

PART II

Section two: the state of knowledge in Arab countries

Chapters 2 - 5 constitute an evaluation of the state of knowledge in the Arab world. Chapter 2 focuses on the dissemination of knowledge in Arab countries while Chapter 3 investigates knowledge production. Chapter 4 represents an attempt to measure the status of Arab knowledge in a comparative perspective and Chapter 5 assesses the organizational setting for knowledge acquisition in the region.



Knowledge dissemination in Arab countries

This chapter attempts to describe and analyse the process of knowledge dissemination in Arab countries. It considers the role and state of Arab education, and its most crucial challenge, quality. It reviews the main features of print and broadcast media forms, the extent of public access to them and the impact of their political and societal surroundings on their independence and effectiveness as conductors and sources of knowledge. The chapter further analyses the emergence and early achievements of modern media forms based on ICT, new technology and new patterns of public expression. It concludes with an overview of the state of translation in the region.

KNOWLEDGE DISSEMINATION AND KNOWLEDGE CAPITAL

Knowledge dissemination is about more than the mere transfer of information and data, although such transfer, through multiple channels, should be an integral part of the process. The real challenge is how to turn this information into a strong reserve of knowledge that will impact the production of new knowledge and transform it into knowledge capital that contributes to human development. Knowledge is disseminated chiefly through socialisation, the different stages of education and by the mass media and the translation industry. This chapter looks at the characteristics, achievements and limitations of the main channels for disseminating knowledge in the Arab world. Like other investigations in this field, this attempt is compromised by an acute lack of accurate and reliable data, and thus conclusions regarding the situation in Arab countries are inevitably subject to this limitation.

SOCIALISATION

Socialisation is the process by which the individual acquires knowledge, skills, attitudes and values; and establishes motives, principles and patterns that affect her or his adaptation to the natural, social and cultural environment. Although socialisation is a learning process that extends throughout the different stages of the life of an individual, childhood is the most sensitive and impressionable stage. Despite the fact that children are the core and crux of this process, they are rarely regarded as effective and influential individuals. Nonetheless, this traditional vision has been changing gradually since the early 1980s as a result of social, psychological and anthropological studies that have asserted the importance of the child's experience, and the way (s) he learns and acquires knowledge throughout the socialisation process.

There are three styles of child rearing; authoritarian, permissive and firm. Research shows that children who have been brought up by firm parents demonstrate greater psychological and social adaptation. Also, they achieve better academic results and have higher self-esteem (Buri, 1998).

Studies also indicate that the most common style of child rearing within the Arab family is the authoritarian accompanied by the over-protective. This adversely affects children's independence, self-confidence and social efficiency, and leads to an increase in passive attitudes and the deterioration of decision-making skills, not only with respect to behaviour, but also to how the child thinks. For, starting in early childhood, the child becomes accustomed to suppressing her or his inquisitive and exploratory tendencies and sense of initiative. (al-Sweigh, *in Arabic*, background paper for the report)

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EDUCATION

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The first AHDR acknowledged that Arab countries had made great strides in the quantitative expansion of education in the latter half of the 20th century. It however also observed that the general condition of education is still unfavourable compared to the achievements of other countries, both developing and developed. The report concluded that Arab education falls far short of human development needs.

It is a fact that the quantitative expansion of Arab education remains incomplete. High rates of illiteracy, especially among women, persist. Children continue to be denied their basic right to elementary education. Higher education is characterised by decreasing enrolment rates compared to developed countries, and public expenditure on education has declined since 1985.

However, as the previous Report also emphasised, the most serious problem facing Arab education is its deteriorating quality (AHDR, 2002, 47-51). The emphasis here, therefore, will be laid on that crucial aspect of education and its impact on knowledge.

The quality of education

The most important challenge in the educational arena is the decline in quality, which undercuts a basic goal of human development, namely to enhance the quality of people's lives and enrich the capabilities of societies. Allocating insufficient resources to education can certainly reduce its quality. Yet there are other elements that also affect educational quality, chief among which are education policies, teachers' and educators' working condi-

tions, curricula and educational methodologies.

The quality of pre-school education

Early education, centred on the child and the family, is an investment that has long-term economic and social returns. The child's brain in early childhood is known to be flexible and much more sensitive to its surroundings than that of older children. This brain develops according to the experiences it encounters in its external environment. The sensuous parts of the brain reach the peak of their growth when the surrounding environment is rich in stimulants, notably for the senses of touch, sight, hearing, smell and taste. Developing the capabilities and improving the intellectual capacities of the child requires close attention to the pedagogic methods adopted within the family and inside nurseries and kindergartens. Naturally, this should go hand in hand with proper health care and decent livelihoods in a society where the values of freedom and justice prevail.

Despite major efforts to improve pre-school education in some Arab countries, the quality of education provided in many kindergartens in the region does not fulfil the requirements for advancing and developing children's capabilities in order to help socialise a creative and innovative generation. In most cases, these kindergartens focus mainly on teaching children reading and writing, without paying enough attention to their integrated growth. This can be achieved by providing sufficient and effective educational materials and instruments, qualified teachers and educators, as well as an environment conducive to sharpening the child's senses and improving his or her physical, emotional, social and intellectual abilities. A positive pre-school environment is characterised by some essential qualities for children's healthy growth, such as opportunities for play and access to a free space that allows them to move, express themselves, choose, take decisions and enhance their self-respect, which leads to self-confidence. A healthy environment is also characterised by an approach to learning that is interactive, not didactic, i.e., the child should interact with his or her surroundings, and with other children and adults as well.

BOX 2.1

Abdul Aziz Al-Muqaleh – Illiteracy: An Obstacle to Knowledge and Modernisation

Modern Arab history shows that illiteracy has invariably helped to keep traditional anti-development regimes in power. For instance, in Yemen during the 1940s a regressive regime was able to make ignorant parents invite rulers to kill their enlightened children who were accused of sorcery and selling Islam to foreigners. I do not think that the situation has changed a lot in the early 21st century – and not only in Yemen, but in all Arab countries, with one or two exceptions. Any extremist bigot can still set tens of

thousands of illiterate people against any enlightened person, prevent the eradication of illiteracy and make it a strong bulwark against all projects to modernize education and culture.

There is no hope of bringing about a healthy educational and democratic environment conducive to knowledge in countries where illiteracy is allowed to gain near-absolute control and to destroy every serious attempt to escape from the tunnel of alienation in the modern age.

In order to evaluate the level of education, it is necessary to assess teachers' abilities to interact with, motivate, and encourage students to innovate and think critically and creatively. Information published on these qualifications and abilities is scarce and limited to personal observations and general impressions. Undoubtedly, there are a large number of experienced and highly qualified teachers who play a vital role in making the educational process succeed.

However, there are some factors in many Arab countries that adversely affect teachers' capabilities, such as low salaries, which force educators to take on other jobs that consume their energy and cut into the time they can devote to caring for their students. Other constraints are also significant, particularly a lack of facilities; poorly designed curricula; and the indifferent quality of teacher training. Most present-day educators have graduated from institutions that follow an approach to teaching based on rote learning, which is not especially conducive to critical thinking. Finally, many Arab countries face the problem of overcrowded classes. These factors limit the abilities and curtail the desire of teachers to interact creatively with their students.

Curricula and education methodologies

Typically, educational material is contained in the curriculum, which comprises a body of lessons that is ideally a synthesis of the best of what decision-makers and authors agree to be worthwhile and necessary for the learning process. In purely formal terms, curricula in most Arab countries do not appear to be greatly different from what many countries around the world are adopting.

During the last decade several Arab countries have embarked on educational reform programmes that concentrate particularly on revising and making modifications to the content of curricula and syllabi. When it comes to the sciences, content is not usually a controversial matter, save for some themes that are perceived to touch on religious beliefs such as the theory of evolution or on social taboos, such as sex education. But the humanities and social sciences that have a direct relevance to people's ideas and convictions are supervised or protected by the authorities in charge of de-

BOX 2.2

Morocco: conflicting signals on knowledge acquisition

Most Moroccan families cannot afford to send their children to kindergarten. Some of these families enroll their children at low-cost mosque schools, where they are taught reading, writing and religion by teachers who are not qualified to educate young children and to take care of them. Families, which cannot afford even this low-cost alternative, entrust their young children to the care of a family member, often an uneducated older brother, or leave them to play in the street if they are over 6 years old.

In 2000, school enrolment of girls was low, reaching an average rate of just 45% in the three educational stages.

Schools need much improvement, particularly in certain rural areas of Morocco. In the northern region of Tangiers-Tatouan, for instance, there are more than 45 students in each classroom on average. In respect of higher education, it is estimated that 40% of graduates remain unemployed. Moreover, 50% of university students drop out of university before completing their studies.

More encouraging statistics can be found in the rapid spread of "cyber-cafes", which increased from 500 in 1999 to 2500 in 2001, a 500% jump. Websites

also recorded a dramatic increase of 700% during the same period. Revenue from the services of communication companies tripled between 1997 and 2001, from 6 to 16 billion dirhams.

In order to deal with the problems of education, the 2000-2009 decade was declared as "The Education and Training Decade in Morocco". The state is called upon to give education at all levels its full support and attention. The plan for the decade requires the government to achieve set targets, e.g.:

- By September 2002, all children aged 6 years or more were to be enrolled in the nearest school.
- By September 2004, all children of age should be enrolled in the first year of kindergarten.
- By 2005, 80% of children enrolled in kindergartens should continue in school until they complete elementary education.

As a result, the rate of enrolment for 6 year olds increased from 37% in 1997-1998 to 91% in 2001-2002. The rate of enrolment of children aged 6-11 increased from 69% to 90% during the same period.

Source: Country report prepared for the Second Arab Human Development Report (AHDR2).

signing curricula and issuing schoolbooks. Consequently, such subjects usually laud past achievements and generally indulge in both self-praise and blame of others, with the aim of instilling loyalty, obedience and support for the regime in power. It is not unusual to find schoolbooks in many Arab countries with a picture of the ruler on the front page, even in the case of textbooks in neutral subjects such as science and mathematics.

Some researchers argue that the curricula taught in Arab countries seem to encourage submission, obedience, subordination and compliance, rather than free critical thinking. In many cases, the contents of these curricula do not stimulate students to criticise political or social axioms. Instead, they smother their independent tendencies and creativity (Munir Bashour, background paper for AHDR 2).

Generally speaking, the assigned curricula, starting from preliminary school or even before, embody a concept that views education as an industrial production process, where curricula and their content serve as

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moulds into which fresh minds are supposed to be poured.

There are various means for conveying information: lectures, seminars, workshops, collaborative work, laboratory work and many others. In Arab countries, however, lectures seem to dominate. Students can do little but memorise, recite and perfect rote learning. The most widely used instruments are school-books, notes, sheets or summaries. Communication in education is didactic, supported by set books containing indisputable texts in which knowledge is objectified so as to hold incontestable facts, and by an examination process that only tests memorisation and factual recall.

Education policies

Education policies in many Arab countries lack an integrated vision of the education process and its objectives. Furthermore, these policies are characterised by inconsistency and a lack of direction. Problems, such as those relating to the content of the curricula, forms of examination, evaluation of students, and foreign languages cannot be settled without formulating a well-defined vision of educational goals and necessities.

The policies governing foreign language education in Arab countries illustrate the absence of a well-defined vision for instituting mechanisms that would encourage mastery and dissemination of knowledge and science. Indeed, promoting and enhancing the Arabic language as the medium for acquiring and indigenising modern sciences is the surest way to achieve this goal. Giving importance to Arabic does not however entail neglecting foreign language acquisition: on the contrary it requires the pursuit of both tracks at the same time.

The state of foreign language teaching in Arab countries is an example of the absence of clear-cut education policies and reveals a complicated and confused situation. In reality, only one Arab country (Lebanon) has maintained, since its independence, the teaching of a foreign language starting from the first grade. In 1995, Lebanon permitted the teaching of mathematics and science in foreign languages in government schools. In the government schools of Arab North African countries, the foreign language (French) main-

tained its place despite many attempts at Arabisation. But French is not taught in public schools before the third grade in either Morocco or Tunisia, and not before the fourth in Algeria. Some other countries postponed learning a foreign language to the last two or three grades of primary education, as in the cases of Iraq and some Gulf countries. Recently, other countries, such as Egypt, Syria, Libya and Yemen have realized the importance of providing foreign language teaching as early as possible and are increasingly implementing this trend, where foreign languages are being integrated in the later stages of primary education instead of secondary education. In Jordan government schools have recently started teaching English commencing in the first grade.

Noteworthy in this context is a trend that emerged in Egypt: the establishment of public and private “multi-language schools” that charge relatively high tuition fees. The syllabi implemented incorporate two foreign languages instead of one, together with mathematics and science in a foreign language. The number of these schools has increased during recent years from 195 to 575. In addition, since 1980, a new type of foreign school has emerged, one under foreign supervision that teaches curricula not administered by Arab Ministries of Education. The result has been chaos in terms of the types of certificates received by students in the same country.

Measuring the quality of education

Evaluating the quality of education in the Arab world is extremely difficult owing to insufficient information and data. These difficulties are compounded by the complete absence of any standardised measurements for comparison among Arab countries on the one hand, and with the rest of the world on the other, particularly over time. The following are some features identified from studies conducted in this field of analysis.

Indicators of the quality of achievement in elementary education are available based on specialised studies conducted in some Arab countries including Oman, Egypt and Bahrain. These studies are of limited value as they have been neither designed nor conducted on a comparable basis and do not sup-

port comparative conclusions. However, their findings offer significant insights into the quality of elementary education in the Arab countries where the studies were conducted.

In Oman, so far, four studies have been conducted to evaluate educational achievement in the fourth, sixth, eighth, and ninth grades in Arabic, mathematics, science and life skills. Two findings about these grades stand out: (Nader Fergany, in Arabic, 2002)

- Grade averages in all subjects are below excellence, or the so-called 90/90 rule (which stipulates that at least 90% of the students should obtain at least 90% in a standard examination that measures how far the skills taught are acquired).
- *Girls* outperform boys in all subjects.

In Egypt, a wide field survey revealed that mastery of the basic skills of reading and writing, and mathematics, which is supposed to be acquired through elementary education, is low, about 40% and 30% respectively.

In Bahrain, an evaluation of educational outcomes at the end of the first stage of primary education (Ministry of Education, Bahrain and Almishkat Centre for Research, *in Arabic*, 2001), showed a low level of student achievement reflected in a lack of mastery of essential skills. The grade average in Arabic hit 43.7%, with a standard deviation of 24.2 on a scale of 0-100. In mathematics, the grade average was 44.9% with a 22.8 standard deviation on the same scale. In neither subject does student performance remotely approach mastery.

Student scores in the two subjects cover the whole range of grades, which indicates that examinations could indeed distinguish the different achievement levels on the one hand. On the other hand, frequency distributions of the scores established the common bell curve of examination grades in a large sample (the further away from the average the grade is, the smaller the percentage of students becomes).

However, grade frequency distribution that deviates from the standard distribution is also important. For example, compared to the distribution of mathematics grades, the distribution in Arabic shows a higher frequency in the lower grades, and less frequency in the middle. These findings demonstrate that the students' grades in Arabic tend to be lower

than in mathematics.

When it comes to comparative studies with other countries of the world, only one Arab country, Kuwait, participated in the "Third International Mathematics and Science Study, 1995" (Trends in International Mathematics and Science Study, 1996). It included students who were at the end of elementary education from 41 countries in the world (class 8). Kuwait's participation is highly commendable and a good example for other Arab countries to follow, especially since it took place a few years after the invasion of the country and the consequent physical and emotional impact on its education system.

Yet Kuwait is an exception for other reasons. It has sufficient financial resources as well as a small population. It spends generously on education and has made outstanding progress in its quantitative expansion. Nevertheless, Kuwaiti students came at the bottom of the list and ranked 39th in terms of achievement in mathematics and science, with grade averages of 392 and 430 respectively. This is 121 points in mathematics and 86 in science below the world averages (513 and 516). Compared to Singapore, which was ranked first, with a grade average of 643 and 607 respectively, Kuwaiti students' achievement fell below this average by 251 points in mathematics and 177 in science.

Noticeably, unlike those countries topping the list, Kuwaiti student achievement in mathematics was lower than in science, and more so compared to the world average. It is a well-established fact that mathematics is a crucial basis of knowledge for the sciences of the future. It is worth noting that, in this evaluation, countries such as Bulgaria, Thailand, Spain and Iran ranked above Kuwait. The example points to an important conclusion: ultimately, the quality of education does not depend on the availability of resources or on quantitative factors but rather on other characteristics closely related to the organisation of the educational process and the means of delivery and evaluation.

Three Arab countries (Jordan, Tunisia and Morocco) took part in the Trends in Mathematics, and Science Study (TIMSS, 1999). In mathematics, Tunisia was ranked 29th with 448 points. Jordan was ranked 32nd

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with 428 points. Morocco came 37th with 337 points. It should be noted that Singapore was ranked first with 604 points while South Africa was last with 275 points. In Science, Jordan was ranked 30th with 450 points, Tunisia 34th with 430 points and Morocco 37th with 323 points. Taiwan topped the science list with 564 points while South Africa was ranked last with 243 points.

The quality of higher education

Although higher education institutions have existed in the Arab world for more than ten centuries (most of which were established in a major mosque such as Al-Azhar, Al-Qairawan and Al-Zaitonah, or with funding from charities or *waqf*), modern Arab colleges and universities are young. Three quarters of Arab universities were established in the last 25 years of the 20th century. Fifty-seven per cent of them are no more than 15 years old. This observation is important: higher education institutions, universities in particular, take a long time to consolidate their institutional structure, and to perfect their role in the dissemination and production of knowledge (Nader Fergany, *in Arabic*, 1998b, 18-19).

The quality of education provided in higher education institutions in Arab countries is affected by many factors, chief among which is the lack of a clear vision, and, as noted earlier, the absence of well-designed policies regulating the educational process. Higher education, particularly in its inception, faced resistance from several quarters. The pi-

oneer modern universities were established through the efforts of civil society and the support of nationalist forces with dreams of progress and prosperity. These endeavours were affected from the very beginning by the colonial presence in most Arab countries at the time. This period witnessed conflicting intentions and competing interests that led to a rupture in the original course taken. The generation of the renaissance strived to institutionalise the basis for academic research in Arab countries. Some of their attempts succeeded, but were not sustained.

One of the main features of many universities in the Arab world is their lack of autonomy, i.e., they fall under the direct control of the ruling regime. Nevertheless, universities are often the arenas for political and ideological conflict, the more so because of restrictions imposed on political participation in general and the promotion of political currents that owe allegiance to the regime. These contextual features have adverse effects on the degree of freedom allowed for education and research.

This lack of autonomy has resulted in a situation where universities are run according to the requirements of the governing political logic, and not a plan or a wise educational policy. Some universities, for example, are over-crowded on account of the uncalculated increase in enrolment rates, simply because the announcement of enrolment numbers in universities has become a political gesture to appease society.

The quality of higher education is also influenced by an ongoing decline in expenditure, reflected in inadequate facilities for students and faculty. Quantitative expansion in higher education came at the expense of quality. University libraries are in a sorry state, laboratories are old and cannot accommodate the increasing numbers of students, and classes are over-crowded, thus creating a wide distance between students and teachers. Moreover, faculty members in many Arab universities earn meagre salaries, and therefore cannot devote themselves fully to teaching or research.

The quality of computer science education in Arab universities

The UNDP Regional Bureau for Arab States is

BOX 2.3

The “Trends in International Mathematics and Science Study (TIMSS)”

In order to address deficiencies in measuring the quality of education, the UNDP Regional Bureau for Arab States is conducting a project for “Evaluating Educational Quality in the Basic and Middle Stages in Mathematics and Science in the Arab World”. The project sponsors the participation of five Arab countries in TIMSS 2003, in which 54 other countries are taking part, including five other Arab countries. The International Association for the Evaluation of Educational Achievement conducts this study impartially. The study was previously conducted in 1995 and 1999. The project will collect general data on curricula, classroom instruction, student achievement and teachers’ performance in a manner that allows for

comparisons of findings with international standards. It will set a standardised scale for ranking countries based on international criteria. The study is expected to give the participating countries the opportunity to measure achievement in mathematics and science through the examination of prevailing trends in primary schools (fourth grade) and middle schools (eighth grade). By the end of the project, participating countries will receive a report benchmarking the performance of their national plans and pedagogical policies, as well as of the schools taking part, against international standards. They will also receive internationally comparable results on students’ performance in mathematics and science, and general reference data.

sponsoring a project to improve the quality of university education in Arab countries, which includes a component concerned with evaluating the quality of education in some vitally important scientific disciplines. The project has completed an evaluation of the quality of computer science education in Arab universities. Sixteen universities - 12 public and 4 private - in 12 Arab states, namely: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Palestine, Sudan, Syria, the United Arab Emirates and Yemen participated.

The evaluation of computer science education has been completed for all participating universities except Kuwait University which withdrew just before the external assessment started.

The evaluation (which is conducted in three stages: training, self-evaluation and external evaluation by Arab and international evaluators) is based on 5 major criteria for measuring performance, namely: academic standards; teaching and learning; student progression; learning resources; and quality assurance and enhancement¹, in addition to 11 other detailed criteria.

The project revealed important results concerning the academic standards of programmes. While all participating programmes - except one - achieved "approval", i.e., confidence in the academic level of the programme, that approval was in the category of "approved/satisfactory" and no programme had an academic level high enough to earn "approved with commendation", i.e., the level of distinction by international standards.

Reports pointed to a number of issues that require redress with respect to all the components of academic standards, i.e., curricula and prescribed materials, methods of student evaluation and the students' level of achievement. For instance, a comparison of the content of the curricula evaluated with that of the

BOX 2.4

Use of the creative teaching method in Arab medical schools

The creative teaching method (teaching through problem-solving) is one of the most important methods of teaching medicine of the past 25 years. It started at the School of Medicine of McMaster University of Canada in 1976 and has, since then, been adopted by many medical schools throughout the world as a teaching strategy and school curriculum.

The creative method is basically a teaching strategy characterized by the use of medical problems as a framework for teaching students problem-solving skills and proactive learning. In this method, the teaching process revolves around the student, not the teacher, as is the case in the traditional method. The student himself is responsible for his/her learning, which -it is believed- is a preparation for lifelong learning and self-development. Proactive self-learning removes the student from teaching methods based on rote learning and the passive reception of knowledge, thereby increasing his/her ability to understand and absorb in-depth learning. This teaching method also leads to the student's acquisition of important skills, such as the ability to communicate well and to work as a team member in addition to the ability to analyze and use the scientific method in solv-

Source: Arabian Gulf University, Bahrain.

ing health problems in their different organic, social and psychological perspectives. In this method, both student and teacher find the teaching process interesting. The student's role is to analyze, research and derive information and solutions, while the teacher's role differs from the traditional role of merely dispensing information. The teacher's new role is to stimulate the learning process by motivating students and pushing them to think by posing questions and general concepts.

There are three medical schools in the Arab world, which play a pioneering role in using this teaching strategy, namely: Al-Jazeera University in Wad Madani, Sudan; The Suez Canal University in Ismaeliyah, Egypt; and The Arabian Gulf University in Bahrain. All three started at approximately the same time (1979-1982) and continue to adopt this teaching philosophy with continuous development of curricula. These three schools act as a stimulus to the development of medical education in the Arab region through their Centres for the Development of Medical Education, which have trained many faculty members in various Arab countries.

international test in computer science, as determined by the American ETS², indicated an overall compatibility exceeding 70% in only eight universities. In terms of complete compatibility with each one of the five main parts of the international test, the majority of the universities' curricula reflected over 70% compatibility only in the two traditional subject areas of programming fundamentals and software systems. Just one-third of the participating universities had curricula judged compatible with the other three subject areas (computer organization and architecture, theory of computer science and computational mathematics, and special subjects).

¹**Academic Standards.** This major criterion reflects the confidence of evaluators in three areas: curriculum design and the level of prescribed material; accuracy and effectiveness of student evaluation methods; and actual student achievements.

Methods of teaching and learning. This represents the result of evaluation of the methods used in teaching and learning, in terms of diversity, efficiency and relevance to the programme goals.

Student Progression. This depends on the efficiency of the systems and the arrangements used to guide and support student advancement through the school years.

Learning Resources. This depends on the availability and efficiency of human and financial resources needed for learning, such as the faculty, libraries, laboratories and communications. The latter 3 criteria come under a more comprehensive criterion, namely, "learning opportunities available", although each one is evaluated separately.

Quality assurance and enhancement. This depends on the efficiency and effectiveness of the internal arrangements and systems regularly available to supervise the performance of the programme through the stages of its implementation and the ability of these systems to take the necessary measures for its correction and improvement.

²Educational Testing Services.

Private universities, generally, did better than public ones.

The evaluation indicates that private universities, generally, did better than public ones. At the university level, the overall quality indicator value varied from 42% to 91%, an average of nearly 60%. A majority of the participating 15 universities (eight out of 15) were below average (Figure 2-1).

According to the applicable criteria, the evaluation concludes that the overall quality indicator is below the "pass" level for eight universities and close to the "good" level for three. Results indicate that the academic level of faculty members is a strong point in the region, while the sufficiency of available faculty

Figure 2.1
Distribution of universities participating in the evaluation according to the overall quality indicator

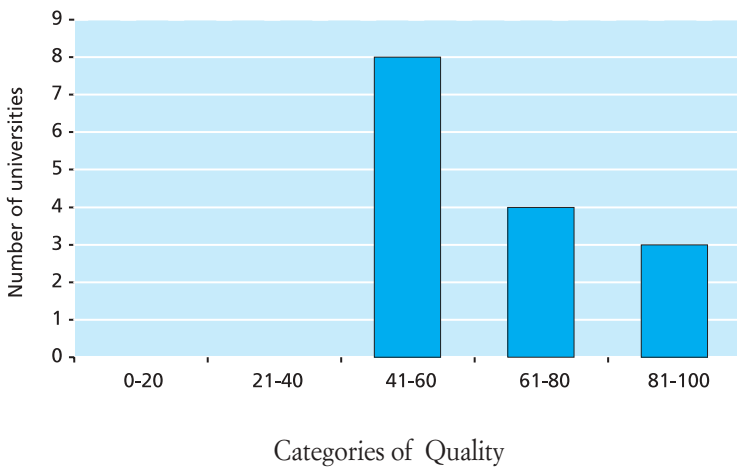
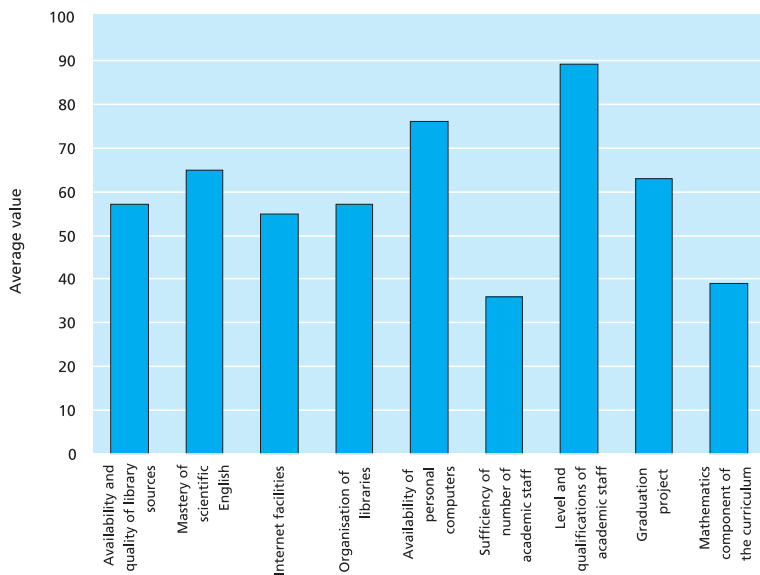


Figure 2.2
Detailed evaluation criteria: average values



members and the mathematics component in the curriculum represent weak points, which deserve attention, figure 2-2. It is not surprising, therefore, that well-qualified faculty members are nonetheless unable to diffuse and produce knowledge efficiently on account of their small numbers, compared to students, and the meagre resources available to them.

The evaluation concludes by proposing six areas as strategic priorities for the development of computer science programmes in the region, through the concerted efforts of universities and with support from regional initiatives, projects and forums. These areas are: methodologies for the design and development of programmes and curricula; the role of official accreditation organisations; the development of the size and capabilities of faculties; the development of the capabilities of libraries and communication systems, quality assurance and enhancement; and cooperation in the provision of traditional and electronic library sources, both Arabic and Arabicized. (The latter are needed for programmes that are taught in Arabic, which currently represent one-third of all programmes). The evaluation strongly recommends that the latter measure be taken up in parallel with enhancing the English language skills of students. The evaluation also calls for an expanded stage of investment and expenditure on higher education linked directly to goals and indicators of quality.

ARAB MASS MEDIA: CHARACTERISTICS, CONSTRAINTS AND NEW FORMS

Print and broadcast media are a vital means of transferring, and sometimes producing, knowledge. Since their inception, they have played a central role in knowledge dissemination, one that has undergone many changes as a result of scientific and technical development. In early times, printed materials were the most common medium, but had limited influence among communities with high rates of illiteracy. The advent of radio opened new horizons for knowledge dissemination, dispensing as it did with literacy as a requirement. Ultimately, television surpassed all conventional mass media in terms of impact.

What is more important, from the per-

spective of building human development and the knowledge society, is the relationship between the mass media, freedom and progress on the one side and increased demand and supply of knowledge on the other. The more freedom enjoyed by the media and the deeper their involvement in human development issues such as good governance, knowledge and women's empowerment, the stronger the societal incentives for creating a knowledge society become.

The global revolution in communication that is rapidly changing the world into a knowledge-based economy is transforming the means of knowledge dissemination. A contemporary society that does not rely on digital electronic networks to exchange information is unimaginable. For most major corporations, the information and communication industry has become an essential strategic support in ensuring dominance in international markets. In addition, satellite channels, especially in the Arab world, are now a source for the production and creation of values, symbols and taste.

Access to Media

Arab media forms and the means of accessing them, as well as their structure and content, exhibit several shortcomings that reduce their effectiveness in building a knowledge society. Among these, poor public access to information is a serious disability. This can be illustrated by comparing the ratio of the Arab population to the volume of information available to citizens, and the comparable ratio in other regions of the world.

In general, Arab countries have lower information media to population ratios (number of newspapers, radio and television sets per 1000 people) compared to the world average and the average of middle-income countries. Indeed, in this respect, the Arab world is not much better off than low-income countries in some areas.

The low number of newspapers per 1000 people, 53 newspapers in the Arab countries versus 285 in the developed countries, indicates two significant gaps. First, Arab citizens do not generate a large demand for newspapers due to low literacy rates and the high cost of newspapers compared to income. Second, the decline in the quality, independence, and

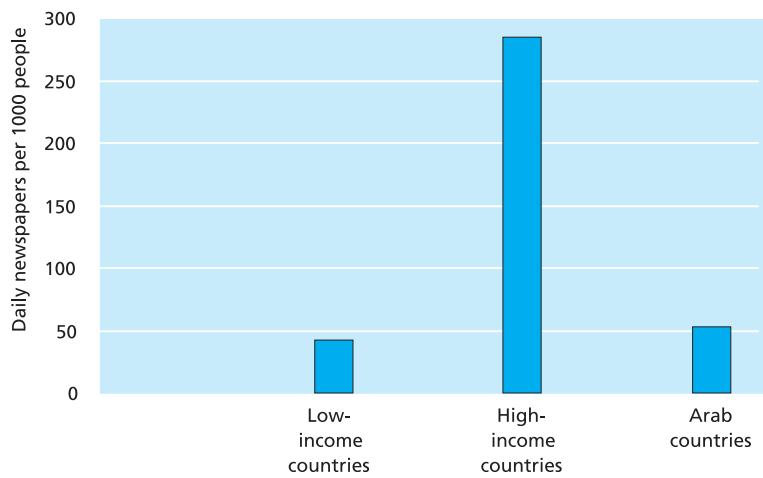
professionalism of Arab journalism make its products unattractive to broad categories of Arab readers.

In audio and visual media, the availability of radio and television sets in Arab countries as a whole is also below the average in middle-income countries and the world as a whole.

Access to information media varies from one Arab country to another. The number of newspapers per 1,000 people in Arab countries varies from one newspaper in Somalia to

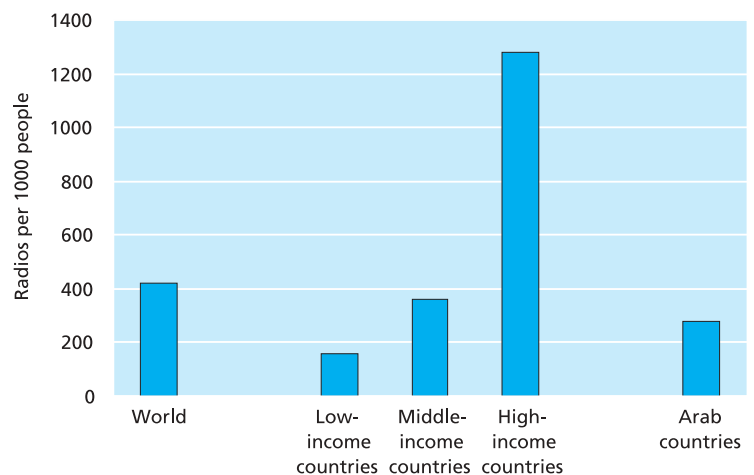
Arab countries have lower information media to population ratios compared to the world average.

Figure 2.3
Number of daily newspapers per 1000 people in Arab countries and other regions in the world, 1998



Source: World Bank, 2002.

Figure 2.4
Number of radio receivers per 1000 people in Arab countries and other regions in the world, 2000



Source: World Bank, 2002.

Official Arab satellite channels dominate the microwaves.

Media in most Arab countries lack multiple, independent sources of information.

374 newspapers in Kuwait, which exceeds the average in high-income countries. In contrast with the ratios of newspapers, Lebanon, which has the highest ratio when it comes to radio receivers (678 radio receivers per 1,000 people), is still well below the average of the high-income countries, which boast 1,280 radio receivers per 1,000 people. However, the ratios of television sets in Arab countries are closer to the ratios of newspapers. Oman, which has the highest ratio among Arab countries (563 television sets per 1,000 people), is close to the average of high-income countries (641 television sets per 1,000 people). But middle-income Arab countries have far fewer televisions than other middle-income countries in the world, where the average number is 275 television sets per 1,000 people. For instance, the number of televisions per 1,000 people does not exceed 67 sets in Syria, 198 in Tunisia, and 189 in Egypt.

The number of Arab satellite channels has also increased. There are now about 120 channels transmitted through Arabsat and Egypt's Nilesat. More than 70% of these channels are state enterprises and broadcast in Arabic. Few are in foreign languages. A handful of private sector satellite channels (about 15% of all channels) broadcast in Arabic from outside the region. A smaller number of private sector channels (10%) broadcast in Arabic from inside the region. In short, official Arab satellite

channels dominate the microwaves.

Resources available to the media

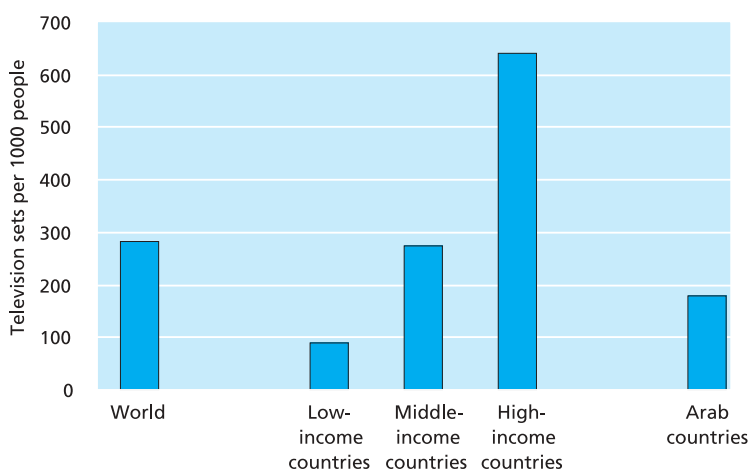
In varying degrees, Arab media personnel in most Arab countries encounter serious difficulties in gaining access to information, documents, data and official and unofficial news sources. Authorities often hinder their efforts citing official secrecy or national security. Many countries have a list of prohibited topics, such as the publication of court hearings, decrees or other matters that are said to touch on state security.

The media in most Arab countries lack multiple, independent sources of information. They principally depend on foreign information sources, especially Western news agencies. Although all Arab countries have their own news agencies, these agencies are state-owned and oriented to serve and promote state policies. Most of them also suffer from a lack of human, financial and technological resources and do not have correspondents outside their own countries. However, it may be worth mentioning here the exceptions that stand out among Arab news satellite channels. Some news satellites have succeeded in securing exclusive coverage of major events. The US-based CNN, for example, broadcast bulletins incorporating some of Al-Jazeera's coverage of the events of the war in Afghanistan. Other satellite channels have started building a network of correspondents outside the region, as in the cases of Abu Dhabi, MBC and Al-Arabia.

In general, Arab news channels lack specialised agencies that are able to cover thematic news topics, such as economics, sports, the environment, health, women and science, despite the significance and popularity of these topics amid the current information explosion.

Many Arab media institutions do not have information centres housing libraries or archives. The few archives that exist are old-fashioned and far behind the tremendous boom in information technology. Elsewhere in the world, such centres have become the backbone of in-depth media services, incorporating the flow of events and news within a general context, in order to help the audience understand developments and take an in-

Figure 2.5
Number of television sets per 1000 people
in Arab countries and other regions of the world, 2000



Source: World Bank, 2002.

formed stand on them.

A few capable information centres affiliated to some Arab media institutions continue to lead the field. For example, Egypt's al-Ahram Information Centre and other such centres, namely Annahar, Al Bayan, Al Khaleej, Al Hayat and Al Sharq Al Awsat keep up with successive developments in information technologies.

Typical content

The role played by the media in different Arab countries is very similar, albeit in varying degrees. A review of media programmes and research indicates that light entertainment is the most common offering, and is predominantly superficial, repetitive in content, and promotes values that encourage consumerism and a depreciation of work. This is particularly evident during *Ramadan*, which sees an increase in game shows feeding popular dreams of easy riches.

The Arab world has two cultural satellite channels (*Nileculture & Tanweer* -- Egypt) and two religious channels (*Almajd* and *Iqra'* -- Saudi Arabia), in addition to several educational channels in Saudi Arabia and Egypt, as well as a special information channel, the Nile Information Channel. The region also receives information services from some land-based television stations. Nonetheless, Arab television at large is not a vibrant force for knowledge or culture.

Some Arab news satellite channels, notably *Al-Arabia*, *Al-Jazeera*, and *Al Manar* have brought new content and form to the screen by airing free debates. They have thus spurred many Arab ground and satellite channels to provide more space for a diversity of voices and viewpoints and to allow more freedom of expression on political, social and cultural issues usually hidden behind a curtain of silence. These new talk shows, though at times sensational and vociferous, have nevertheless raised audience awareness, and could effect a radical change in the Arab public scene in the long run, opening it up to a culture of pluralism and dialogue.

News coverage

The Arab citizen's trust in media is affected –

to a great extent – by the level of news coverage in different mass media. Despite attempts to improve news services – due to competition between news satellite channels and to the extraordinary developments in communication technology that have turned the world into an electronic global village – a number of trends continue to hamper effective news coverage in Arab countries.

The main focus is still on official news and on senior political officials. Certain news values predominate, notably those favouring celebrities, idiosyncratic behaviour, humour and conflict. These values control the news that makes the front pages of newspapers, and occupy prime time on radio and television. More space and time is allocated to news of this kind than to other content. News of interest to the majority of the population, and which relates to their daily concerns or which could enrich their scientific and cultural knowledge, is scarce. Despite more openness that allows the media to address certain events, some news items are suppressed or dealt with in a manner not equal to their importance. News stories can sometimes be overstated or understated and on occasion present very different accounts of the same event, as the case of Arab media coverage of the fall of Baghdad shows.

News reports themselves tend to be narrative and descriptive, rather than investigative or analytic, with a concentration on immediate and partial events and facts. This is generally true of newspapers, radio bulletins and televised news. The news is often presented as a succession of isolated events, without in-depth explanatory coverage or any effort to place events in the general, social, economic and cultural context.

Needless to say, this type of news coverage does not help the ordinary citizen to comprehend events, increase his or her awareness and knowledge or develop a considered and informed point of view on national, regional and international issues.

Features of media messages

An analysis conducted on samples of content from Arab media in many Arab countries (Ali Al-Qarni, *Arab Media Discourse*, 1997), and dozens of studies conducted at country levels,

Some Arab news satellite channels, have brought new content and form to the screen by airing free debates.

News reports themselves tend to be narrative and descriptive, rather than investigative or analytic.

The harassment of the press under the law is an all-too-frequent violation of freedom of expression.

characterise the common features of Arab media messages, with some exceptions, as follows:

Authoritarian: Authority heavily controls the media discourse, imposing its own topics, directives, values, details, preferences, and timing.

Unidimensional: The discourse mostly excludes the other point of view, keeping it away from the public mind.

Official: The majority of Arab media institutions are incapable of taking action or reporting on events until they receive official direction, even if this entails ignoring an important event for a certain period of time. This of course discredits the media in the eyes of its audience.

Sacred: In many cases, a sacred aura is bestowed on the discourse, one that might not exist in other regions. This aura is not necessarily religious, but reflects the determination with which the objective of a particular discourse is being pushed.

One of the dilemmas facing Arab media is a continuous conflict between the impulse to “seek more freedoms and independence” and to “preserve the national interest”. This deliberately exaggerated conflict should not obscure the fact that the search for more freedoms is an indigenous, national and positive effort that ultimately helps achieve the national interest.

THE ENVIRONMENT SURROUNDING THE MASS MEDIA

Legalised restrictions on freedom of the press and freedom of expression in Arab countries curtail the independence and vitality of the mass media. In practice, the harassment of the press under the law is an all-too-frequent violation of freedom of expression, with newspapers sometimes facing closure, seizure, confiscation and sequestration. Furthermore, journalists are not given sufficient guarantees to perform their job and are liable to arrest, compulsory detention and severe penalties on charges related to publishing and the expression of critical opinions. Some journalists have been threatened with assassination, physical assault and intimidation. Reports issued by the Arab Journalists Federation as well as in-

ternational and national human rights organisations provide plentiful examples of such persecution.

Governments also impose restrictions on issuing newspapers and establishing new television channels. These restrictions sometimes take the form of impractical requirements, such as requiring large capital deposits as a condition for establishing a corporation, or restricting ownership of television channels to satellite (as opposed to terrestrial) stations.

At the same time, it must be acknowledged that some newspapers and journalists pursue irresponsible practices and disregard the ethics of their profession. Tabloid journalism purveying sex, crime and sensation in pursuit of advertising profits and sales has become widespread in some Arab countries. Violations of citizens’ right to privacy have increased, and many people are subjected to slander, libel, defamation and abuse.

The momentous events facing the Arab region undoubtedly pose large challenges to the media, particularly since they have now become important tools in conflicts and wars. This was evident in the case of the occupation of Iraq. Some media, including a number of Arab ones, have risen to these new challenges, displaying new levels of objectivity and courage. Others have dropped in public estimation for providing biased or one-sided accounts. Reporting on modern theaters of conflict often, incurs harassment and dangers for journalists, who sometimes suffer casualties, especially when the aggressor has something to hide from the public eye. Eight journalists, seven Palestinian and one British, have been killed under Israeli occupation in less than 2 years. During the invasion of Iraq, Al-Jazeera correspondent, Tareq Ayoub, was killed in an attack on the network’s offices in Baghdad.

MODERN MASS MEDIA

The core platform on which a modern information system rests is built around its associated technologies, equipment, computer networks, software, databases and communication systems. In most societies, this infrastructure serves to educate and enlighten the public, improve the management and co-ordi-

nation of research and development, promote the increased effectiveness and efficiency of public and private institutions, and support informed and streamlined decision-making.

The communications infrastructure in any country is the backbone of attempts to benefit from the broad applications of the communication revolution, especially multimedia services. This infrastructure includes telephone lines, television cables, satellite installations, fibre optic lines, computers and peripherals, information networks and media and culture-based industries.

Telephone networks

Telephone networks are access roads leading to the information highway. They are one of the most important indicators of information availability. Some Arab countries have succeeded in improving their infrastructure in this regard, while still lagging behind international levels. The number of lines in Arab countries is about 109/1,000 persons, while it amounts to 561 in developed countries. There is only one telephone for every 10 Arab citizens, while in developed countries the ratio is 1/1.7 persons. (See Figure 2.6 for a world comparison).

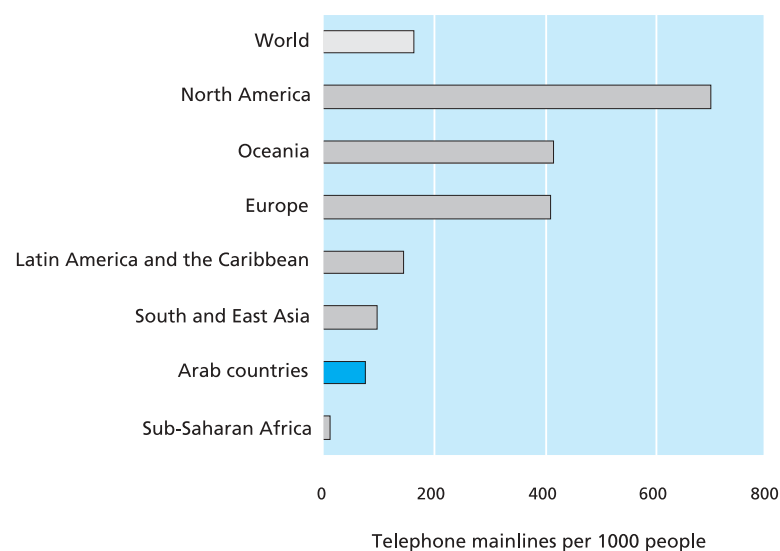
The Arab Joint Economic Report indicates that some tangible improvements in communication services have taken place in Arab countries. Phone density increased in the 1990s, and some countries have converted their networks into digital systems.

There are four international and regional projects in communication and information technology of particular importance in the Arab world. Most Arab countries are taking part in these projects with the goal of developing the information and communication sector. They are:

- The Cable Project: 300,000 km long, and connecting more than 100 countries including 14 Arab states;
- The Fibre Optic Cable project: 27,000 km long, in which Saudi Arabia, Egypt, UAE, and Jordan are participating;
- The *Simoueh* III Project: started operation in 1999 with Egypt, Morocco, and Djibouti participating;
- The Africa Project: This involves all African Arab countries and Saudi Arabia.

Figure 2.6

Number of main phone lines per 1,000 persons(*)



(*) The average is taken as the country-specific likely average (based on population size in 2000) of basic phone data extracted from UNDP HDR 2002. Data on 173 countries (out of a total 179) includes 19 Arab countries.

Yet despite some advances in telephony, overall, public demand for telephone lines in the region outstrips supply, while connections are unreliable and service remains generally poor when compared to developed countries.

Communication technologies

Arab countries have made considerable strides in communication technology, and a number of networks have been digitised. With the creation of Dubai Internet City in 1999, an integrated electronic business, research and development society, UAE demonstrated that it had made rapid progress in ICT. The creation of Dubai Media City (DMC) marks another milestone on the road towards providing a modern infrastructure for an advanced Arab media. DMC has already attracted some major TV channels, including Al-Arabia, MBC, CNN and Reuters TV.

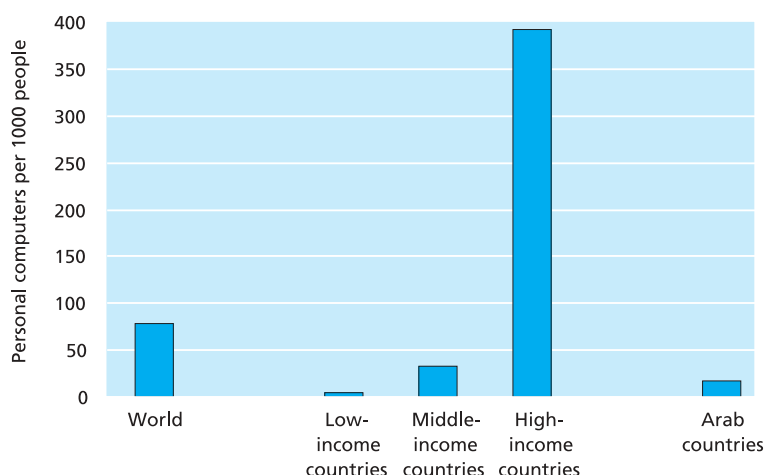
In satellite communication, the modern *Arabsat* network delivers content from various sources across the Arab world. The system delivers a large portfolio of media and information products and services to all Arab countries and parts of Europe as well.

Computer availability is one of the basic standards against which to measure access to information technologies through new technological media. Here, the figures indicate a severe shortage in all Arab countries. There are

There are less than 18 computers per 1,000 persons in the region, compared to the global average of 78.3.

Figure 2.7

Personal computers: Arab world and other regions



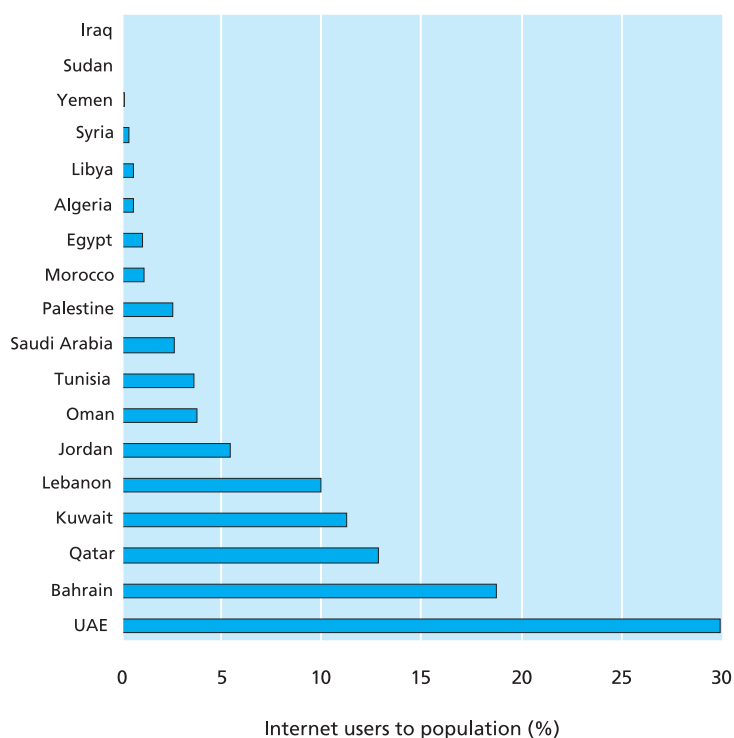
Source: World Bank, 2002.

Cost, political culture and societal context militate against knowledge diffusion through new technologies.

less than 18 computers per 1,000 persons in the region, compared to the global average of 78.3 computers per 1,000 persons. This is hardly an appropriate base for using informatics to spread knowledge and increase demand for it, or for accessing the vast array of scientific research networks, universities and other knowledge sources that through the Internet.

Figure 2-8

Internet penetration in Arab countries, users as % of population, 2001



Source: World Markets Research Centre, 2002.

Access to Modern Media

Statistics indicate that the number of Internet users in Arab countries in 2001 reached 4.2 million, i.e., 1.6% of the Arab population compared to just 1% in 2000, a considerable increase even though Internet penetration in the Arab region is still limited in a comparative context.

The low number of Internet users in Arab countries is due to a number of factors, the most important of which are: computer and Internet illiteracy, the high cost of the lines used and high personal computer prices and access fees. Several initiatives have been taken to deal with these problems, including measures to increase competition among service providers, reduce subscription fees and lower telephone line costs. Other initiatives focus on teaching computer skills on a large scale, as is now the case in many schools and universities.

CHALLENGES FACING THE ARAB MEDIA

Evidently, the Arab mass media faces rooted external and internal constraints on its role in transmitting knowledge and encouraging its acquisition. These challenges are intensified by the rapid development in communication and information technologies and the global knowledge explosion that have given the media in other parts of the world a central role in building knowledge societies. To sum up, in Arab countries:

- People do not have sufficient access to the media and information technologies, compared to world rates and to other countries in the region, and in proportion to the population of the Arab world.
- The social and intellectual benefits of mass media and communication are diluted by government restrictions on content and by superficial market preferences.
- The public relates to the media as a passive recipient, rather than an active participant.

In other words, cost, political culture and societal context militate against knowledge diffusion through new technologies.

The information and communication policies of most Arab countries are similar, inasmuch as they place the media under the dominant political authorities and institutions

and employ media channels for political propaganda and entertainment, at the expense of other functions and services.

Within the Arab media establishment itself, deficiencies such as lack of planning, lack of information, documents and research and a high degree of centralisation impair the organisation, relevance and flexibility of media services. In-depth awareness of audience habits and preferences with respect to information, especially outside the capital and major cities, is also lacking.

State ownership of the media is the norm, particularly in the case of radio and television. (Lebanon, where these mass media services are run by private organisations, is the exception.) Newspapers in the region can be state-owned or jointly owned. Some countries, such as Egypt, Tunisia, Morocco and Lebanon, allow parties to issue newspapers. Yet these publications are subject to specific controls and limitations, particularly for individuals. For these reasons, many individuals and groups have resorted to issuing newspapers from foreign countries such as the United Kingdom, Cyprus and France.

The revolution in communication technology has made it possible for some individuals and corporations to launch private satellite channels in Arabic from foreign countries. Egypt recently permitted the broadcasting of private Egyptian satellite channels from within the country. The conditions governing media ownership in Arab countries raise many questions about the real opportunities available to Arab citizens for exercising their right to issue newspapers, attain information, express thoughts and opinions and monitor government institutions. Another point of concern is the selective homogeneity of Arab media content, considering that diversity of information is an important prerequisite for the attainment of knowledge.

Globalisation has led to an intense debate about the viability of state-owned media, and the ability of governments to sustain their monopoly in an age of free information. This direction of change could potentially support media freedom and people's right to communicate. Some Arabs fear that reducing the role of the state may, however, favour the expansion of the role of multinational corporations

(MNCs). This question goes to the heart of the independence of the Arab media, since one of the main obstacles facing Arab attempts to own communication technologies is the monopoly of major MNCs in the production and marketing of these very technologies.

Arab countries, therefore, need to co-operate closely to raise the performance and independence of the media as a vital conduit of knowledge transfer and as a means of increasing the transparency of government and public services.

The Beginnings of Free Media

The last two years have, however, seen some improvements in the Arab information environment, compared to dominant trends in past decades. While there is still some way to go towards creating an informed, open and knowledgeable public, observers discern a new, more enquiring and therefore more hopeful spirit in the media.

Despite the continuing dominance of monolithic official media channels marked by a single political point of view, the Arabic press has entered a new stage characterised by dawning competition. Newspapers and information media that have enjoyed a monopoly over Arab readers for a long time are encountering new challenges. Arabic newspapers – some published abroad, such as “Al-Hayat”, “Asharq Al-Awsat” and “Al-Quds Al-Arabi” – and some published at home, such as “Annahar”, “Assafeer”, “Al-Khaleej”, and “Al-Bayan” are producing highly professional journalism and enjoy a margin of freedom much larger than that of the official press. With their political and intellectual advantages and their greater financial resources, these newspapers attract a large number of the best Arab writers.

The official press can no longer ignore its new competitors. The challengers have managed to cross borders and overcome censorship barriers, using the Internet to reach farther than paper-based media. Newspapers, such as “Tishreen” of Syria and “Al-Itihad” of the United Arab Emirates, have gone as far as to open public dialogue forums through their web sites.

These changes have not been limited to the press. Television has also undergone re-

The conditions governing media ownership in Arab countries raise many questions about the real opportunities available to Arab citizens for exercising their right to knowledge.

The Arabic press has entered a new stage characterised by dawning competition.

There is clearly a larger role for the Arab camera to play in presenting the world through its lens.

markable changes during the past two years. Private Arabic channels are able to compete for news items and pictures with the strongest international television establishments, as was demonstrated clearly during the Anglo-American war on Iraq. These private channels have instilled a new spirit in Arabic television, helping to change thinking and procedures among some Arabic satellite stations, many of them government-run, such as the “Abu Dhabi Television Station”, the “Nile News Channel” and other official channels in North African Arab countries. There is no doubt that independent Arabic channels have managed to break the monopoly of the big channels over images and news. Some analysts have ventured to conclude that although the international coalition won the military battle in Iraq, the Arabs may have won the information battle. Whether this is speculation or fact, there is clearly a larger role for the Arab camera to play in presenting the world through its lens.

Although the political environment surrounding the Arab media is not the most favourable to knowledge development, some actors have succeeded in creating information and documentation centres, such as those established by “Al-Ahram”, “Al-Bayan”, “Al-Hayat” and “Asharq Al-Awsat”. These offer Arab researchers opportunities previously not available to reap the benefits of the information and digital revolutions.

The creation of Arabic Internet newspapers marks an important further step towards a more inclusive and pluralistic media open to young talent. Several of these newspapers play a positive role in publicising Arab issues in the international arena, through their networks with newspapers managed by international non-governmental organisations. Some, however, still lack credibility with the Arab public and need time to mature: their content often suggests an inability to distinguish between chaff and grain.

The hope is that these beginnings will widen the margins of political freedom in the Arab world, raise the quality of its media and strengthen the important relationship between good governance and the knowledge society. The most important characteristic of these recent developments is that the new media use

the Arabic language, and are therefore starting to reach the largest segment of the Arab public. This contrasts with the prevailing situation where Arabic newspapers, which are published in foreign languages, still enjoy a wider readership than those published in Arabic. Some of the former, such as the “Al-Ahram Weekly” in Cairo, “The Daily Star” and “L’Orient Le Jour” in Beirut, and “Gulf News” in UAE have achieved a high degree of excellence.

TRANSLATION

Translation is a means of seeking knowledge. It represents an interaction among civilisations through the transfer from one language into another, by humans or machines, written or oral, with the goal of achieving scientific and cultural objectives. The question facing Arab countries is: how can translation become an asset in building knowledge? How can it be mobilised to enhance the frame of mind of individuals and increase the intellectual and cultural reference of society? How can it contribute new values, new ways of thinking and new forms of empowerment? Certainly, translation creates opportunities for the acquisition and transfer of knowledge within the framework of global communication networks built up by communication culture. It opens up spaces for mutual interaction and influence, and protects societies from becoming passive recipients of imported knowledge, especially when those societies cease to be producers of knowledge themselves.

Developed and developing countries alike are moving fast to acquire the ever-increasing quantity of knowledge in its original language. Today, English represents around 85% of the total world knowledge balance. Thus, more and more knowledge-hungry countries are paying attention to translation from sources other than English. Efforts in this regard are not restricted to recent or contemporary knowledge, but extend to heritage, history, classical literature and other extant knowledge. Countries mastering these sources are becoming encyclopaedic global knowledge banks and authoritative centres of reference on world information and terminology. New corporations specialised in translation have

The new media use the Arabic language, and are therefore starting to reach the largest segment of the Arab public.

been established and there have been significant initiatives by official institutions, such as the UK WORDBANK, which employs 550 professional translators. According to Newsweek, translation costs in 1989 amounted to \$20 billion. There are more than 100,000 translated titles published in the world every year. The total number of publications, authored or translated, exceeds 830,000 titles annually, and the market for translation continues to boom.

Consider the case of Japan: at the outset of its phase of advancement (the Meiji era), Japan set about transferring all scientific and cultural knowledge into Japanese, in addition to sending outstanding students to learn advanced sciences from the West. Japan has also concluded agreements with major international publishing houses to publish a Japanese edition of each scientific publication immediately after its publication in its original language. It is estimated that 1,700 titles are translated annually. Now, Japan translates 30 million pages a year.

The United States has set its sights on being the global reference point and data bank of the world. Despite the fact that almost 85% of the world's scientific production is in English, the US makes it a point to translate all scientific publications, as well as the cultural legacy of world civilizations.

The state of translation in Arab countries

For Arab societies, translation is a formidable challenge and a vital requirement that necessitates the organisation and planning of efforts within the framework of an ambitious and integrated Arab strategy.

The history of translation in the modern period began in both Egypt and Lebanon for different reasons, and thus it followed different courses. In Lebanon, translation started as an attempt to protect the Arabic language from Ottoman "Turkisation". In Egypt it started during the era of Muhamad Ali and took the form of an active social movement. Sheikh *Rifaa Al-Tahtawi* managed to make translation a social institution, which contributed to the achievement of a national project, and which aimed at bringing about an overall revival of science and industry. This ac-

BOX 2.5

The Arab Organisation for Translation

The Arab Organisation for Translation was established in Beirut, Lebanon in December 1999 as an international, non-governmental, independent and specialized agency.

The Organisation aspires to accomplish a qualitative and quantitative advance in translation activity to and from the Arabic language in various branches of knowledge, to introduce science into contemporary Arab culture, to stimulate demand for translated books and to develop a plan for promoting translation in the Arab world.

The Organisation adopts the concept of "translation-research", which aims to transmit knowledge rigorously and accurately and to support translation with research on technical terms, introductory material and annotation in order to create a better understanding of the

text. In this manner, it strives to build an environment of trust which encourages researchers and students to accept translations, thus overcoming widespread and justifiable reservations about many current translations, especially those driven by commercial motives.

The Organisation is guided in what it selects for translation by what it deems necessary for scientific and intellectual advancement. The selection results from a wide and thorough process of consultation, surveys and proposals tabled at the pan-Arab level, which pass through seven specialized committees dealing with respectively: Foundations of Scientific Knowledge; Contemporary Scientific Culture; Philosophy; Social and Human Sciences; Applied Sciences and Techniques; Arts and Literature; and Languages and Lexicons.

Source: General Director, Arab Organisation for Translation.

tivity, though, was obstructed and eventually failed.

Most Arab countries have not learned from the lessons of the past and the field of translation remains chaotic. In terms of quantity, and notwithstanding the increase in the number of translated books from 175 per year during 1970-1975 to 330, the number of books translated in the Arab world is one fifth of the number translated in Greece. The aggregate total of translated books from the *Al-Ma'moon* era to the present day amounts to 10,000 books - equivalent to what Spain translates in a single year (Shawki Galal, *in Arabic*, 1999, 87)³.

This disparity was revealed in the first half of the 1980s when the average number of books translated per 1 million people in the Arab world during the 5-year period was 4.4 (less than one book for every million Arabs), while in Hungary it was 519, and in Spain 920. (Figure 2.9.)

There are no accurate statistical data regarding the academic level of these translations. But a marked shortage of translations of basic books on philosophy, literature, sociology and the natural sciences is quite evident. Meanwhile, translations of some titles of much lesser importance exist. A crucial policy for the future will be to organise the selection of

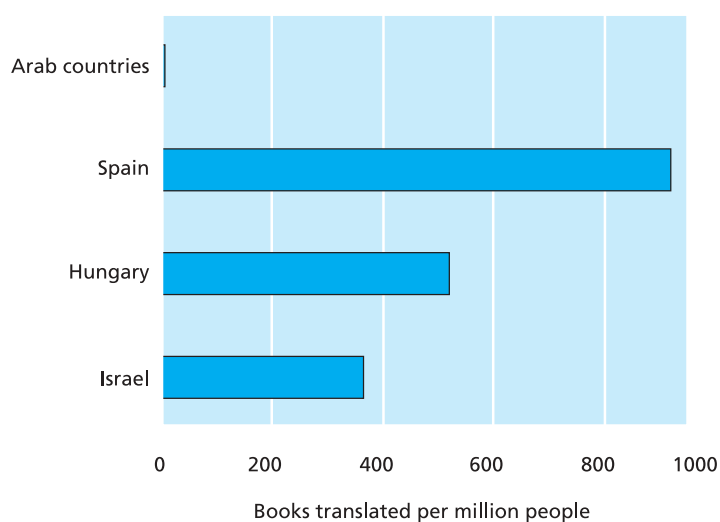
The aggregate total of translated books from the Al-Ma'moon era to the present day amounts to 10,000 books - equivalent to what Spain translates in a single year.

³This number was erroneously stated as 100,000 in AHDR1.

books for translation in order to fulfil Arab academic research needs. Such a policy is required to make translation an effective force in advancing research and knowledge in the region.

Figure 2.9

Number of books translated in Arab countries (per 1 million people) compared to selected countries, 1981-1985



Source: Unesco, 1995.

This chapter shows that the dissemination of knowledge in Arab countries is beset by many difficulties. Chief among these is the absence of a strategic vision and societal incentives that provide a solid foundation for knowledge dissemination through education, media, publishing and translation. These channels have the potential to be major shapers of a cultural and scientific climate conducive to knowledge adaptation and production. Yet in all three, quality, excellence and independence, which remain the most important dimensions of a knowledge society, have suffered. This trend has to be reversed through conscious policy-making. The following chapter discusses knowledge acquisition on higher levels of society, focusing on the production of knowledge.