

# Research

OUI faculty members perform research on various topics in the different fields of knowledge: Social Sciences, Humanities, Natural Sciences, Exact Sciences and Engineering.

## The Research Authority

The Open University Research Authority (RA) supports research activities by locating external funding sources and assisting in submitting proposals to external funds, and provides direct support by allocating resources from the internal research fund. A Steering Committee, composed of faculty members from various disciplines, operates alongside the RA and is responsible for overseeing its academic activity, allocating resources and assessing applications for funding.

## Research clusters

Last year, the University's research activities were analyzed and mapped, and research clusters were defined. This year, members of the clusters met to consolidate collaborative research areas. To date, four clusters have been formed: "Matter and Life" in the areas of Natural and Life sciences; "Policy" combining a variety of disciplines; a cluster addressing identities and social change; and another that deals with the study of networks. This resulted in the formulation of a procedure to establish research institutes and research centers. Proposals currently on the table will be examined according to that procedure, after approval by the University Senate.

## Availability of faculty publications

This year, the RA took steps to help researchers make scientific articles available on their websites, subject to copyright laws. The aim is to expose the scientific community, the general public, and OUI students to scientific work conducted by faculty members. The articles were posted on the researchers' websites.

## Annual Research Day

The annual Research Day organized by the RA is designed to publicize the research activities of the senior academic faculty and the teaching staff. This year's Research Day was entitled "Open Research," and included an active exhibition of selected research topics by OUI researchers. On display were samples of research materials and research methods. Students who participated in the research projects also took part in the exhibition.

## Standards grants

This year, an experimental venture to award standards grants began. This is a non-competitive annual allocation of funds earmarked for experimental researchers from among the senior faculty, in order to conduct essential, ongoing research. The grants will be allocated to experimental researchers according to the following criteria: a) when researchers are in need of a fixed budget for their research studies to cover long-term, essential requirements that are not connected to a specific study or project; b) when colleagues of researchers working in the same discipline at other universities have a similar budget, for a long period and on a non-competitive basis. Grants amounting to NIS 50,000 are allocated to researchers who do not use a laboratory outside the OUI; NIS 150,000 is allocated to researchers who run independent laboratories, as part of a collaborative agreement with another academic institution in Israel.

## Tools for administering research budgets

The computerized tools available to researchers for the administration of research budgets were upgraded and updated this year. It is now possible to receive clearer and more comprehensive reports on the results of studies conducted and on the balance of the budget available for research activity.

## Intellectual property regulations

New knowledge and information created in the course of research activity conducted at the University may be classified as intellectual property. The process of formulating regulations for intellectual property created by the Open University or resulting from the use of University resources is almost complete. The Open University would like any new knowledge with commercial potential to be exploited for the benefit of society and the economy while generating income for the University. It should be used both to promote OUI goals and to provide a fitting reward for its creators.

## Research Grants from External Funds

Thirteen studies conducted by Open University faculty were awarded funding from external funds this year:

- **Prof. Anat Barnea**, Dept. of Natural Sciences, received a grant from the Israel Science Foundation (ISF) for research on “Effects of environmental and hormonal conditions on brain plasticity in adult birds”
- **Prof. Yagil Levy**, Dept. of Sociology, Political Science and Communication, received a grant from the Israel Science Foundation (ISF) for research on “The tradeoff between force and casualties in democracies at war”
- **Dr. Inbal Ofer**, Dept. of History, Philosophy and Judaic Studies, received a grant from the Israel Science Foundation (ISF) for research on “From a shantytown to a barrio: Democratization through the eyes of a Madrid neighborhood (Orcasitas 1956-1986)”
- **Dr. Baruch Ziv**, Dept. of Natural Sciences (with Dr. Hadas Saaroni, Tel Aviv University), received a grant from the Israel Science Foundation (ISF) for research on “The evolution of Mediterranean cyclones and its linkage to their inner structure” and a grant from the Jewish National Fund (KKL-JNF) for a climatological-synoptic study on “Fluctuations in Negev rainfall in the last 50 years: Is it evidence of climate change?”
- **Dr. Tali Heiman** and **Dr. Dorit Olenik-Shemesh**, Dept. of Education and Psychology, received two grants from the European Commission (EC), as part of a consortium led by the University of Koblenz-Landau, for their research on “Cyber-training for parents” and “The virtual anti-bullying village for kids”
- **Prof. Miriam Souroujon**, Dept. of Natural Sciences, received a grant from the European Commission (EC) for research on “Myasthenias, a group of immune mediated neurological diseases: From etiology to therapy”
- **Dr. Noam Shental**, Dept. of Mathematics and Computer Science (with Prof. Eytan Domany, Prof. Irun Cohen, and Dr. Ittai Fattal, Weizmann Institute of Science), received a grant from the Tauber Foundation for research on “Validation of an autoantibody microarray signature for Systemic Lupus Erythematosus”
- **Dr. Levi Spectre**, **Dr. Yuval Eylon** and **Prof. Amir Horowitz**, Dept. of History, Philosophy and Judaic Studies (with Prof. David Enoch, Prof. Oron Shagrir, Jonathan Yaari, and Gil Sagi, the Hebrew University; Dr. Hagit Benbaji, Ben-Gurion University; Prof. Ruth Weintraub and Assaf Weksler, Tel Aviv University; Dr. Arnon Keren, Haifa University; and Assaf Sharon, Stanford University), received a grant from the Van Leer Jerusalem Institute for research on “Theory of Knowledge”
- **Dr. Avner Caspi**, Dept. of Education and Psychology, and **Dr. Ina Blau**, The Chais Research Center, received a grant from the Inter-University Center for E-learning (MEITAL) for research on “The influence of podcasts and screencasts on the effectiveness and the experience of learning”
- **Prof. Yoav Yair**, Dept. of Natural Sciences (with Prof. Colin Price, Prof. Lev Dorman, and Dr. Lev Shirman, Tel Aviv University), received a grant from the Ministry of Science and Technology for research on “The establishment of a space weather research infrastructure in Israel”
- **Prof. Shlomo Shoval**, Dept. of Natural Sciences, received a grant from the Ministry of National Infrastructures for research on “The influence of the lithology, mineralogy and chemical composition on the development of the collapsed sinkholes along the Dead Sea coast: Laboratory study of the petrology, mineralogy and chemistry of the collapsed sediments”

Two of the studies are described below.

■ **Prof. Yagil Levy:** "The Tradeoff between Force and Casualties in Democracies at War"

Three democracies: The U.S., Britain and Israel are involved in counterinsurgency campaigns in Iraq, in Afghanistan and in the West Bank, Gaza and Lebanon. This involvement spurs domestic criticism about flawed performance relative to the original goals, the human cost of combatants and enemy noncombatants, and the wisdom of being embroiled in asymmetric conflicts in which the powers are limited in their ability to employ effective warfare.

Thus, the increasingly insistent domestic demand to limit casualties, known as the "casualty phobia syndrome," leads to the use of excessive force to reduce the risk to which soldiers are exposed, by changing military doctrine and using technology instead of human combatants. At the same time, the use of excessive force may increase the opponent's noncombatant fatalities. This is the force/casualty tradeoff (FCT), i.e., using methods that reduce risk to the soldiers at the expense of inflicting more losses on enemy noncombatants that could have been averted had soldiers been exposed to greater risk.

Though current scholarship recognizes the existence of the tradeoff, it has not yet explained how it works. It is one thing to claim that the FCT guides military policies and another to show under which conditions the two values involved – using force and preventing casualties – are really and dynamically exchangeable and vary by periods, battlefield arenas, the identity of protagonists and more. The proposed research aims to fill the theoretical gap in the literature by presenting the values involved, through two variables: the legitimacy of using force and the legitimacy of making the attendant sacrifice. The goal is twofold: First, to understand the policies of the three democracies in their counterinsurgency campaigns by analyzing the interplay and exchange between the two sets of legitimacies. Second, through the findings, to help to theorize variance in the state's space of operation in the military domain in which FCT is one possible consequence of the interaction between the legitimacies, while other variations in the profile of each legitimacy may produce other results.

■ **Dr. Inbal Ofer:** "From a Shantytown to a Barrio: Democratization through the Eyes of a Madrid Neighborhood (Orcasitas 1956-1986)"

The barrio of Orcasitas was the largest of the shantytowns that sprang up around the outskirts of the city of Madrid in the 1950s. For over 20 years, the dwellers of Orcasitas struggled, first against the backdrop of the weakening Franco dictatorship (1939-1975) and then within a newly forming democracy, in order to establish their right to the land they had occupied, and to obtain what they perceived as a sustainable living environment.

The aim of the current research is to follow the neighborhood's change from a shantytown into a residential barrio, using its physical/geographical evolution as a key to understanding the process of identity formation undergone by its inhabitants. By concentrating on a single neighborhood over time, I wish to analyze the ways in which identities were enacted and reenacted across gender lines, class barriers and different life-stages. In addition, I examine the manner in which the experiences of life in Orcasitas shape the residents' view of the larger political events and of their civic status.

While a substantial number of works have been written about the Spanish transition to democracy (1975-1981), it is only in recent years that Spanish historiography has started to look at this period from the perspective of those who were neither unionized nor members of political organizations. It is my hope that the current study will shed light on the ways in which this transformative process was experienced and perceived by the men and women "on the street."

## Research Grants and Scholarships from the Internal Fund

The Open University places funds at the disposal of researchers to leverage their projects, so that they can be submitted to external funding sources. During the 2009-2010 academic year, 133 applications were submitted to the RA for funding from the internal fund. The Steering Committee approved 94 (70.6%) of them.

## The Chais Research Center for the Integration of Technology in Education

The Chais Center is a research body that examines the integration of technologies in teaching processes. At the Center, University faculty members from all disciplines investigate processes designed to enhance the integration of such technologies into course teaching. The studies address different aspects of learning technologies and their applications. The Center operates as a consortium of faculty members from the various OUI departments, supports studies conducted by its members, and allocates scholarships to outstanding graduate students in relevant disciplines. It also organizes regular academic activities in the form of conferences, workshops and research seminars. This year, close to 50 research studies were conducted at the Chais Center.

Below are short descriptions of selected studies conducted by members of the Chais Center:

- **Dr. Ruth Gafni and Dr. Nitzza Geri:** “The effectiveness of collaborative educational activity in online forums”

The study examined the impact of compulsory assignments vs. elective assignments on online forums on students' achievements. The findings showed that the obligation to post an assignment on an online forum improved the level of achievement, although no further collaboration or social interaction between students was observed.

- **Dr. Paul Gorsky, Dr. Avner Caspi, Dr. Avishai Antonovsky, Dr. Ina Blau and Asmahan Mansur:** “The link between academic discipline and dialogic behavior on Open University course forums”

The study investigated the connection between academic discipline (Humanities vs. Natural and Exact Sciences) and dialogic behavior in Open University course forums. It was found that there was considerably more participation in forums in courses in Natural and Exact Sciences than in Humanities courses. Moreover, a fixed ratio of the different types of postings was found, irrespective of discipline or the size of the course.

- **Prof. Yoram Eshet and Dr. Sigal Eden:** “Reading and editing texts in print vs. digital format”

The study focused on the ability of readers to edit and correct texts in print or digital format, which deliberately included spelling, punctuation, grammatical and semantic errors. This is another in a series of studies aimed at examining students' ability to read and edit texts in various formats.

- **Dr. Yoram M. Kalman** (with Dr. Darren Gergle, Northwestern University): “The richness of lean media”

The study examined the use of simple cues such as question marks, asterisks, spaces or repeat letters by online media users (e.g., e-mail and micro-blogs, like Facebook and Twitter). The research focused on Twitter postings and status updates on the Facebook pages of commercial companies and found that such cues were as widespread and influential as cues in regular non-verbal media.

### “Learning in the Technological Era” – 2010 Chais Conference

A conference entitled “Learning in the Technological Era” was held this year, as every year, with the cooperation of EDEN, the European Distance and E-Learning Network. This was the fifth in the series of national research conferences on learning technologies. The conference contributes to guiding the Israeli research community in the use of instructional technologies and reinforcing the Open University's prominent research status in this area.

## Allon Fellow Joins the OUI Faculty

The prestigious Allon Fellowship for excellent young researchers guarantees the best candidates tenure-track positions in Israel's universities. The university undertakes to hire them upon completion of their three-year fellowship and fund their posts from regular budgets. **Dr. Ophir Münz-Manor**, an Allon Fellow, joined the Dept. of History, Philosophy and Judaic Studies this year.

## Appointments and Promotions

- **Prof. Yair Auron**, Dept. of Sociology, Political Science and Communication, was promoted to the rank of Full Professor
- **Dr. Bat-Zion Eraqi Klorman**, Dept. of History, Philosophy and Judaic Studies, joined the Senior Faculty with the rank of Associate Professor
- **Dr. Aviva Geva**, Dept. of Management and Economics, was promoted to the rank of Associate Professor
- **Dr. Daniela Leibowitz**, Dept. of Mathematics and Computer Science, was promoted to the rank of Open University Associate Professor
- **Dr. David Lorenz**, Dept. of Mathematics and Computer Science, joined the Senior Faculty with the rank of Associate Professor
- **Dr. Eran Chajut**, Dept. of Education and Psychology, was promoted to the rank of Senior Lecturer
- **Dr. Nurit Gronau-Bitan**, Dept. of Education and Psychology, joined the Senior Faculty with the rank of Senior Lecturer
- **Dr. Ophir Münz-Manor**, Dept. of History, Philosophy and Judaic Studies, joined the Senior Faculty with the rank of Senior Lecturer
- **Dr. Inbal Ofer**, Dept. of History, Philosophy and Judaic Studies, joined the Senior Faculty with the rank of Senior Lecturer
- **Dr. Gil Alon**, Dept. of Mathematics and Computer Science, joined the Senior Faculty with the rank of Lecturer
- **Dr. Tal Hassner**, Dept. of Mathematics and Computer Science, joined the Senior Faculty with the rank of Lecturer
- **Dr. Dafna Hirsch**, Dept. of Sociology, Political Science and Communication, joined the Senior Faculty with the rank of Lecturer
- **Dr. Ravit Nussinson**, Dept. of Education and Psychology, joined the Senior Faculty with the rank of Lecturer

## New Visiting Faculty at the Open University

- **Dr. Gal Ben-Yehudah** joined the Dept. of Education and Psychology
- **Dr. Galia Benziman** joined the Dept. of Literature, Language and the Arts
- **Dr. Yoram M. Kalman** joined the Dept. of Management and Economics
- **Dr. Ishay Landa** joined the Dept. of History, Philosophy and Judaic Studies
- **Dr. Nurit Melnik** joined the Dept. of Literature, Language and the Arts
- **Dr. Levi Spectre** joined the Dept. of History, Philosophy and Judaic Studies

## Prime Minister's Award for Composers to Dr. Ron Weidberg

**Dr. Ron Weidberg**, of the Department of Literature, Language and the Arts, was among this year's recipients of the Prime Minister's Award for Composers. The judges stated: "Ron Weidberg's composition has encompassed all areas of music over many years. His vocal music is noteworthy for the originality of its melodic creativity, and use of a rich language based on an extensive knowledge base and emotional depth. His selection of texts is unconventional and indicates the social involvement of a composer aware of his environment. In all of his works, Weidberg adapts the performance ensemble to his content in a concrete manner, devoid of pathos. The compatibility in his works between text and music produces moments of spiritual elevation and a memory that lingers long after the work has ended."