

2010 World Social Science Report

Knowledge Divides

Background paper

Social sciences in the Arab world

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Social sciences in the Arab World. Research institutions, issues and initiatives

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This article deals with aspects of social sciences' status in North Africa and West Asia. It covers 13 Arab countries: Morocco, Algeria, Tunisia, Egypt, Lebanon, Syria, Jordan, Saudi Arabia as well as five 'Gulf countries' (Kuwait, Bahrain, Qatar, the United Arab Emirates and Oman).

Our data results from field studies (of eight Mediterranean countries investigated from 2006-2008 for the European ESTIME programme), and from experts' 2008 monographs of each country for the 'Mapping science in the developing world' exercise (a special UNESCO Forum initiative for Higher Education and Research). We also reviewed the relevant literature and compiled the most recent statistics. Our facts and figures mainly relate to the Maghreb countries. They draw from an exclusive study which we conducted in a very large library (the Abdulaziz Foundation in Casablanca, Morocco) devoted to gathering and indexing the *entire* human and social sciences production in this part of the world or dealing with it.

The paper begins with an overview of the context and its weight in the development of the social sciences (the blossoming of higher education, the social environment, support and impediments). The second part deals with the institutions (governance, performers, funding, and cooperation), the human resources and the output. The last part deals with the present challenges, initiatives and prospects.

1. The social and institutional context of the social sciences

Social sciences are mostly university disciplines

In the Arab world, social sciences are now mostly performed by scholars working in academic and public institutions. Often starting from scratch, *universities* in this part of the world have grown tremendously over the past 50 years and are still growing. Consequently, numerous teachers have been recruited (Fig. 1). Generally, social sciences equal and sometimes outperform other university sciences numerically. Human and social sciences students account for two-thirds to three-quarters of the total enrolment. Faculty members account for one-third to half of all academic staff (Tables 1-3). As in other disciplines, academic career progress is linked (in principle and in most public institutions) to research work. The general output in social sciences therefore grew at a significant pace (Fig. 2).¹

¹ More data can be drawn from ESTIME website: <http://www.estimate.ird.fr/> 1. Arvanitis, R., *ESTIME : Towards science and technology evaluation in the Mediterranean Countries (Final report)*. 2007, IRD Project n°INCO-CT-2004-510696. ESTIME: Evaluation of Scientific, Technology and Innovation capabilities in Mediterranean countries: Paris p. 80. and Satti's (2005) article p. 249-275 (2).

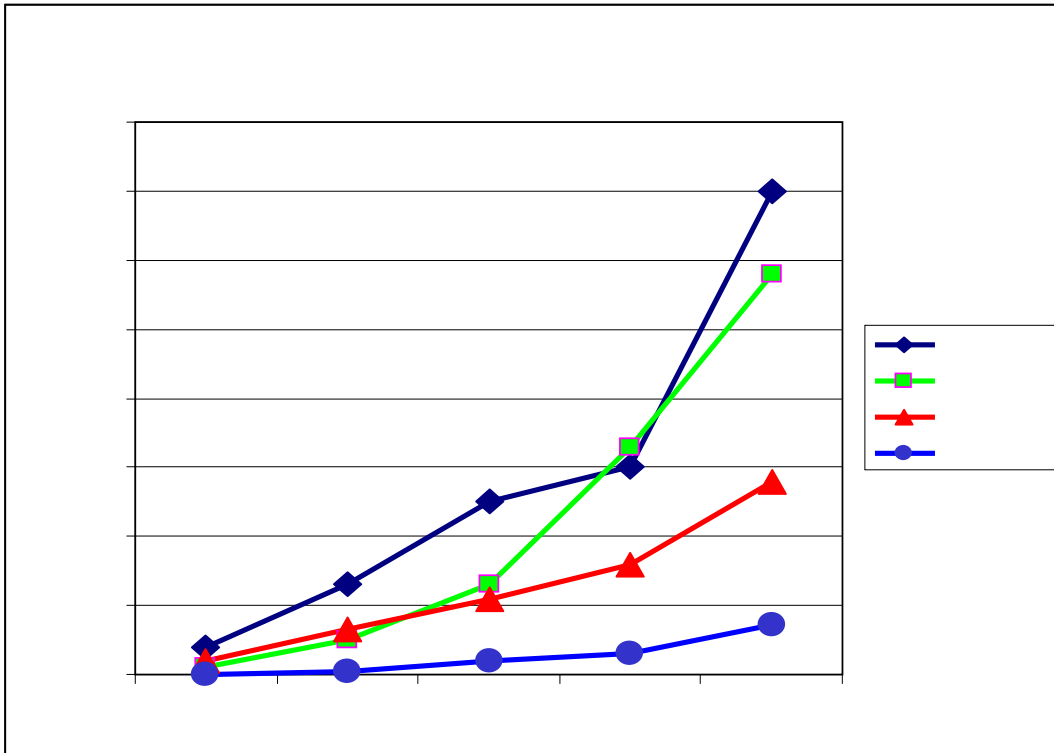


Fig 1. Growth in the number of academics (all disciplines) in Arab countries: 1965-2005
 Source: UNESCO, Forum for Higher Education and Research, special initiative *Mapping science in the developing world* (Mouton J. & Waast R. eds.).

Table 1. Percentage of human and social sciences students and faculty (some Arab countries)

	Morocco	Algeria	Tunisia	Jordan	Kuwait
% Students	78	49	62	61	65
% Faculty	41	27	32	50	48

Source: Al-Shimaly (2007) for Kuwait, and ESTIME country reports for other countries.

Table 2 Distribution of human and social sciences students (some Arab countries)

% Students	Morocco	Algeria	Tunisia	Jordan	Kuwait
Soc Sc	43	Na	40	40	46
Arts & Hum	35	Na	22	21	19
Other disciplines	22	31	38	39	35

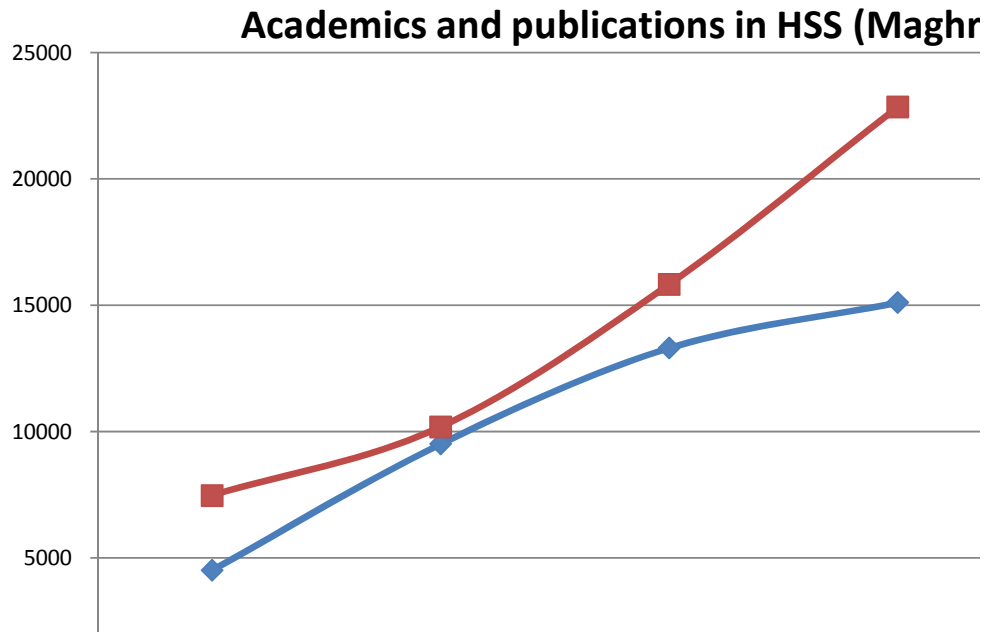
Source: Al-Shimaly (2007) for Kuwait, and ESTIME country reports for other countries.

Table 3 *Distribution of human and social sciences faculty members (some Arab countries)*

% faculty	Morocco	Algeria	Tunisia	Jordan	Kuwait
Soc Sc	16	20	20	25	30
Arts & Hum	25	7	12	25	18
Other discipl	59	73	68	50	52

Source: Al-Shimaly (2007) for Kuwait, and ESTIME country reports for other countries.

Fig. 2 *Growth of human and social sciences output and academics (Maghreb countries, 1980-2005)*



Source: The Library of the Abdulaziz Foundation in Casablanca. Analysis by Waast R. & Rossi P.L (2008). [3] ‘Publications’ are those classified as ‘academic’ by the Library (3/4 of the library content).

A specific knowledge with distinctive constraints

It is not the social sciences’ work conditions (professional status, salaries, careers, and funding) that distinguish them from other disciplines, but the way they are *socially inscribed*; that is, the way they act upon society and their collective acceptance by society. They act as a specific knowledge, with distinctive constraints.

The social sciences subject matter is intimately linked to local problems; and results are often published in local languages for a local audience. These results pertain to the values, and to their understanding; that is, they are influenced by these values, but can also influence them. They are therefore very sensitive to the social environment and its support of science. With regard to the latter aspect, there are large differences between the regions and countries due to their history, social context, institutional arrangements, the role of the state and past and present development models. According to these criteria, we can distinguish at least four main zones: the Gulf countries, Egypt (as well as Iraq and, to some extent, Syria), the Maghreb countries and the Middle East.

Four typical models

a) The Gulf Countries. On independence (in the 1960s or 1970s), most of the Gulf countries adopted an ‘Anglo-Saxon model’ with ‘elite’ universities. These universities undertake some research in natural and exact sciences and are open to collaboration with foreign countries. Conversely, the human and social sciences are ‘closed’ to foreign collaboration and reserved for Arabic-speaking scientists. In both cases, a pragmatic science has developed that is linked to local issues. In human and social sciences, an instrumental view of social research dominates: sociology is social engineering, economics is mainly oriented towards enterprises and business, and Islamic philosophy or law dominate in the humanities. Research is mainly restricted to universities, is partly funded by the state, and by a number of foundations. It is mostly undertaken by foreign professors, hired in large and growing numbers. As these countries are preparing for the ‘after oil’ era, they want to move towards a knowledge economy, and actively import western skills and expertise by promoting Gulf campuses of prestigious universities (the Abu Dhabi campus of the Sorbonne University is an example).

b) Egypt (as well as Iraq and, to some degree, Syria) established a mass education system early on - including universities – whose purpose was to train a technical workforce capable of implementing their development model of mass production geared to domestic markets. The so-called ‘developmentalist state’ [4] played the main economic role. When this model was abandoned, the state’s monopoly on education was also abandoned. Private colleges and universities have proliferated (but do little, if any, research), while the quality of public higher education institutions have diminished. They are overcrowded and poorly funded, leading to low staff income and status. A number of academics and researchers have moved (at least temporarily) to the Gulf countries, where the growing need for foreign and Arab-speaking skills is well remunerated. Locally, a substantial number of academics are drawn to consultancies and expert positions. Support for research is mainly channelled through foreign or – more rarely – local funding agencies. Research no longer depends exclusively on state support. These new dynamics have significantly transformed academic hierarchies to the benefit of externally funded networks rather than state patronage.

c) The Maghreb countries (Morocco, Tunisia and Algeria) adopted an institutional and intellectual model that draws its inspiration from Europe (especially from France) with which they have important scientific relations. Following independence, they set up strong universities and prestigious polytechnics, highly selective schools for high-ranking bureaucrats and business leaders. They also established national research centres that focused on a variety of different fields, including social sciences. State oversight remains strong, and nationalist and secular governments are managed by a technocratic elite. The entire education and research system functions without private-sector support, which (even lately) has been unable to carve out a significant share of the research activity. Scientific talents and vocations are abundant, and research is recognized and accepted as a career. Tunisia has been most constant in its support of science, and has recently developed a full set of institutions specifically geared towards research – an exception in the region.

d) The Middle East.

In stark contrast to the larger developmentalist states and the Maghreb countries, the smaller Middle Eastern countries (Jordan and Lebanon) have centred their social and economic model around commerce and international trade rather than on industrial mass production. Most universities in these countries are private and quite recent. Private institutions do little research, except for the two oldest and most prestigious ones: the American University of Beirut (AUB) and Saint Joseph, established in Beirut in 1863 and 1875 respectively. The Lebanese

University, set up in 1953, is the only public university in Lebanon. It mainly focuses on teaching (concentrating half of the country's student population) rather than on research. Two or three others can be cited in Jordan: Jordan University in Amman and Yarmuk University at Irbid (which include human and social sciences, while the very good JUST University at Irbid is only for S&T disciplines).

A number of commercial research centres, consultancy firms and NGOs have recently been created in the social sciences in response to demand for internationally funded field studies from foundations and universities. In this demand is notably related to concerns about the regional conflicts, political developments and the Palestinian problems.

Social structure and values as obstacles to scientific knowledge

The social environment encompasses the social structure and values underlying the understanding of science as well as the support and expectations that these provide and anticipate. Arab societies are mostly governed by social communities, lineage relations and religious belief, all of which impinge upon creativity. A significant United Nations Development Programme report by authoritative experts from the region, has underlined the inadequate relationship with knowledge as one of three main handicaps hindering progress in Arab countries [5].

The report blames a spirit to be found in both school and family education that hinders freedom of thought, providing little scope for inventiveness. In addition, there is the relatively *low status of knowledge* in societies dominated by power, wealth and patriarchal values (see Box 1). These aspects are well documented in the UNDP report and in numerous monographs. For instance, in our fieldwork (Al Husban), we noted that the social definition of science boils down to the possession of a certificate. The degree is what gives the person social status in society and even in the university. The family (parents, wife, brothers and sisters) assume that their son and brother, who has a PhD, should dedicate all his time to them and to other social commitments and occasions, simply because he has 'mastered all possible knowledge'. [6]. Knowledge also has a peculiar status, with a strong relation to a mythical stance: "There is a strong social belief which relates the explanation of many phenomena to a divine power. Therefore, scientific research about social and human reasons of phenomena that should be attributed to metaphysical and supernatural powers, becomes insignificant." Furthermore, research in the humanities is at best a waste of time and at worst a sign of infidelity and challenge of God's power. [6] These constraints relate to the society's most profound inner workings.

Box 1. Patriarchal societies provide little scope for creative initiatives

"... The essence of the new patriarchy in Arab society is the patriarchal family, the importance of which is reflected in social relations, particularly those relating to authority, hegemony and dependence... Arab societies are managed by many despots of varying degrees of patriarchy: the head of the household, the elders in the family, tribal chieftains, school principals, council chairmen, heads of state and other father figures. In such societies there can be only small scope to develop initiative and innovation in individuals...

... The traditional patriarchal culture has penetrated the educational system in most schools, reinforcing students' submission to various forms of authority and stifling individual and creative initiatives".

Source: Hisham Sharabi, *Neopatriarchy*, Oxford University Press, as quoted in the UNDP Arab Human Development Report 2003.

Dominance of the political sphere

Furthermore, the state and the political sphere dominate all activities. There is a trend for authoritarian regimes to exercise a heavy control over the social sciences, limiting freedom of thought, setting boundaries, in terms of acceptable and unacceptable topics and applying (auto) censure [7]. Countries such as those in the Gulf, will have to balance strict control over the social science and the world-class research they anticipate after the reforms and the new foreign campuses they have imported [8]. In these countries, censorship is still strong and active, not only on political issues, obliging writers and intellectuals to publish in foreign countries. A recent example is the world famous writer Al-Aswany in Egypt, who could not find a publisher for his first short story. As a member of the Arab Publishers' Union mentioned: "The author and the publisher [of a book] are forced to submit to the moods and instructions of 22 Arab censors and this prevents a book from moving freely and easily between its natural markets." (Fathi Khalil el-Biss, quoted in UNDP Arab Human Development Report 2003). As Romani underlined (see Box 2) and has repeatedly been mentioned in interviews, intelligence services exercise influence on campuses. Not only does the government censor strive to prevent the study of certain issues that might provoke or upset the political regime, it also examines article subjects, conferences and workshops to ensure they are in line with the motto of the day (reported in interviews from our field work in Jordan and Syria). In addition to the local ideological agenda, there is an international agenda promoted and funded by many governmental and nongovernmental organizations that are believed to be from allied or friendly countries. Some of the main research topics include: women's rights, political Islam, child labour, identity problems in the Arab World, democracy and political participation. [6]

Box 2. *Controlling the universities and the choice of topics*

"Universities have long been a National symbol and a political tool. Schools and universities nurtured nationalism throughout the region, and the new states emerging from decolonization moved swiftly to control the campuses on their soil. Indeed, campuses remain a central concern for contested regimes, which regard masses of students both as a means for controlling their people and as representing a potential risk of *losing* control. ...

... Practically, this is illustrated by the presence of intelligence services on campuses, and the consequent control that they exercise over the faculty and the student body (appointment of professors and upper staff, choice of grantees for abroad, daily monitoring of students and faculty's activities)...

... The humanities, social sciences, and liberal arts cannot be expected to develop in highly conservative and authoritarian settings—which explains the expected focus of the new curricula on the 'exact sciences', and the expected 'domestication' of the social sciences within a framework of social engineering.

Humanities and social sciences are particularly at stake. At times, scholarly research on social, religious, cultural, and ethical issues was severely restricted. A delicate balance will have to be attained and preserved between 'domesticated' social sciences within a framework of social engineering."

Source: Romani, V., *The Politics of Higher Education in the Middle East: Problems and Prospects*, in *Middle East Briefs*. 2009, Brandeis University, Crown Center for Middle Eastern Studies: Waltham, Mass. p. 3 and 5.

There are, of course, degrees and exceptions in that picture. Lebanon is the main exception, with a weak state and a very free university life. This is probably what makes it a vibrant place for intellectual debates, and the principal headquarters for publishing companies [9]. Universities and researchers certainly enjoy more freedom of speech in the Maghreb countries (with the notable exception of Tunisia regarding the human and social sciences), even if this isn't without its dangers.

Whatever the ‘friction’ between the political realm and the academic realm (mainly the researchers), the governments should be acknowledged as having granted more support for sciences (including social ones) than the traditional society would have done spontaneously. Political stakes have driven them to support the development of universities through huge funding.

State support for science

State sources of support for science

As a symbol of modernization (the Gulf), rationality (Tunisia), national unity (the Syrian Arab Republic), or the development model (Nasser in Egypt, but also Algeria), higher education and, to some degree, research have at one time or another benefited from the support of national governments. Governments have done a great deal for research through regulations, especially by making academic career promotion dependent on research work. Despite a few exceptions in some specific periods in Egypt or Algeria, governments have not totally restricted academics freedom as happened in other parts of the world, nor totally opposed the profession. Instead, they have tied academia down to centrally controlled institutions (public services, research centres, polytechnics and even universities), preventing the emergence of autonomous scientific communities – a characteristic that is not uncommon in many countries [10]. In spite of a marked preference for natural sciences and engineering over social ones, they have established the latter in all public universities – in part due to the need to train teachers –, and have opened the doors for large numbers of students.

In certain instances, modernist factions in power have developed strong alliances with the promoters of scientific activity in order to advance their own struggles in the political sphere. Algeria offers the clearest example of such a ‘socio cognitive bloc’, periodically uniting the research avant-garde with ‘technocrats’ in order to defeat the ‘patrimonialists’ (as the two opposed views of Algeria were labelled). It could be assumed that a similar alliance supports the dramatic thrust towards a high quality upper education and research, as symbolized by Qatar’s Education City, or similar projects in neighbouring countries [8].

Box 3. *Socio cognitive blocs: ‘Technocrats’ versus ‘Patrimonialists’ in Algeria.*

After 1975, Algeria promoted a ‘scientific option’ vigorously. This included establishing a number of polytechnics and ‘S&T’ universities. Research was organized and budgeted. All this effort was due to the weight that a ‘technocrats’ faction had in the government. They implemented a development programme based on the country’s heavy industrialisation. Their opponents were labelled ‘patrimonialists’ and believed that development had to depend on first establishing an ‘authentic culture’ (original language, religion and values). The development of ‘science’ was objectively linked to the first group of persons. After 1980, they lost their influence and scientists lost their credibility; many of them had to leave the country, research budgets were severely cut and the number of research governing bodies was reduced. Only recently (at the end of the civil war) has there been a strong effort to schedule research and rebuild the institutional environment, thus giving rise to a real surge in production.

Source: Historical data from A. El-Kenz: *Prometheus and Hermes* [11]. On recent changes see ESTIME website and examples in the book edited by H. Khelifaoui (2004) [12].

Such alliances are insecure and fragile, and can never be taken for granted [13, 14]. They depend on the specific regime, the factions in power, political alliances and personalities. As in the Algeria of the 1980s, changes in policy may ideologically strongly oppose the role that

knowledge (scientific or religious) plays in society [12]. State support always has benefits and drawbacks, as long-term statistics show [1, 2].

Other non-state sources of support for science

The most striking feature of recent years – of which 1989 is the symbolic starting year – has been the massive non-state support for research [10, 15]. This global change has profoundly affected the social sciences in the Arab world, allowing dedicated scientists to devote time to scholarly activities.

International scientific collaborations help researchers keep up to date and gain access to funding. The Ford Foundation is very active in this regard. The European Union, too, has greatly influenced the research agenda in the region. Other countries, such as Egypt and Jordan have privileged the development of ties with the USA [16, 17].

Throughout these countries, a diversity of ‘sociocognitive blocs’ contribute to link scientific activities to specific communities or social groups, such as liberal elites as in Egypt and Lebanon, influential families in the Gulf states, or the technocratic strata in Algeria. Several Arab Foundations, such as the Abdel Hamid Shouman Foundation in Jordan or the King Abdul Aziz Foundation for the Maghreb in Morocco have taken a special interest in the arts, humanities and the social sciences, offering unparalleled support for researchers. Despite its idiosyncratic nature, this feature is paramount in explaining the appearance and survival of research groups and specific agendas. This has also been the case in peripheral countries on other continents [18].

2. Science institutions in Arab countries

Governance and policies

Rather than speaking of governance and policies, it might be better to speak of management and coordinating bodies. There is a great difference between these two approaches.

Management bodies are found in Egypt and in the Maghreb, where the state plays a decisive role in the management of the research sector. An inter-ministerial committee meets quite regularly to determine guidelines. Thereafter a permanent authority (usually a Ministry) translates them into regulations, legislation, budget grants and instructions to the beneficiaries. The state thus creates most of the institutions and specifies the statutes of their personnel, who are mostly civil servants. With the exception of Algerian semi-public enterprises, the private sector contributes little. Government and international funding is the main research resource. Moreover, the actors wait for the state to act with regard to the priorities of and encouragement to undertake research. This method is efficient (a general impulse, synthetic plans) as long as the state remains strongly committed to research, but may have pernicious effects such as a bureaucratic spirit, performers showing little initiative and poor networking with non-academic actors.

In contrast, in Middle Eastern countries and the Gulf states the activity is dependent on the performers’ initiative (universities and foundations) and on their decision to either participate in research or not. National bodies in charge of science are supposed to persuade the basic actors to undertake research by providing incentives, services and acting as facilitators. These countries position themselves as nodes in a world-wide network. Their ambition is that of city states determined to capture the flood of wealth and capacities inherent in the global economy and in a knowledge society, rather than struggling to develop their own abilities.

Table 4 Arab countries. General description of the S&T systems

Country	S&T Policy document	Ministry of S&T	Funding Agencies	Other Funding Mechanisms	Type of governance
Algeria	Yes (National Plan, 1998)	Yes Min of state reporting to Min of 3ry Edu	ANRU, ANRS, ANVRST Et al.	PNR (Nat Prog. of Res.) + National Fund RTD + etc.	Centralized
Morocco	Yes (Vision 2006)	No longer (since 2004)	CNRST	Various funds to support innovation: PTI, incubators, etc.	Centralized
Tunisia	Yes (5 th Plan & following Plans since 1977)	Yes Full Ministry	Nat Sc Res Foundation (since 1989) Et al.	Various funds to support innovation: FRP, NPRI, PTI, techparks, etc.	Centralized
Egypt	No	Yes	Several	Initiatives from various Ministries: Agri, Indus, Telecom, etc.	Centralized
Lebanon	Yes Sci.Tech. and Innovation Policy (2006)	No	CNRS Since 1962	Performers obtain contracts from a variety of sponsors; Research funds at the university level	Decentralized
Jordan	No	No	HCST since 1987	Performers obtain contracts from a variety of sponsors	Decentralized
Syria	Yes	No	NCST	Research funds at the university level	Decentralized
Bahrain	–	No	BCSR (acting as agency)		Trade oriented
Oman	–	No	OCIPED Invest Promo 2002	Sponsors	Trade oriented
Emirates	–	No		Sponsors	Trade oriented
Qatar	–	No	Qatar Foundation	Sponsors	Trade oriented
Kuwait	–	Yes Min High Edu & Sctf Res	KFAS Funding & coord since 1988	Sponsors	Trade oriented
Saudi Arabia			KACST since 1977		

There are variants in these main approaches, which do not relate to the way social sciences are dealt with, but to the legitimacy bestowed on science as a whole.

Within Maghreb countries the various governments approach research differently. Governments such as that of Tunisia considers innovation as a development tool and established a national research *system* [19]. Other governments, such as those of Algeria and Morocco, have little confidence, authority is dispersed and achievements come in fits and starts [20]. *Egypt* is a specific case. It has a fragmented system, dispersed initiatives and budgets scattered between various centralized governing bodies such as a ministry, the former Academy of Sciences, and many other ministries that have some impact on research and their own research centres. Certain powerful performers like the National Center for Research, and certain prestigious universities like the American University of Cairo, Ain Shams and Cairo University, are independent and regulate their own activities. Egypt's new configuration of the governance of science – announced in 2007 – aims to concentrate research around a ministry

by creating a higher council for science, a new funding agency for science and maintaining the former Academy of Science as a think-tank for science and technology.

In the Middle East determining a national strategy may prove difficult, especially if there are doubts about progress through innovation. Government calls for tenders compete with that of other international donors and, due to the limited number of research volunteers, a saturation point may be reached regarding how much work they can do – as was documented in Lebanon [21, 22]. Syria has set up a research council with the hope of establishing a national strategy and uniting the diverse research units into a research system.

The Gulf countries are an extreme case. Their strategy no longer aims at building on a national science base; but at locating the best foreign capabilities and innovative R&D firms on their territory. They are building giant premises to accommodate these in ‘knowledge villages’ or ‘academic cities’. This move as well as all initiatives concerning quality research and its funding is run by foundations, like the Qatar Foundation for education & science, KACST in Saudi Arabia and KFAS in Kuwait, rather than by ministries. This strategy clearly targets technological and natural sciences. But human and social disciplines are also at stake, as the importing of the Abu Dhabi chapter of the Sorbonne in the Emirates and the Georgetown University campus in Qatar show. The objective is to challenge the current syllabus and educational methods. The presence of Western institutions is believed to have a liberalizing impact on the culturally conservative region. Furthermore, it is hoped that they will unleash creativity in all fields of knowledge. They may also become the rallying places for young Arab students who face restricted entrance to USA institutions since September 11. It is too early to evaluate this trend, but it is has been well thought through and the strategic views are consistent.

Funding

It is hard to find impartial data on the funding of the social sciences. Most available figures are global indicators measuring each country’s funding of all disciplines. The data on the gross expenditure on research and development –GERD – as a % of the GDP are, however, recent:

Table 5 : GERD as % of the GDP. Most recent data available												
% GDP	MA	DZ	TN	EG	JD	LB	SY	BH	KW	UAE	Qatar	Oman
GERD	0,8	0,7	1,1	0,2	0,6	0,2	0,12	0,05	0,2	0,2	0,5	0,07
Sources	*	*	*	**	*	*	**					
Sources: * = Evaluation of ESTIME (2008), ** = Nour (2005); Others: UNESCO, latest available data (varying dates)												

The GERD includes a variety of expenses, including buildings, equipment, grants for students, and bonuses for researchers. The latter are sometimes not linked to proven practice, but are an additional remuneration that all academics receive in, for example, Morocco. The running costs are generally a very small part – about 5% – of the total.

It is clear that with the exception of the Maghreb countries, the general expenditure on R&D is still much less than that in emerging countries and never exceeds that of the least developed countries. However, a small part of a very huge GDP, as that of the Gulf countries, may well be a sizeable sum if one keeps the very small number of researchers in mind. Qatar has the largest expenditure per researcher in the world according to UIS figures. In addition, Saudi Arabia and the GCC have recently spent huge amounts of money on higher education (see Box 4).

What is *the social sciences' share* of Arab countries' expenditure? There is no systematic effort to provide such an indicator. Researchers often complain of being under-funded by the state. But the data we collected do not clearly support this assertion with regard to the Maghreb countries. In Morocco, the breakdown of the government's competitive funding shows that the various sets of social themes enjoying priority are scrupulously identified and a reasonable share of the funding is reserved for them. In Algeria, research centres accommodating both full-time researchers and the academics engaged in (collective) projects are far from lacking money. On the contrary, calls for tenders from the government do not always attract great numbers of proposals from social scientists. Lebanon is also faced with the phenomenon of a small number of committed researchers having a limited absorption capacity, which has been well described.

Box 4. Flood of expenditure on higher education in the Middle East.

“One important pattern characterizing the current academic boom is a dual process of *privatization* amidst *globalization*. Two-thirds (around 70) of the new universities founded in the Arab Middle East since 1993 are private, and more and more (at least 50) of them are branches of Western, mostly American, universities.

This move involves huge investments from the local states. Over the last five years, the GCC countries have expended at least \$50 billion on higher education, and those levels of spending continue. The United Arab Emirates and Qatar established 40 foreign branches of Western universities in the last 6 years. These undertakings may be joint ventures with the private educative sector (as in the Emirates); or the whole of the premises, equipment and often more may be funded by the state (as in Qatar). In Saudi Arabia, eight universities were operating in 2003, but at least 100 additional universities and colleges have been created there since, and the country's annual budget for higher education has reached \$15 billion for 23 million inhabitants. The King Abdullah University of Science and Technology has been endowed with 10 billion dollars by the King in person, making it the 5th richest in the world. High quality research is on the agenda of the best new establishments”.

Source: Romani, V., *The Politics of Higher Education in the Middle East* [8].

The truth is that many researchers have personal funding, which is sometimes obtained surreptitiously through international projects or agencies, various foundations, or through the region's highly valued parallel activities; the latter include organizing conferences, workshops and debates for a selected public who are charged for admission, as often happens in Egypt and the Middle East. It is almost impossible to measure the amount of funding provided by all the sponsors, including some semi-public firms that traditionally commission studies, as in Algeria. Nevertheless, it has been established that the beneficiaries of this funding are not a large number. They redistribute part of the funding through patronage-based networks to younger, less secure intellectual workers. The very concentrated distribution of publications faintly indicates this phenomenon.

Research performers

Although they are latecomers, the Arab countries now have high numbers of institutions and human resources with which to undertake research. The countries have also been very keen to establish public universities. They have also entrusted research centres with public missions in specific fields, mainly agriculture, health and defence.

Universities

As already mentioned, all Arab countries have devoted resources to education since their independence, which has shown significant results in terms of enrolment, although there are

some discrepancies between countries. In the Maghreb, 20% of the university age group is enrolled at university, 30% in Egypt and more in the Near East². These percentages are comparable to those of Latin America, emerging countries in Asia, and a number of European ones. The number of students has grown very rapidly, and there is a pressure to provide more places, especially in the provinces. All the institutions are consistently resourced, and although they experience volatile funding, they are never without operating funds – as happens in Africa and in some Asian and Latin American countries. In the Maghreb countries, universities are public, while the majority are private in the Middle East, but only a small number do significant research.

Table 6 *The minimum number of institutions required to account for a share of the scientific production*

	MA	DZ	TU	EG	JD	LB	SY	Bhr	KW	UAE	OM	Qat	Saudi A	Iran
X = 50 %	3	4	3	4	2	1	2	1	1	1	1	1	2	5
X = 80%	5	10	5	8	3	2	2	1	1	2	1	1	5	12

Source: Academic ranking of universities in OIC Countries, SESRTCIC, Ankara, 2007. All disciplines.

In each country (see the table above) there are a few universities with high academic standards that function as research sanctuaries. They are proud to maintain a research tradition. They are also the rare few that produce the bulk of publications. Research achievements are part of their reputation and a source of pride for their alumni. Examples are those of old and elite universities like the American University of Beirut where research work is compulsory for faculty members and leading public universities, notably those in Jordan. In the Maghreb countries research is more diffuse, with strongholds which undertake fundamental science even when government support fails. In the Gulf countries, the effect of the new campuses cannot yet be evaluated.

Research Centres

Research centres established by governments and employing full-time researchers are important players in Syria, Egypt and the Maghreb. Contrary to academic research, which is believed to be more individual, these centres undertake joint projects and can also manage them better administratively. They are mostly devoted to applied natural sciences such as agriculture, health, marine science and fisheries, and defence. A few of these research centres do, however, undertake social science research, especially those in the Maghreb countries. University faculty members may be affiliated with such centres and often in greater numbers than pure researchers. They are offered good working conditions to conduct large research undertakings. Examples of such centres are the CREAD and the CRASC in Algeria as well as the Research Centre for Economic and Social Studies (CERES) and the Higher Institute of National Movement History, which is one of the smaller ones, in Tunisia. The model is a European – mainly French – one. Generally, these centres dispose of decent budgets and are often envied by visiting Middle Eastern academics who feel overloaded and under-funded in their own countries.

In the Middle East and Gulf states there are no public research centres, although there are foreign or private ones. France in particular maintains a few renowned institutes in Egypt (CEDEJ), Beirut, Damascus and Amman (IFPO), acting as a haven for both French scholars and local guests for periods of between 2 and 4 years. The most recent and wide-ranging phenomenon is the emergence of new private centres and non-governmental organizations,

² The majority of these students are women, especially in the Gulf countries, as their young men often study abroad.

especially in Palestine, Jordan and Lebanon. These institutions conduct surveys and statistical analyses, focusing on social issues like poverty, child labour or women's health problems. They often enjoy the patronage of the influential kin or close relations of authoritative figures. They also fulfil an important international demand for studies and public research by organizing conferences and empowering actions on the selected fields of gender, governance and demography. This is the main business of hundreds of private study centres, which are usually registered as commercial companies. They employ a great many temporary staff and are supposed to provide research-related services to the local and foreign markets. However, a large number are inactive and do not even have offices. They are nothing more than a name with a valid permit. Nonetheless, some of these centres are very active and carry out activities that compete in quality and quantity with those carried out by the best universities.

Human Resources

Numbers

The headcount of researchers in comparison to the country's population is comparable to that in other intermediary countries in Asia such as Thailand and in Latin America such as Venezuela and Colombia.

Table 7. Headcount of researchers in Arab countries

Headcount	MA	DZ	TN	EG	JD	LB	SY	BH	KW	UAE	Qatar	Oman	Saudi Ar.
All discj*	25 000*	14 000*	25 500*		16 000*				200*				1 500
Other estimates**	25000**	29000**	25000**	90000**	12000**	11000**	11000**	1000£	2400	4000£	na	1500£	na
HSS estimate	7000	8000	5000	29000	3000	6000	na	500	1000	1000	na	500	Na
Sources	*	*	*	**	*	*	**						

Sources: * = UIS Data (2005, except for Jordan which is 2003). Jordan is over-estimated (pb of definition); Kuwait and Saudi Arabia are under-estimated (academics are not taken into account, they are at least 1,200 in Kuwait University alone). Many countries have no available data (Egypt, Lebanon, Syria and the Gulf countries).
 ** Evaluation of ESTIME (2006) (unofficial, reliable sources and field studies); £ = websites

The active part of this potential – expressed as ‘full-time equivalent’ – is a more debatable point. Official figures regarding their proportion diverge between countries often within the same country. They could amount to $\frac{1}{6}$ th or $\frac{1}{8}$ th of the headcount. Following ESTIME enquiries in the laboratories and discussions with the authorities in charge, Tunisia has 1 FTE for every 6 academics, Morocco 1 for every 4, Lebanon 1 for every 10 [21]. There are little data on the proportion of researchers per headcount in the research centres, although it is estimated as $\frac{1}{2}$ in Lebanon [21].

Consequently, the Maghreb countries each have approximately 1,500-2,000 FTE researchers in human and social sciences, Egypt 5,000, each of the Middle Eastern countries 1,000 and the Gulf countries a few hundreds. These figures are consistent with the output.

Statute and Profession

Clearly, there is ample scope for the Arab countries to mobilize their noteworthy potential. However, academics and, to a lesser extent, researchers are not treated badly in that part of the world. The professions remain attractive. In the Maghreb countries, the academics and full time researchers employed by the research centres are civil servants. In the Middle East there are fewer research centres and many more private universities. Their staff are employed on contract. In Morocco as well as in Tunisia, Lebanon and Jordan, faculty members are well

remunerated compared to other careers in both the public and private sectors such as general practitioners working for the Ministry of Health, or army officers and judges.

Table 8. Rate of salaries in the public universities in Jordan (2005)

Lecturer	600-700 JOD
Full Lecturer	800-900 JOD
Assistant Professor	900-1000 JOD
Associate Professor	1100-1300 JOD
Full Professor	1400-1600 JOD

The average salary of some professions and public careers in Jordan

Career	Salary
General practitioners working for the Ministry of Health	400 JOD
School teachers in a public school	240 JOD
Army officers	400 JOD

Source: P. Larzillière, *ESTIME Report, Jordan*[23].

Salaries in the Gulf countries are much better, as they were four times more in 2006. There exceptions are Egypt and Algeria, where remuneration has been dreadfully eroded by an increase in prices. Algeria has begun correcting this loss in earnings. The plan to support universities in Egypt will probably also tackle this issue.

Motivations and Impediments

There are several incentives to do research. First of all, an important feature is that promotion at a public university is linked to the production of personal research. This requirement is more a way to regulate careers than actual proof that research has become a major function in faculties. Monitoring research may be lax and can be circumvented. Nevertheless, in almost all the Arab countries, the link to promotion has served as a powerful spur to undertake research.

There are, however, also disincentives. One of them is bureaucratic procedures which hamper the use of public funds. This has specifically been documented in countries where research is under centralized governance as in Egypt and the Maghreb. Struggling with authorities and the academic establishment may be very time consuming. There are numerous complaints about the rigid hierarchy in the research centres, the bureaucracy and authoritarian control exerted on the whole system, and the mandarin-style academic patronage. Although these complaints are not applicable everywhere and have sometimes been proved to be unfounded, these matters are raised as often as the questions arise of young researchers' lack of initiative and the poor quality of their projects [See e.g., Jordan 6, Algeria 12, and Egypt 24].

And, above all, the career advantages to be obtained from research achievements are poor when compared to the financial benefits researchers could gain from consulting activities and services. There are large scale opportunities to provide consulting services in the human and social sciences as well as in medical sciences, agriculture and engineering.

Growing demand for research

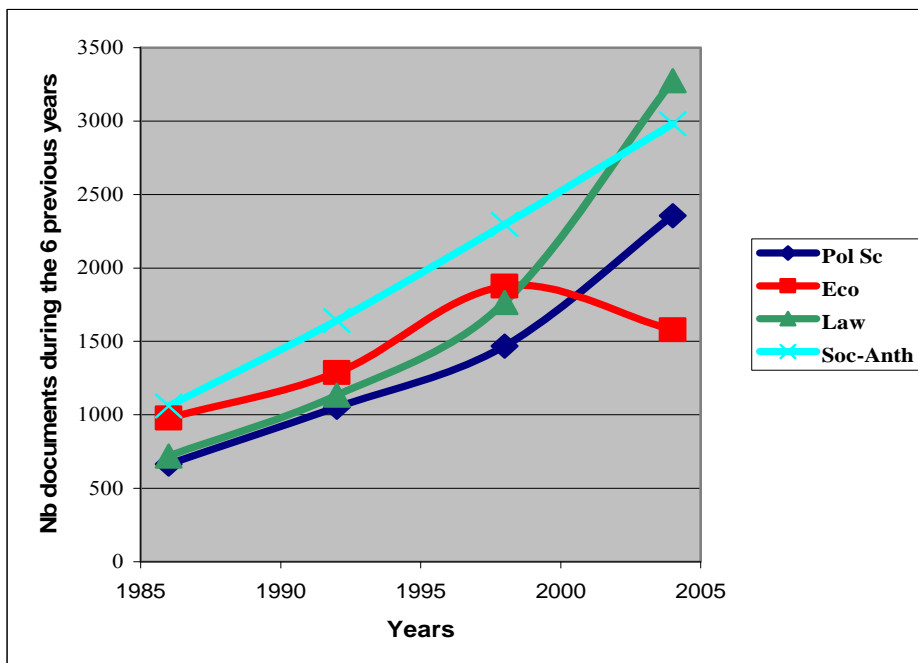
Demand for research may come from local enterprises as in Algeria; from specific groups in quest of legitimization, such as factions or lineages looking for historiographers; from the general public with an interest in, for example, law; from the state for social engineering

purposes and from the media, especially powerful newspaper corporations and TV channels concerned with culture and public debate.

International institutions and actors may also demand research. Foreign scholars may seek local informants and partners (e.g., in political sciences or in archaeology). Furthermore, during the last decade, there has been a sizeable flow of funding from international bodies (UNDP, UNICEF, ESCWA, etc.) wishing to undertake studies and action research on current social topics in that stormy zone. Some foreign private foundations (e.g., the Ford Foundation, German foundations, and large NGOs) have also made efforts to maintain intellectual life and back-up known scholars in the region.

The increased demand for research has had various consequences, especially in Egypt and the Near East. The hierarchy of the disciplines is changing: those that enjoy poor demand, such as political economics, are less respected, while others with a strong empirical orientation, such as anthropology, law, political science, etc. are promoted. Secondly, the way topics are chosen has also been modified: researchers subcontracted by foreign sponsors will adopt the ‘global agenda’ – often a-critically – in order to access the market; others turn to conventional and routine subjects not to confuse the local public. Thirdly, the most visible change concerns institutions: international demand for social sciences saw a flood of private research centres founded in the Middle East. These centres are devoted to empirical studies and take part in empowerment actions. These actions are generally started and managed by young ‘science entrepreneurs’, who are brilliant scholars, keep a foothold at a university and adopt a globalized elite position [25] by mediating between local audiences and foreign sponsors. These centres hire academics on a contract basis, introducing more variety into their working conditions, and forming a group of temporary investigators. They thus change the very structure of the research profession.

Fig 3. Evolution of some disciplines in the Maghreb countries



Source: Waast & Rossi (2008). Corpus of the Abdulaziz Foundation (Casablanca). [3]

The multiple roles of scientists

The social inscription of science mentioned above is paramount to understanding that scientists are very busy with multiple activities other than proper research. This is not necessarily due to financial reasons, but far more to gain status and respond to social and family demands. Close relatives and the social environment do not regard research as a proper activity, as it less recognized than a title such as ‘professor’, ‘medical doctor’, or ‘engineer’[6] (**Box 5**).

Box 5. *The want of recognition and multiple commitments*

“In light of the marginal position of the person with experience and technical knowledge, and the little importance of knowledge in its scientific form compared to religious and mythical knowledge, scientific research does not enjoy the social appreciation and recognition it deserves”... Nevertheless, “[t]he social view (in Jordan) that sees the university faculty members as capable of exercising certain forms of social and political power encourages many people to seek their assistance. Family and neighbours of the researcher regularly visit her/him in the office on campus to ask for favours and services. The position of the researcher within the social power network and her/his ability to exercise power within this network are a permanent concern for him”.

Source: A.H. Al Husban, ESTIME country report (Jordan) [6].

“Multiple random commitments of another nature than scientific prevent the researcher from concentrating on his research and from spending uninterrupted time processing the data”.

Source: Khelifaoui, Scientific research in Algeria [12].

Social scientists multiply their types of participation in the public scene: writing for reputable news magazines and opinion columns of newspapers, joining think-tanks, organizing symposiums and events, taking part in empowerment actions, working in the more reputable professions (lawyers, experts), and becoming involved in policy design and political action. All this is time consuming and has an effect on the type of research that is done in terms of methodologies, which are often hyper-empirical and instrumental, their choice of topics, and the targeted audience, who is the wider public rather than academics. Consequently, social scientists’ visible roles are more those of consultants or as political militants than just scholars; reputation is also a more personal affair than merely the result of a collective behaviour, such as participation in collective research projects, tributes to a school of thought, or action in favour of academic institutions. In short, researchers are highly atomized rather than rallied within scientific communities.

Brain drain

This lack of a scientific milieu and sufficient consideration paid to research may account for the significant brain drain. Although their working conditions are often better than those in other parts of the world, Arab countries are well known for the number of scholars leaving to go abroad and students never returning after obtaining degrees. Algeria and Egypt have been especially hard hit by this exodus, but are also the countries where the profession has been rather badly treated.

As usual, reliable related figures are difficult to find.

Official statistics on all disciplines were released by NSF (USA) in 2000. These showed that 13,000 Egyptian scientists and engineers were established in the USA, 5,000 of whom were employed in the R&D sector. This could ultimately mean that 35,000 highly skilled S&T Egyptians are established in developing countries (the ratio USA / rest of the world comes from official Egyptian sources [24]). The NSF figures for the same period were also spectacular regarding the Middle East³ (see the table below).

Moreover, the strong brain drain from Egypt and the Middle East towards the Gulf countries should be added to these statistics.

Table 9. Number of Near Eastern scientists and engineers established in the USA in 2000

All disciplines	Egypt	Lebanon	Jordan	Syria	Palestine	Kuwaït	Maghreb
Established in USA	12 500	11 500	4 000	5 000	2 600	2 400	ε
Employed in R&D	4 900	5 000	2 000	1 800	700	1 200	ε
Researchers in the country headcount*	75 000	6 000	6 500		Nd	2 400	40 000
Researchers in the country FTE*	15 000 **	600	1000	700 **	NA	500	8 000

Source NSF, cited in Barré, Hernandez, Meyer & Vinck (2003) [26]. * = ESTIME ; ** STS

According to NSF, very few scientists from the Maghreb were established in USA. However, a number are heading for Europe (mainly France) and recently for Canada. Although the situation is less dramatic in Morocco and Tunisia, the brain drain there is also noteworthy. Specific data on the social sciences are difficult to obtain. Through the Abdulaziz Foundation, our study has shown startling results for the Maghreb, with Algeria, which first experienced an exodus during the civil war in the 1990s [12], especially hard hit by the current brain drain (**Box 6**).

Box 6. Brain drain of the human and social sciences (Maghreb). A study based on output.

From the quasi-exhaustive corpus of the Abdulaziz Library (Casablanca), we have listed all the human and social sciences authors and their citizenship between 1980 and 2004. The production is very concentrated as a few persons author a large number of the documents. We then examined where the 200 most productive persons from each Arab country were practising their profession during this period. This research showed that 80% of the 30 most productive Algerian authors were expatriates. The proportion was 66% if one considered the 50 most productive authors, and 45% regarding the 200 most productive authors. The brain drain is half as important in Morocco and Tunisia and expatriations are often for shorter periods.

Source: Waast & Rossi, Les sciences sociales au Maghreb; essai bibliométrique, ESTIME Report, 2006 [3].

Consequently, a significant part of the Maghreb authors' production is achieved outside its frontiers. This expatriate production nourishes foreign communities – notably France and elsewhere in Europe – and contributes little to the local accumulation of knowledge, as the expatriates are often ostracized – as they are in Algeria. Although we have no figures for the Middle East, it is well known that a large number of the better qualified cadres with PhDs who received their education in the best Western universities and have acquired excellent practical experiences in Middle Eastern academic institutions prefer to work in the Gulf countries due to the difference in salaries. Working conditions in the Gulf countries are also more attractive in terms of work hours, the availability of facilities and the social conditions at work. There is

³ In our definition: mainly Lebanon, Jordan, Syria, Palestine and Kuwait.

therefore a drain of qualified and trained cadres who leave the region's educational system and move to the Gulf countries.

International cooperation

One could say that international cooperation is part of the national science policies in the Arab countries. In almost all countries, the research authority has a special department focused on fostering such cooperation and supervising the bilateral programmes. In countries such as Egypt and Morocco, international cooperation may be an important source of funding. Elsewhere, it matters even if its contribution seems small – officially 3% of the GERD – as international cooperation monitors running costs, develops a culture of evaluation and helps identify strategic areas throughout the world. Nonetheless, some countries show quite high co-authorship figures, although the data usually apply to natural and exact sciences, not the social sciences [27].

A number of joint projects are initiated at the laboratory or individual level. Such projects are a way for researchers to avoid insularity, enjoy an intellectual atmosphere, and participate in academic interaction. They obtain additional funding for travelling, are exposed to new concepts and hot topics, and are coached to publish abroad.

There is an abundance of cooperation, which is both an asset and a risk: scientists can become sub-contractors for the trite verification of front-line science, or piece-workers in leading-edge programmes who have no understanding of what is truly at stake. Enquiry shows that most collaborations are between small teams, obtained through short networks and mostly involve projects, not programmes.

Nevertheless, there are numerous examples of individuals or laboratories which gradually built their research topic on a comparative local advantage, became autonomous and are highly regarded in the world of science. There are also examples of networks initiated by foreign endeavour but which resulted in original and wide ranging publications such as the UNDP Human Development Report, and various books resulting from regional studies supported by the French institutes in Tunisia and Beirut. International cooperation at this level has a specific responsibility: supporting institution building, enlarging views and strengthening capacities. Local teams do, of course, have a corresponding responsibility: being ambitious, and identifying anticipated niches such as promising short-cuts to discovery and/or original innovation, which needs a vivid imagination, fresh scholarship and large-scale collaboration. Whatever the case, international cooperation is a necessary component of the local scientific progress.

Informal structures and scientific communities

Attention should finally be paid to the signs that the scientific community in the region is being shaped and strengthened. Among these signs are the frequent conferences and seminars, the flowering of scientific journals, the circulation of scientists, many translations, affordable new books, and the activities of learned societies, professional associations and academies. There are a number of national associations, although they are often short-lived and are constantly being re-formed. In this respect, the Maghreb countries are the liveliest. Networking and face-to-face meetings take place during conferences and workshops. It must be stressed that most events and societies are either local or national, and although they do sometimes have a (sub)regional dimension, such as the Middle Eastern or Maghreb countries, they rarely encompass the entire Arab region. Furthermore, these events rarely result in the co-authoring of articles or participating in joint projects.

There is clearly a lack of freedom in numerous countries and the circulation of books is also restricted (see above). Publishing houses do not generally thrive, with the exception of Lebanon, which is followed by Egypt and, to some extent, the Maghreb [9, 28]. Many scholars, of whom a large number only know Arabic languages, complain that translations are rare, slow and not always of good quality, although Moroccan translators are highly valued.⁴ Cumulative estimates on the number of translations are between 2,000 and 3,000 titles per year, far fewer than the editorial production means, but much higher than the 330 titles mentioned in the UNDP report [5]. Most reference books are either local or outdated translations of foreign works. Public and university libraries are often poorly stocked.

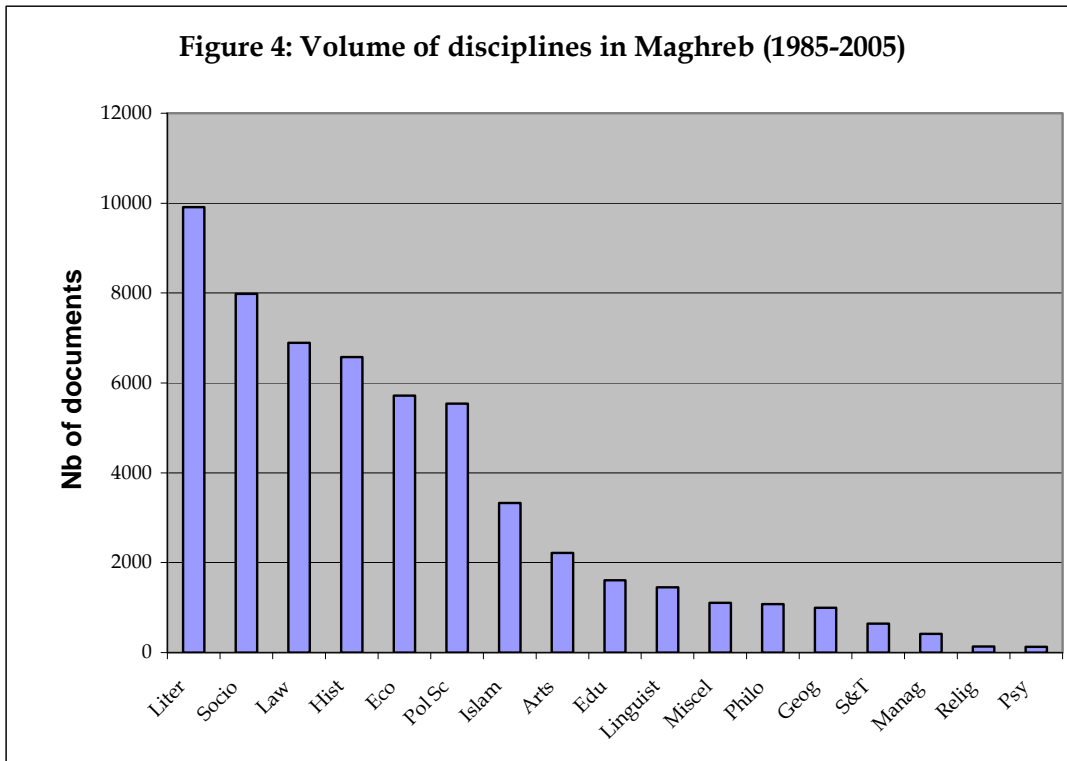
Above all, the science profession is greatly atomized. There is very little structuring of research in teams or laboratories, as in natural sciences. The ideal remains that of talented individuals and personal careers. The lack of a scientific milieu adds to the problem and is probably the main shortcoming in this region where the ambient values do not naturally support a dedication to research. Scientific debate is limited to small circles of specialists, or enclosed within the leading establishments. Scientific communities undertaking ordinary tasks have yet to be established.

Output

Nevertheless, the picture should not be painted too black. Despite the real constraints and impediments, scientific production is thriving – at least in the Maghreb. This is shown by a detailed study of (almost) all the books and articles written about the Maghreb and by its authors, and which the Abdulaziz Foundation in Casablanca (Box in Appendix) has gathered and indexed. Among the wealth of results, a few are worth reporting.

The production of books and articles grew significantly within a 25-year period (see figure 2 above). The most favoured disciplines are depicted in figure 4.

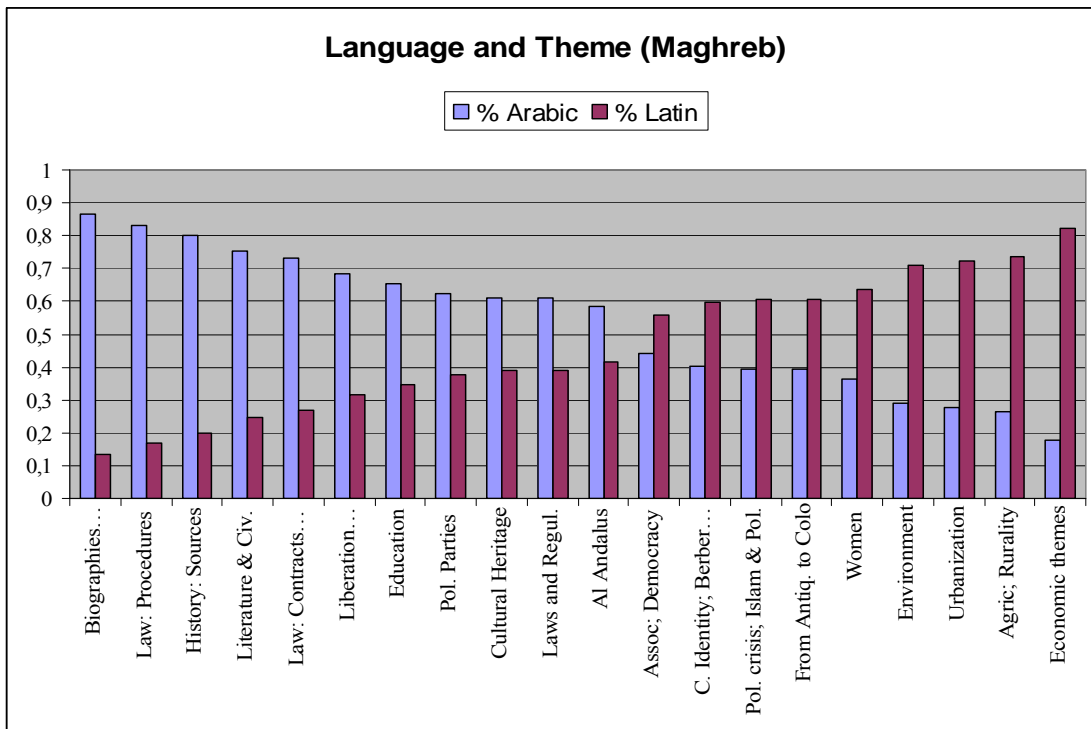
⁴ They are products of an Arab foundation for translation which is based in Beirut. 9. Mermier, F., *Le livre et la ville. Beyrouth et l'édition arabe*. 2005, Arles: Sindbad/Actes Sud.



Literature, history and law are most active and valued – ahead of socio-anthropology and political sciences. There have been changes over time, and the hierarchy is not exactly the same in the three countries.

We also determined the set of themes comprising the corpus, statistically by classifying the keywords associated with each document. Twenty themes constitute the main corpus. Figure 5 correlates the choice of language with the themes. It shows a link between the themes and the targeted readers. European languages are generally used for themes encouraged by the global agenda, such as women, the environment, economic globalization, etc. and in those meeting the concerns of decision makers, such as urbanization, natural hazards, and enterprises and management. Those themes associated with law, cultural life, education and local history are mostly written in Arabic language. The choice of language – which is a very hot and ideological question in countries like Algeria – is also linked to certain disciplines for epistemological reasons. Nomothetical disciplines in search of general laws prefer a ‘global’ language as the vernacular, as they need to be compared and submitted to foreign comment.

Figure . 5. Theme and language choice in Maghreb countries



Themes appear gradually but last long. Table 10 provides an insight into their emergence and decline. Over time, various empirical fields have appeared and later declined – agriculture and rural life appeared in the early 1980s, urban problems were at their apex from 1985-1990, women in society was favoured in the period 1990-1995. Since 2000, new themes, such as cultural heritage, identity, law, political life and civilization – which includes arts, literature and language studies – have emerged. Cultural heritage and identity have since replaced development, which prevailed in the 1980s, as a central preoccupation.

Table. 10. Emergence and decline of the main social sciences themes in the Maghreb

Themes	1980_1986	1987_1992	1993_1998	1999_2004
Procedure, judicial precedents	-8,5	-8,8	-6,4	18,7
Contracts, Corporate Law	-2,4	0	-4	5,1
Literature ; Arts and Civilization ; Poetry	-5,5	-3	-6,4	12
Laws and regulations	-2	-5	0	5
New themes**	-8	-3	0	9
Politics, political parties	-4,5	-3,2	0	7,4
Political crisis, Islam in politics	-8,7	-2,9	3,5	5
Languages, Berber, Cultural Identity	-7,9	-4,6	0	7,9
Cultural Heritage	-6	0	-3	7
Environment, Climate	-6	0	8	-4
Sources, Historiography	-3	0	5	0
Women, Women's condition	-3,5	3,4	3,4	-3,3
Economics (Management, Policy)	0	5,2	11	-14,2
Urbanization	0	4,2	0	-3,3
Al_Andalus	0	6,6	0	-4,4
Antiquity, Modern times, Colonization	5,6	7,3	-5,1	-14,4
Liberation movement, Nationalism	5,7	0	0	-4,6
Agriculture	7,2	3,6	5,3	-12,7
Educational Methods and Policies	0	0	0	2,4
Biographies, Cultural life	0	0	0	0

Notes : Figures in the table represent a v-test of a theme which measures whether the theme is over-represented ($v > 0$), under-represented ($v < 0$) or normally represented ($v = 0$) in the corpus during a period of time. In each theme, the following is highlighted: its **emergence** in yellow, (v becomes > 0), its **apex** in green, (v is maximum), its **slowdown** in orange (v decreases) and its **regression** in red.

** *New themes:* Associations and Democracy; Local development; Communication and Media; Human rights.

Inquiry into these research topics shows that the set of themes is greatly influenced by local concerns. The research topics of local social scientists do not necessarily match those of foreign specialists working on these same countries [3]. There is clearly a strong production which goes unnoticed outside these countries, mostly because it is published in an Arabic language and rarely translated; the production is also independent of the global agenda. The bulk of the output is very self-centred – perhaps too much so – with hyper-empirical approaches and little comparative analysis. The academic scene is predominantly national, and partly extrovert – more open to the region than to the world. This production is very concentrated and the productivity of the researchers is roughly equal to that of their colleagues in the natural sciences, which could be compared with regard to Morocco.

The Middle East and the Gulf

We could not find the equivalent of the database we used for the Maghreb in any other sub-regions. There are several monographs indicating sociology, law, history and other disciplines'

activities in Egypt, Jordan, Lebanon, and Syria, notably those used as background papers for the ESTIME project. However, they need to be synthesized. Nevertheless, everybody knows brilliant scholars originating from these regions who made an international career – a number of whom had studied in the USA and live there now. Many others are working and have a high reputation in their region, but are less well known because they mostly write in Arabic and their work is not really translated. Publishers are active in Lebanon, Egypt and currently in Kuwait. Newspapers with a high circulation as well as other media have high-quality cultural pages. If terms of the proportion of students enrolled and academics employed, the vogue disciplines are the arts and humanities, followed by commerce and business administration. Law is important – especially if ‘sharia’ is added, as this means studying civil law as well as in religion. Social sciences are not of equal interest to the different countries: they are high enough in the Middle East, but low in the Gulf countries. Scattered information shows that, in contrast to the Maghreb, human and social sciences academics are twice less productive than their colleagues in the natural and engineering sciences [Al Shimaly (2007) for Kuwait]. While there are multiple professional associations for the natural sciences and medicine in most of the Gulf and Middle Eastern countries, there are almost none for the human and social sciences [Al Shimaly (2007)]. This does not mean that there are no exceptions: there are committed individuals, brilliant personalities and – especially in Lebanon and Egypt – intellectual milieus and a few vibrant circles.

Challenges, initiatives and prospects

Arab countries have certainly built a sizeable potential for research – which remains to be widely exploited and mobilized. Nevertheless, the current situation is challenging, especially for the human and social sciences. Their relevance or the knowledge economy and perhaps even for a knowledge society is at stake, which is the new ideal of a future post-oil era.

The quality of higher education

First of all, there is currently a public debate on the quality of higher education. Even more than other disciplines such as the natural and engineering sciences, the human and social sciences are subject to criticism: they are the most deeply embedded within universities, as are their goals, which emphasize teaching; their mandarin-style hierarchies; their learning by heart methods; and their posture, which is ‘enclosed’ in their region, the Arabic language, local problematics and auto references. These were, of course, the result of the government-determined programmes to make them acceptable and relevant to the national needs.

The quality of higher education in countries such as Morocco, Tunisia and Jordan and in the few universities that are research havens, is considered fair; however, most institutions now face having to adapt regarding the command of foreign languages, the use of recent references, more research on new topics, and advanced students showing more initiative. The alternative is subversion by the imported foreign universities as those found in the Gulf countries. This could, of course, have a positive effect on would-be researchers’ quality, as they are believed to be in dire need of suitable standards, networks and openness. It is, however, unlikely that the entire social science research programme can be changed. After all, are authoritarian regimes prepared to absorb and cope with the results of more thoughtful and rigorous social sciences dealing with the problems of the day in times when security considerations are given high priority?

Funding and organizing research

Another issue concerns the organization of research. The human and social sciences are very atomized by individual projects, personal susceptibilities, the almost total lack of associations and scientific community bodies. This translates into a lack of a critical mass of scientists available to conduct ambitious projects, even in a single country's fields of recognized excellence. There are few collaborations between different universities and within large teams, nor are there long networks. Cooperation and the fair division of work are rare mechanisms, even though examples can be quoted, for example, the recent sociology survey of young Moroccan's values.

In order to make the best of the existing capacities, a double change is needed. The first from the state: incentives for more active researchers, organization into laboratories, and better funding associated with large relevant programmes. The second from the researchers themselves: less personal pride, better assessment of collective work, and efforts made to build and submit to a scientific community.

A national science base or the territorializing of capacities?

One of the main challenges is linked to the wave of privatization and internationalization that has developed, notably in West Asia and most radically in the Middle East. Egypt and the Maghreb countries, which have a centralized governance, made the choice to first develop a solid national science base. It is up to these countries to undertake reforms if the result does not suit them. Some observers have underlined that “a real research activity is linked to the emergence of a scientific community, and results from a professional rather than an institutional development” [12]).

The Middle Eastern countries, and certainly the Gulf ones, are taking a different path. For a decade they have encouraged the development of private universities, which are supposed to absorb excess students and correct the shortcomings of public establishments. The latter are supposed to be ‘converted’ or ‘subverted’ by their private competitors. The Gulf countries are an extreme case. Their strategy seems not to be the building of a national science base, but at locating the best foreign capabilities and innovative practices on their territory. This is primarily aimed at the natural and engineering sciences, but also includes the human and social sciences, as suggested by the ‘import’ of the French Sorbonne and High Schools for Business or for Geopolitical Analysis.

Research is part of the deal and – at least in natural and medical sciences – there have been sizeable results in terms of international bibliographic databases in some countries such as Qatar. According to certain observers, this ‘Singaporean strategy’ could well succeed and be a guide towards an ‘Arab Renaissance’. According to others, the strategy just reflects the further intrusion of the West and its norms into the Arab world. However, the prospect is ambiguous and “requires cautious interpretation and forecasting on the geopolitical level” [Romani] (see Box 7).

The main question is whether this new strategy is a sustainable one or a purely commercial – and rather financial – one. New campuses are designed to compete with the best old universities in the region such as the AUB and others. These universities are supposed to attract rich and brilliant students. Their assessment is, however, much more in terms of profitability than of substantial contribution to education and knowledge. If one takes the new trend seriously, this nevertheless means huge contradictions and uncertainties for the local social sciences.

Box 7. Range of the Gulf Countries' Academic Revolution

“One important pattern characterizing the current academic boom is a dual process of *privatization* amidst *globalization*. Two-thirds (around 70) of the new universities founded in the Arab Middle East since 1993 are private, and more and more (at least 50) of them are branches of Western, mostly American, universities. ...

Academic expansion in the Gulf over the last decade reflects ambitions beyond the region. It is taking place in the wider context of the opening of a globalized market of higher education throughout the world, of which GCC countries intend to claim more than their share. And by founding world-class, top-ranking universities, Gulf political leaders seek not just to close the ‘development gap’ in their countries; they explicitly intend to reverse the balance of knowledge between the West and the Middle East. Their aim is to change the Arab academe from a site for knowledge *reception* to one of knowledge *production*.”

Source : Romani, V., The Politics of Higher Education in the Middle East [8].

Which role should research play?

One could finally say that all types of research bodies are present in the Arab world. Social research is blossoming, especially in the Maghreb, but it lacks a specific and approved role within the society as a whole. In other disciplines, usually in engineering, biomedical research and various exact sciences, research does have some support. This is particularly true of countries preparing for a knowledge economy and in which innovation is central rather than the exploitation of natural resources. But the usefulness of social sciences is usually a debatable point in the region: it appears as a cultural activity, museum, an ornament for its local sponsors, or as a pragmatic social engineering activity with commercial opportunities sponsored by foreign funding agencies.

Thus, there is a growing imbalance between different types of research, whether public or not and whether adopting a reflexive or an instrumental approach. Recently, there has been a trend towards products targeting non-academic audiences, whether local or foreign. Instrumental studies, empirical field research, action research, all of which interact directly with a society are favoured. Academic essays, theorization and methodological progress, as well as reflexive analysis seem to have lost ground progressively. There should be and there are indeed tensions between these different types of activities in all countries. Specific to the Arab countries is that these tensions are not regulated inside the scientific communities but rather by the government or the market through external regulations.

3. The Prospects?

What are the prospects? Prediction is risky. Much depends on the attitude of the state and on the specific scientific circles. Interestingly enough, several governments have shown a sudden interest in social sciences under the pressure of internal political uncertainties: a number of young academics have been recruited and an evaluation has been launched, which are both proof of attention and justify serious funding. Morocco and Algeria are examples, while Jordan, Lebanon and Egypt are less determined. The Gulf countries, which some observers consider the seat of a possible ‘Arab Renaissance’, pay growing attention to the arts and the humanities and to specific social sciences as components of the future knowledge society. This new interest may – for political reasons – survive the economic crisis in the Maghreb and Gulf countries if they are supported by the state, although many market-oriented projects, such as those in Dubai are vulnerable to international economic conjuncture. [8]

For this support to bear fruit, scientists probably first need to agree to a more formal and collective organization, with labelled and assessed units or laboratories like those established or planned in the Maghreb, with common research projects that are far-reaching and linked to additional funding, as in some private centres, and with a keen sense of professional standards and responsibilities.

However, if the social sciences are to gain esteem and subject recognized abilities to sound critique and suggestions, they also have to become less atomized and less dependent on foreign influences. They need to reinforce and consolidate their self-regulated scientific communities, to monitor the ethos of the profession, restore interest in theory and rigorous methodology and, above all, ensure a vivid public scientific debate and add to it.

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BOX : The King Abdul-Aziz Al Saoud Foundation for Islamic Studies and Human Sciences – Casablanca

King Abdul-Aziz Al Saoud Foundation for Islamic Studies and Human Science is a documentation, scientific and cultural institution inaugurated in 1985. It saw the light of day thanks to the Custodian of the Two Holy Mosques, King Abdullah Ibn Abdul-Aziz Al Saoud, who is supporting it up to now. [...] The Foundation is established as a Moroccan law partnership. It is a corporate body of public utility. It is managed by a board of directors made up of personalities belonging to diverse sectors.

The rationale behind constituting this institution is stimulating the scientific research in social sciences, culture and development of expertise in the fields of documentation and information. For so doing, it has been constituting, as time goes on, an efficient team and developing its action in three directions:

– Setting up a research library which encompasses, up to October, 2008, more than 620.000 volumes of documents. This library is home to one of the richest collections pertaining to Maghrebian Studies, let alone Arab Muslim Studies and theoretical references. The working languages are: Arabic (39%), French (39%), English (16%) and Spanish (5%). This collection is the outcome of an acquisition policy increasingly oriented towards a specialization in Maghrebian Studies. The library stores, in addition to studies in human and social sciences, the Maghrebian literary works. However, it stores neither textbooks nor publications for children.

– Establishing a documentation and bibliographical information centre able to mobilize the Foundation's bibliographical databases: Ibn Rushd, comprising more than 100.000 entries relative to Maghrebian Studies, and Mawsu'a. These two databases are available on the Foundation's online catalogue at: www.fondation.org.ma. Moreover, this centre enables access to international databases, namely the databases of the main national libraries, by the means of Drums or Internet. [...] In order to acquaint its public with the collections of its library, the Foundation publishes thematic bibliographies in hardcopy and softcopy and catalogues. It also undertakes to digitize the periodicals' tables of contents which are downloadable from the Foundation's electronic portal at: http://www.fondation.org.ma/fondation_ang/revues.html

– Establishing a space for cultural events, scientific debates and research where academics, researchers, economic and social actors can discuss diverse strategic topics/ [...] Furthermore, it has recently launched a project of publishing PhD theses as well as a project of collaboration with the University which consists in hosting research workshops and publishing their works

Since its constitution, the Foundation has been aware of the importance of computerization and the contribution of the new information and communication technologies to the rationalization and optimization of the biblioeconomic activity. The experience gained so far, and the acquisition of a new information system, enables the Foundation to embark on new projects: the targeted diffusion of bibliographical information, Net development, the digitization of valuable documents, the quality stake aiming at bettering information on the Maghreb and the continuous improvement of the services provided to readers and partners. [...]

For more details and access to the numerous services on line, please visit the Foundation's website: <http://www.fondation.org.ma/>

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