postgraduate)

Degrees conferred, Diplomas awarded 1999-2002:

· .			
	m	f	Total
1999	958	1020	1978
2000	645	660	1305
2001	943	1029	1972
2002	937	1096	2033

	0000	
	2003 Lm	2002
Income	12,992,900	Lm 12,863,617
Expenditure		
Staff costs	(10,813,480)	(10.415.000)
General Expenses	(2,800,328)	(10,415,836) (2,636,445)
acceptance of the control of the con	(13,613,808)	(13,052,281)
B 6 11 6 11		(,, , , , , , , , , , , , , , , , , ,
Deficit for the year	(620,908)	(188,664)
CAPITAL PROJECTS FUNDING		
Balance at 1 January	(107,001)	(135,325)
Capital projects payments effected by		
the University during the year	778,143	1,061,001
	C74 4 40	005.050
	671,142	925,676
Remittances received from Govt.	(720,013)	(1,032,677)
Balance at 31 December	(48,871)	(107,001)
BALANCE SHEET		
Fixed assets		80.0 (80.00)
Quoted investments Unquoted investments	151,800 256,450	151,800
onquoted invocations	408,250	256,450 408,250
-		400,200
Current assets		
Loans Debtors	152,961	151,208
Prepayments	196,893 246,939	197,305 303,736
Cash at bank and in hand	1,275,636	1,186,492
	1,872,429	1,838,741
		, , , , , , , , , , , , , , , , , , , ,
Current Liabilities		
Funds designated for specific purposes:		
Academic	763,354	601,297
Operational resources	747,764	471,135
Other Capital Projects funding	1,064,463	876,461
Creditors	48,871 305,566	107,001 220,035
	2,930,018	
	2,330,010	2,275,929
Net current liabilities	(1.057,589)	(437,188)
Total assets less current liabilities	(649,339)	(28,938)
Represented by:		
Specific endowment funds	96,444	95,937
Other funds Capital fund	F0 F00	80
Net (deficit) surplus	59,500 (805,283)	59,500
,y p.u.o	(649,339)	(184,375) (28,938)
92 N	The second secon	(=5,000)