

Education, ICT and OER in the United Arab Emirates

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Education in UAE

Policy

Public schools are government-funded and the curriculum is created to match the UAE development's goals and values. The medium of instruction in the public school is Arabic and English as a Second Language is emphasized. There are also many private schools which are internationally accredited. Public schools in the country are free for citizens of the UAE, while the fees for private schools vary.

One of the UAE's highest priorities has always been education. As His Highness (H.H.) Sheikh Zayed Bin Sultan Al Nahyan, founder of the UAE, noted,

"The greatest use that can be made of wealth is to invest it in creating generations of educated and trained people." and "The real asset of any advanced nation is its people, especially the educated ones, and the prosperity and success of the people are measured by the standard of their education."

Much has been achieved since the early 1970s but efforts are now being made to improve the educational environment for all pupils, in line with a re-evaluation of the role of government. In particular, [Abu Dhabi Education Council \(ADEC\)](#) is spearheading privatisation of the education sector in Abu Dhabi¹.

Breakdown of the education system Primary and secondary education is provided for all UAE citizens. The existing educational structure, which was established in the early 1970s, is a four-tier system covering 14 years of education.

- **Kindergarten** Age level from: 4 to: 5 years old
- **Primary** Length of programme in years: 6 Age level from: 6 to: 12
- **Preparatory** Length of programme in years: 3 Age level from: 12 to: 15
- **Secondary** Length of programme in years: 3 Age level from: 15 to: 18 Certificate/diploma awarded: Secondary School Leaving Certificate

There is also the **Technical Secondary School**: Length of programme in years: 6 Age level from: 12 to: 18 Certificate/diploma awarded: Technical Secondary Diploma

A rapid rise in population has necessitated a considerable investment in education. Today, the UAE offers a comprehensive education to all male and female students from kindergarten to university, with education for the country's citizens being provided free at all levels. There is also an extensive private education sector, while several thousand students, of both sexes, pursue courses of higher education abroad at Government expense.

The emiratization of teaching staff is scheduled to reach 90% by 2020, in order to ensure that the Islamic principles and traditions of the UAE are preserved. A Planning, Development and Evaluation Office has been created by the Ministry to oversee the strategy's implementation².

¹ <http://www.uaeinteract.com/education/>

² <http://www.sheikhmohammed.co.ae/vgn-ext-templating/v/index.jsp?vgnextoid=1e8c4c8631cb4110VgnVCM100000b0140a0aRCRD>

Laws

Primary school education is compulsory for all UAE citizens. Government policy is to provide staff/student ratios of 1:20 at kindergarten and primary levels; and 1:15 at intermediate and secondary levels. The existing staff/student ratios are well within this proposed range.

Humaid Mohammad Obaid Al Qutami, the UAE education minister announced a new law to regulate private education. The law is based on the best practices in Singapore and Australia and incorporates inputs from owners, headmasters and parents' councils in the UAE, he said. "The new law will improve private education section and regulate educational and financial aspects in private education institutions in the UAE."³

2012 marked an important milestone in the journey the UAE's education system has taken since its inception in 1971. A proposed Federal Law which makes education compulsory from the age of six to 18 for UAE citizens was approved by the UAE Cabinet. The law includes a mechanism that will ensure implementation and fines that will be enforced to ensure the law is not ignored:

- **Implementation:** Ensure that mechanisms are developed to ensure successful implementation of the law. For example a project management team or a committee could be assembled to monitor the implementation process, liaise with the stakeholders and troubleshoot any issues that might arise. A coherent and effective project team will ensure that proper follow-ups and troubleshooting are conducted and stakeholders are engaged.
- **Regulation:** Ensure that the law stays relevant to the current realities and future developments. This requires proactive engagement of other relevant regulatory authorities and government establishments. For example, this could mean that government manpower agencies such as Tanmia or Abu Dhabi Tawteen Council might have to require school dropouts who are currently registered as jobseekers in its database to return to school and continue their education. Another example where regulation could play a role would be through engaging local sports clubs to encourage young athletes to continue their education as a condition to be accepted as a full-time player in the club
- **Intervention and Penalty:** This is an equally important step that is necessary. Monitors and controls will need to be set in place to ensure that the new law is not ignored by individuals, families and establishments. The law requires families to consult a representative of the committee who will – based on the circumstances of the case – approve the request or help the family find alternative solutions instead of terminating the schooling of their young one. Intervention might also be required in another possible scenario where an employee who wishes to continue their primary education is denied that right by the employer and the employee is left with one of two choices; lose their employment for the sake of resuming their primary school education or submit to the employer's wishes.

It is hoped the new law could present an excellent platform to help shape education content and systems so that it reflects the needs of today's society and marketplace. By allowing organisations to play a more proactive role in influencing education content positively will eventually help produce graduates that are equipped with skills and qualifications needed in the market.⁴

³ <http://www.ameinfo.com/256608.html>

⁴ <http://uaetopia.wordpress.com/2012/09/04/uae-compulsory-education-law-four-steps-to-ensure-it-does-not-fail/>

Statistics

The UAE has focused on educating both men and women. In 1975, the rate of adult literacy was 54% among men and 31% among women. Today, literacy rates for both genders are nearly 90%⁵.

Some 95% of all females and 80% of all males who are enrolled in the final year of secondary school apply for admission to a higher education institution in the UAE or study abroad. Nationals can attend government tertiary-level institutions free of charge, and a wide and rapidly increasing range of private institutions, many with international accreditation, supplement the public sector.

The following statistics are extracted from data available from UNICEF:⁶

Youth (15-24 years) literacy rate (%), 2005-2010*, male	94
Youth (15-24 years) literacy rate (%), 2005-2010*, female	97
Number per 100 population , 2010, mobile phones	145
Number per 100 population , 2010, Internet users	78
Pre-primary school participation, Gross enrolment ratio (%), 2007-2010*, male	95
Pre-primary school participation, Gross enrolment ratio (%), 2007-2010*, female	94
Primary school participation, Gross enrolment ratio (%), 2007-2010*, male	106
Primary school participation, Gross enrolment ratio (%), 2007-2010*, female	105
Primary school participation, Net enrolment ratio (%), 2007-2010*, male	98
Primary school participation, Net enrolment ratio (%), 2007-2010*, female	97
Primary school participation, Net attendance ratio (%), 2005-2010*, male	–
Primary school participation, Net attendance ratio (%), 2005-2010*, female	–

⁵ <http://www.uaecd.org/education-introduction>

⁶ http://www.unicef.org/infobycountry/uae_statistics.html

female	
Primary school participation, Survival rate to last primary grade (%) , 2006-2009*, admin. data	97
Primary school participation, Survival rate to last primary grade (%) , 2005-2010*, survey data	-
Secondary school participation, Net enrolment ratio (%), 2007-2010*, male	82
Secondary school participation, Net enrolment ratio (%), 2007-2010*, female	84
Secondary school participation, Net attendance ratio (%), 2005-2010*, male	-
Secondary school participation, Net attendance ratio (%), 2005-2010*, female	

Schools with computer laboratories

98% of the educational establishments have a computer laboratory. The average number of laboratory computers in each educational establishment is 38.

For public schools, 100% have computer labs with an average of 40 computer lab computers at the school. For private schools, 96% have computer labs with an average of 36 computer lab computers at the school.

Percentage of schools with basic telecommunication infrastructure or telephone access

All schools have some form of telecommunication infrastructure.

Percentage of schools with an Internet connection

93% of schools have some form of Internet connection with DSL connection being the most popular type of connection. 99% of public schools and 82% of private schools have an Internet connection.

Teachers and ICT training and use

95% of the teachers had taken some form of professional ICT qualification either through training programmes as part of the job, previous employment training programmes, or other external courses. For the purposes of this survey, ICT qualification is defined as any professional certification from a recognized certification body, e.g. private institution, higher education institution, or professional certification body. For public schools the percentage was 97%, and 91% for private schools.

90% of teachers had been trained to use ICT for instructional purposes. For public schools the percentage was 95%, for private schools 81%.

89% of teachers use ICT tools for instructional purposes. For public schools the percentage was 96%, for private schools 78%. 92% of the teachers use computers for administrative

purposes within educational establishments. For public schools the percentage was 93%, for private schools 90%.

Percentage of teachers with mobile phone, use Internet in school, have E-mail, have E-mail address for communicating with students

98% of teachers have a mobile phone and 71% use the Internet in school. 85% of teachers have a private email address while 25% have a school email address for communicating with students.

Percentage of students who use the Internet at school

83% of students use the Internet at school. For public schools the percentage was 87%, for private schools 80%.

Percentage of students using Internet at school by frequency

43% of students use the Internet at least once a day. 32% use it at least once a week, 7% use it at least once a month, and 1% use it less than once a month. It was observed that 17% do not use the Internet in school.

Ministries and Agencies

UAE President H.H. Sheikh Khalifa Bin Zayed Al Nahyan established the [Abu Dhabi Education Council](#) (ADEC), an independent Abu Dhabi-based corporate body, in 2005 to develop education throughout the UAE⁷.

Abu Dhabi Education Council (ADEC)

ADEC works closely with the Ministry of Education (MOE) in formulating the emirate's education plan within the framework of the UAE's general education policy.

ADEC takes an entrepreneurial approach to involve the private sector, improve and modernize facilities, reduce bureaucracy, update curricula and take advantage of information technology.

ADEC has already announced an initiative to improve the quality of public education. The project entitled "Public-Private Partnership for Public School Management" enables leading local and regional private education providers to manage selected public schools in the Emirate of Abu Dhabi in conjunction with ADEC. Launched as a three-year pilot programme commencing in September 2006, selected Abu Dhabi schools, including kindergarten and primary schools for boys and girls in the three educational zones of Abu Dhabi, Al Ain and the Western Region, will be involved in the project.

ADEC has also entered into an agreement in which Zayed University (ZU) will assist in developing the English language skills of elementary level students at four model schools. Thirty faculty members from ZU will work with the first and fourth grade students at these schools, observing and evaluating English language teaching methods, and designing modern academic programmes. The initiative will be extended to all schools at a later stage.

Dubai Education Council (DEC)

This seeks to meet global standards, focusing on international accreditation and comprehensive quality assurance programmes. A recent initiative is designed to attract world-class international primary and secondary schools to Dubai.

⁷ <http://www.uaecd.org/k-12-education>

Ministry of Higher Education and Scientific Research

This has a stated vision to:

*"Achieve leadership in higher education and scientific research, and promote the graduation of highly qualified and globally competitive staff through distinctive educational environment"*⁸

The foundation for the MoE's policy is based on the following set of Vision, Mission and Values⁹.

Vision

Pioneering in Student preparation in K-12 education system for a productive life in a dynamic world to ensure sustainable development for the UAE society.

Mission

Working together to promote the UAE K-12 educational system, investing in human capital to build a knowledge-based society while enriching citizenship values.

Values

1. Citizenship and Responsibilities:

Represented in strengthening national identity and social responsibilities.

2. Principles and Values of Islam:

Reinforce the human values in dialogue, tolerance, moderation, peace and volunteerism.

3. Commitment and Transparency:

Commitment to professionalism and transparency in performance.

4. Contribution and Accountability:

Commitment to partner with the society in the educational system while being accountable for the performance of students.

5. Right to Education For All:

Represented in the equality of opportunities for all the constituents of the society.

6. Quality and Innovation:

Represented in the preparation of a human workforce that effectively contributes in accomplishing sustainable development while being globally competitive.

Commission for Academic Accreditation¹⁰

The Commission for Academic Accreditation (the CAA) is part of the Ministry of Higher Education and Scientific Research of the United Arab Emirates. The authority to license non-federal educational institutions to grant degrees and other academic awards and to accredit their programmes rests with the Ministry, and the CAA has the responsibility of discharging that authority. The CAA developed its first Standards for Licensure and Accreditation in 2001. These have been revised periodically, with the most recent fourth edition published in 2007. The Standards are currently undergoing further revision and the development and

⁸ <https://www.moheer.gov.ae/en/Default.aspx>

⁹ <http://www.moe.gov.ae/english/pages/default.aspx>

¹⁰ https://www.caa.ae/caa/DesktopModules/CAA_Strategic_Plan.pdf

publication of associated 'Procedural Guidelines' will assist institutions in addressing the particular needs of Licensure and Programme Accreditation processes. Since it was established and began operating in September 2000, and as of October 2010, the CAA has licensed a total of 66 institutions and has accredited 479 Programmes.

Knowledge and Human Development Authority (KHDA)¹¹

The Knowledge and Human Development Authority is responsible for the growth, direction and quality of private education and learning in Dubai. It is a regulatory authority in the Government of Dubai which supports the improvement of schools, universities, training institutes and other human resource sectors. It co-ordinates with many different partners; students, parents, teachers, the private sector and other Government bodies all play a role in Dubai's education community. KHDA's work is guided by the Government's strategy and carried out in a transparent manner to make sure everything it does benefits the highest priority – students.

Research ranges from early childhood to adult learning and findings drive initiatives to ensure that Dubai has an educated and flexible workforce to meet the needs of a fast-changing and globalised world. [Publications](#), along with detailed [school inspection reports](#), provide evidence-based information for everyone involved in education.

Vision

Lifelong learning to fulfil Dubai's aspirations.

Mission

To assure quality and to improve accessibility to education, learning and human development, with the engagement of the community.

The Dubai School Agency (DSA)

DSA was established by virtue of the Executive Council Decree No. 11 of 2007. DSA was established to oversee the development of school-based educational services in the Emirate. DSA focuses on building and maintaining partnerships between educational institutions and government organisations in Dubai. With a particular focus on Emirati students in private education, it further promotes the enrichment of education and the engagement of schools with the wider community. This is achieved through working with major education awards such as His Highness Sheikh Hamdan bin Rashid Al Maktoum Award for Academic Excellence and support to organisations working in the field of environmental sustainability, security and healthy lifestyles.¹²

The National Institute for Vocational Education (NIVE)¹³

NIVE was established in the United Arab Emirates (UAE) in 2006, in conformity with the directions of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, the UAE Vice President, Prime Minister and Ruler of Dubai, in order to provide students with the opportunity to gain specific job competencies geared to enhancing their employability. NIVE is an autonomously managed organisation affiliated with the Knowledge and Human Development Authority (KHDA).

¹¹ <http://www.khda.gov.ae/Pages/En/aboutkhdaen.aspx>

¹² <http://www.khda.gov.ae/Pages/En/schoolsagency.aspx>

¹³ <http://www.nive.gov.ae/En/Default.aspx>

Schools in UAE

There are over 300 schools in UAE including private, international and nurseries¹⁴. Reviews of some of these schools by students are available on line.¹⁵

Pre-primary schools

Parents are encouraged to look at three major areas when considering pre-primary education in the UAE¹⁶.

Curriculum and learning approach

What kind of curriculum or learning approach does the centre follow? Whatever the approach, there should be clear learning and development outcomes for your child and mechanisms for the teacher to report on your child's progress on a regular basis. Depending on your first language, you will want to ask about the languages used in the centre – for example, will your child be given the opportunity to interact with adults speaking good Arabic and good English? Check that the daily programme will provide your child with different experiences within a clear routine and that the centre is committed to the importance of play for your child to learn. Some centres also enhance their curriculum with in-house programmes or visits by outside organisations.

Quality of provision

It is important to enquire about and, if possible, observe the teaching and learning. In general, are the teachers friendly, caring and qualified to provide care and nurturing for your child and do they make you feel welcome in the centre and answer your questions openly and fully? Ask about the nationality and qualifications of the staff and about the staff-to-child ratio – how many children will be under the care of each adult?

The environment

The Ministry of Social Affairs sets out a number of safety regulations which early childhood education centres must follow. In addition, it is a good idea to ask about the presence of a centre nurse, the number of staff who are qualified in first aid and the safety and security measures taken by the centre. Ask about the measures taken to ensure a clean environment and to prevent cross-contamination. You will also want to check that there are secure procedures to stop unauthorised people entering the building and for the drop-off and pick-up of children by authorised adults only. We encourage you to gather as much information as possible about a centre before you apply to admit your child. Research suggests it is important to look at three major areas and below are some of the questions experts suggest you think about.

Primary schools

Primary education is compulsory from the age of 5 by law of the Ministry of Education in the UAE. Most schools offer both primary and secondary instruction so students do not need to transfer to a separate school location upon graduating from primary school.

¹⁴ <http://www.dubaifaqs.com/schools-list-uae.php>

¹⁵ <http://www.edarabia.com/schools/uae/>

¹⁶ <http://www.khda.gov.ae/Pages/En/howtochoseanursery.aspx>

American curriculum runs from Kindergarten (5 years old) to Grade 8 (14 years old). British curriculum runs from Year 1 (4-5 years old) to Year 9 (14 years old)¹⁷.

Primary education is for six years, divided into two three-year cycles: a basic or "junior primary stage" in which one teacher has a single class throughout the day, and the "senior primary stage," in which there are different teachers for the different school subjects. "Preparatory education" includes classes from Grades VII to IX of the first primary sequence or from Forms I to III of the preparatory stage. The school year extends over 32 weeks for both the kindergarten and the basic junior primary stage¹⁸.

Core subjects in the junior primary stage include Islamic education, Arabic language, English language, mathematics, and science. Activity subjects include art, physical education, music, and family education for girls. The same subjects are taught at the senior primary stage, but the number of periods for some of them is increased. At the senior stage, social studies join the required subjects. The same subjects are taught at the preparatory stage with an increase in content and the number of class periods. Social studies become divided into three separate units that include history, geography and civics.

Secondary schools

The preparatory stage caters for children aged between 12 and 14. 15 to 18 year-olds attend secondary schools and are awarded a Certificate/diploma; a Secondary School Leaving Certificate.

At the secondary level the following subjects are taught in the annual sequence indicated¹⁹:

- Year I: Islamic education, Arabic language, English language, history, geography, mathematics, physics, chemistry, biology, geology, computer science, physical education, and family education (for girls).
- Years II-III: Islamic education, Arabic language, English language, mathematics, physical education, and family education (for girls). These are the basic subjects. In addition, students can choose to join either the science section or the literary section, and have to study the following additional subjects: history, geography, sociology, and economics in the literary section; physics, chemistry, biology, and geology in the science section.
- Year III: there is an increase in the number of subjects taught in the second year of secondary in each of the two streams. Literary-section students are taught philosophical subjects, logic, and psychology instead of sociology and economics.

Ministerial Resolution No. 2263/2 for the year 1995 allocated the number of teaching periods for the different subjects and activity subjects for the secondary stage of general education. Exactly 34 weekly periods (boys) or 36 periods (girls) are required in the first two years; 36 weekly periods (boys and girls) are required in the third year.

Preparatory education lasts three years (age group 12-14) and qualifies students for general or technical secondary education. General secondary education lasts for three years and is for the age group 15-17 years old. After the first year of core subjects, students can choose to follow either a science or a literary stream. Technical education comprises three main

¹⁷ http://en.wikipedia.org/wiki/Education_in_Dubai

¹⁸ <http://education.stateuniversity.com/pages/1608/United-Arab-Emirates-PREPRIMARY-PRIMARY-EDUCATION.html>

¹⁹ <http://education.stateuniversity.com/pages/1609/United-Arab-Emirates-SECONDARY-EDUCATION.html>

streams: technical, agricultural, and commercial. It is divided into two levels, one for technical preparatory education, and the other for technical, commercial, and agricultural secondary education, each lasting three years. In technical education courses English is used for specialized subjects but all other subjects are taught in Arabic.

At the end of the general and technical secondary stages, students are awarded a certificate after passing the general examination held at the end of each academic year. This certificate qualifies a student to undertake higher studies at university level. In 1996, programmes of technical education to be carried out jointly with German technical institutions were initiated. Priorities of the Ministry at the secondary level are to reduce the failure and dropout rates and incidents of truancy and to increase the efficiency of administrators through executive development programmes. Secondary education development studies includes research on teaching strategies that take into account individual differences among learners, and directing educational resources for improvements in individualized instruction. A further focus is with educational guidance or counselling, monitoring and directing of students to areas that suits their capabilities and aptitudes.

The School Activities Project seeks to help learners develop their capabilities and interests in science and technology by adding two successive periods for programme activities. Activities include electronics, automotive engineering, astronomy, basic electricity, and maritime sciences.

Comprehensive changes have taken place in recent years in the curricula, syllabi, laboratories, and overall framework of technical education to contribute emiratization and increase the number of technical school graduates in the workforce. A Technical Education Development Plan seeks more direct connections between work and study. Studies for the development of technical education include both the practical and theoretical aspects of different specializations. They also include a worksite participation plan allowing graduates opportunities to work with modern equipment and facilities.

Government policy is to provide teacher-student ratios of 1:15 at intermediate and secondary levels. Current teacher-student ratios are well within this proposed range. The teacher-student ratio of intermediate and secondary levels is 1:10. On the average, from 12 to 14 percent of the students must repeat a grade because of failure.

Private schools

New laws regulate every aspect of private education from health and safety to hiring practices and curriculum modification²⁰.

"Safety and security of children on campus is a key component of these laws," said Dr Maryam Ahmed Al Ali, a policy chief at ADEC, the Abu Dhabi schools regulator. "The onus of ensuring children are safe and secure on campus will be on the school principal."

The new law details the legal rights and responsibilities of the emirate's 183 private schools, which teach about 185,000 pupils – two thirds of the school-age population.

It "includes federal and local regulations and is based on internationally followed guidelines," said Hamad Al Dhaheri, an executive director at ADEC. "It will provide more transparency and a legal basis for action."

Before now, private schools operated on a combination of a federal law dating to 1999 and a series of bylaws introduced in 2008.

²⁰ <http://www.thenational.ae/news/uae-news/education/school-principals-across-uae-ask-for-clarity-on-changes>

Private education providers have long asked for an overhaul of bylaws that did not provide the necessary transparency or a consistent basis for operation.

The new law was developed by ADEC over two years, signed into effect by the Executive Council. Its 23 chapters and 87 articles make education providers more accountable for maintaining ADEC's standards.

Schools will be given three years to implement the law to its full extent: 52 articles will be introduced in the first year (2013/14), 19 in the second year (2014/15) and 13 during the 2015/16 academic year.

The 52 regulations that will be enforced initially include tougher child protection measures, school licensing procedures and health and safety standards. No form of bullying or physical, emotional or verbal abuse will be tolerated.

During the next academic year, schools must comply with a further 19 articles governing staffing methods, school management and professional licensing procedures.

Although schools must currently register any new hire with ADEC, it is largely left to the Ministry of Labour to check qualifications and issue a teaching visa. Under the new law, schools will have to seek official licensing from ADEC for both teachers and principals. The procedure is still under review but will involve thorough background and credential checks.

The final 13 laws will come into force in the 2015/16 academic year and concern school governance, accreditation and building requirements.

ADEC will carry out more quality checks on the curriculums offered by schools and non-accredited programmes will not be approved.

ADEC officials will be surveying schools to identify shortcomings and help them to implement the new regulations.

Homeschooling

Home schooling is undergoing a major shake-up to improve results after less than 3% of pupils passed exams in 2008. The Government delayed registration to its home-schooling programme for the new school year as it developed measures to reform the failing system. Among the changes being considered are making pupils attend certain classes to ensure they progress well through the curriculum²¹.

The reforms also cover pupils studying at adult education centres, which likewise reported examination success rates well below government schools. The ministry also opened a hotline with educational zones to ensure maintenance problems were dealt with promptly and textbooks were distributed.

In June 2008, the Ministry of Education promised to review its home-schooling programme following low Grade 12 pass rates. In the science stream, just 1.79% of home-schooled pupils achieved the pass rate of 60%, while in the arts stream, the figure was 2.95%. At adult education centres, the pass rate in the science stream was 14.63%, while in the arts stream, only 13.02% of candidates passed.

At government schools, success rates were much higher – at 83.9% in science and 69.4% in the arts. At private schools, the results were even better. Students schooled at home include young people who were removed from school by their parents and adult women completing their education after leaving school to marry. Most pupils at adult education

²¹ <http://www.thenational.ae/news/uae-news/education/home-schooling-under-review-amid-massive-fail-rate>

centres are people who work and, for various reasons, did not complete their secondary education when they were younger. They attend classes in the afternoon and evening.

The reforms follow a change to the way pupils are assessed in their final school years. The emphasis in examinations is now on applied skills, rather than rote memory and the recall of information. Also, examinations are taken over two terms and half of the marks come from continuous assessment. Although registration has been postponed and is unlikely to begin before the new school year starts, home-schooled pupils and adult students can buy textbooks and begin their studies.

Adult Education especially school-level

Ever-increasing dropout rates from schools and universities, as well as, the lack of educational facilities for citizens over the age of 50, have prompted senior educational officials in the emirate of Abu Dhabi to look closely at these concerns²².

An 11-member committee, which includes representatives from schools and the Council, was established in March 2010 to deal with various educational issues.

There are currently 16,000 students, most of whom are Emiratis, in adult education institutions across the emirate. A lack of qualified teachers and unified curriculum are the major issues to be addressed.

There is also concern that public school pupils who have failed an academic year twice, especially those who failed in grade 12, are sent to an adult learning centre, where they are placed with peers of very different age groups.

Ways are being found to motivate students to complete their education, whether it is through encouraging them to enrol in institutes or distance-learning programmes.

There are currently 47 centres, made up of the Family Development Foundation, Learning centres and 23 public schools that offer nightly adult education classes.

There are more female than male students because many had to stop initially due to various cultural reasons such as marriage, but we also see male students who wish to continue their higher education join these programmes to receive their high school diploma in order to do so.

Another major concern also highlighted was the lack of resources for illiterate senior citizens.

A study on the reasons for the high dropout rate in grade 12 at Adult Education Centres in Abu Dhabi, the United Arab Emirates (UAE), has pointed the finger at the economic and social factors in addition to educational reasons²³.

The study prepared by Thuraya Khalifa Al Salmi and submitted as a dissertation in partial fulfilment of the requirements for the Degree of Master of Education at the Al Hosn University showed that 51% of the total number of students at the Adult Education Centres in Abu Dhabi dropped out. The study also showed that social reasons accounted for 42% of the total dropouts while economic reasons accounted for 30% followed by educational reasons which accounted for nearly 28% of all dropouts.

²² <http://gulfnews.com/news/gulf/uae/education/adec-turns-focus-to-improving-adult-education-programmes-1.949083>

²³ http://www.ipsnotizie.it/wam_en/news.php?idnews=7395

The study pointed out that the drop-out issue is a big problem the education system faces in the UAE, especially in the adult education centres. This issue contradicts the strategy of the UAE government of 2010-2011 which emphasized that “developing a high level educational system” is one of the main targets of the UAE strategy, through decreasing the drop-out averages.

The drop-out phenomenon is a common problem in all adult learning centres in the emirate of Abu Dhabi. A survey conducted by Abu Dhabi Educational Zone shows that drop-out rates among adult nationals in grade 12 are extremely high and steadily increasing, noted the study.

It also said that family situations often affect a student’s decision to drop-out because family responsibilities or a negative learning environment prevent regular study time or attendance in classes. A family that does not support positive study skills and respect for learning would stand in the way of the student’s wishes.

Looking generally at the economic reasons, the study said that economic situations have great effects on drop-out rates, especially in the developing countries where working times interfere with studying hours, in addition to a lack of incentives.

The study also put forward a number of recommendations to solve the phenomenon including the improvement of the entire system of adult education.

Further and Higher education

Graduates of high school may continue their education in a technical or vocational institution, a higher college of technology (for two-four years), or a four-year college or university. Technical or vocational institutions offer post- secondary technical training leading to specific careers. Higher colleges of technology typically offer associate degrees²⁴.

Universities

A Bachelor’s degree normally requires four years of college-level coursework, in addition to one year of general requirements. Undergraduate studies leading to a Bachelor’s degree are generally divided into two phases: a set of general course requirements in a broad range of subjects and a concentrated (or major) programme of study in one or more subjects, such as business, biology, sociology, and education. Applications to a four-year college or university may require completion of an entrance examination and high school transcripts.

Graduate education includes programmes of study leading to a Master’s. Master’s degrees require at least one year of coursework beyond the Bachelor’s degree. Policies and standards for admission into graduate programmes usually include an application, high performance in undergraduate studies, and letters of recommendation. The Test of English as a Foreign Language (TOEFL) also may be required.

Accreditation of post-secondary institutions is carried out in the UAE by private, not-for-profit, non-governmental organizations. For example, the College of Business and Economics at the UAE University is accredited by AACSB, the College of Engineering at the UAE University is accredited by ABET, while the College of Education at the UAE University is accredited by NCATE.

²⁴ A Global Guide to Management Education, 2006 , Mohamed Y. El-Bassiouni and David Graf College of Business and Economics, UAE University
http://www.gfme.org/global_guide/pdf/301-304%20UAE.pdf

Most institutions in the UAE operate using a semester academic calendar. The semester system consists of two sessions called semesters, each lasting about 16 weeks. Also, there might be an additional session in the summer. In the UAE an academic year is generally a period of time from September to June that usually equates to two semesters. A credit hour is a unit of measure representing an hour (in reality 50 minutes) of instruction over a 16-week period in a semester system. It is applied toward the total number of hours needed for completing the requirements of a degree, which varies by institution.

UAE is home to a wide range of universities, both public and private. The UAE has established an excellent and diversified system of higher education in a very short period of time²⁵.

The Ministry of Higher Education & Scientific Research (MOHESR) established the Commission for Academic Accreditation (CAA) to conduct a programme of licensure of institutions of higher education and accreditation of each of their academic programmes.

The mission of CAA is to promote educational excellence across diverse institutions of higher learning in the UAE. Through licensure of colleges and universities, and accreditation of individual programmes, the Commission strives to assure high quality education, consistent with international standards. The ten standards of excellence and the criteria that all institutions must meet for licensure and programme accreditation provide measures of quality and also reflect a consensus within the international higher education community about the essential characteristics of institutions that achieve a level of excellence and continuously improve. As a result, students, graduates, their families, and the UAE public can be confident that licensed institutions and accredited programmes will provide the high quality of higher education that they expect and deserve.

UAE higher education institutions can be divided into three categories: Public, private, and Global Partnerships.

Public Institutions

UAE citizens can attend government institutions free of charge, and the UAE has one of the highest application participation rates in the world. 95% percent of all girls and 80% of boys enrolled in the final year of secondary school apply for admission to a higher education institution. Public institutions include:

- **UAE University** (UAEU), where enrolment has increased from 502 in its founding year (1977) to nearly 14,740 in 2006. Women represent 79% of the student body. UAE University awards 70 undergraduate degrees as well as some graduate degrees. Many of its programmes are internationally accredited.
- **Zayed University** (ZU), established in 1998 as an all-women's institution, and later expanded to include men. It is organized into five colleges — Arts and Sciences, Business Sciences, Communication and Media Sciences, Education, and Information Systems. The primary language of instruction is English.
- **Skyline University College** (SUC) was established in 1990 in Sharjah, a city that has been recognized as a hub for education, culture and heritage by UNESCO. The SUC was established under the patronage of H.H. Sheikh Dr. Sultan Bin Mohammed Al Qassimi, the member of the UAE Supreme Council and the Ruler of Sharjah. H.H. Sheikh Dr. Sultan Bin Mohammed Al Qassimi has always supported SUC in its pursuit to offer high quality education. SUC believes in responding innovatively and effectively to train human resources and fulfil educational needs of industries like Aviation, Hospitality, Travel & Tourism, Information Systems, Marketing, Business Management and Finance

²⁵ <http://www.uaecd.org/higher-education>

sectors, and is presently one of the leading Universities in Northern Emirates. See <http://www.skylineuniversity.com/Page/Home.aspx>

- **Higher Colleges of Technology** (HCT), the largest higher educational institution with an enrolment of over 18,000 UAE nationals. It was founded in 1988 with four campuses. HCT now includes 16 men's and women's colleges in Abu Dhabi, Al Ain, Madinat Zayed, Dubai, Ras al-Khaimah, Sharjah and Fujairah. The colleges offer more than 80 programmes at four different credential levels – Diploma, Higher Diploma, Bachelor and Masters. More than 10,000 of the current students are female.

Private Institutions

UAE citizens can attend a wide range of *private institutions*, many with international accreditation, which supplement the public sector. Some of the key private institutions include:

- **American University in Dubai** (AUD), which was founded in 1995 as a private, non-sectarian institution of higher learning, serves UAE nationals and international students who seek world-class career-oriented education.
- **American University of Ras Al Khaimah** (AURAK), which was established in April 2009, provides high quality American-style undergraduate and graduate education that encourages lifelong learning and professional education; conducts research to serve the RAK Emirate, the UAE, and the greater region to strengthen community and business development; and promotes human capacity to ensure an educated workforce for social and economic progress.
- **American University of Sharjah** (AUS), which was founded in 1997, offers 25 majors and 48 minors at the undergraduate level, and 13 master's degrees programmes through the its academic divisions.
- **American University in the Emirates** (AUE) offers a variety of high-quality accredited academic programmes. AUE's broad range of programmes and specializations are offered by five colleges, one institute, and two centres.
- **University of Sharjah** (UOS), which was established in October 1997, aims at being a foundation of higher education utilizing the most modern educational means and curriculum. UOS is comprised of 14 colleges, which offer diverse academic programmes of study at the diploma, bachelor's and master's levels. The student population at the University has currently reached 8000 with a faculty of 400, which means a faculty member for each 20 students.
- **Ajman University of Science and Technology** (AUST), which was founded in 1988 as the Foundation of Ajman University of Science and Technology, has changed its name to Ajman University of Science and Technology since 1996. AUST aims to produce competent and skilled graduates who can be of immediate benefit to society, contributing to its development and well-being.
- **Abu Dhabi University** (ADU), which opened its doors in September 2003, offers highly rewarding career oriented undergraduate and graduate degree programmes aligned with the needs of UAE and the region through excellence in teaching, student learning, faculty scholarship and engagement in community development. ADU is in a process of continued development with campuses in Abu Dhabi and Al Ain.
- **Al HOSN University**, which opened in 2005, started with three faculties — Engineering, Business and Arts and Social Sciences. It will offer a unique set of disciplines, some of which are being introduced for the first time in the UAE.
- **Masdar Institute for Science and Technology** (MIST) began accepting students in 2009. MIST will be the Middle East's first graduate education and research university focused on developing the next generation of solutions to the world's dependence on fossil fuels.

Private institutions are playing an important role in education across the UAE. A high percentage of students in the UAE are enrolled in private schools, e.g. 50% of all students are in private schools in Dubai and 40% in Abu Dhabi.

Global Partnerships

A number of international universities have campuses or programmes in the UAE. Some are housed in special zones, including Dubai Knowledge Village and Academic City. These are multi-university complexes that attract students from the region who are unable to go abroad to study. More than 25 universities are located, or planning to be located, in these special Free Zones.

The UAE government and the individual Emirates have forged numerous partnerships with US institutions aimed at improving education in the UAE, and promoting exchanges between Western and Arab cultures.

- **Johns Hopkins' Bloomberg School of Public Health** is helping establish a public health doctoral programme in the Emirates.
- **New York University** is opening a campus in Abu Dhabi, the first comprehensive liberal arts and sciences campus, with a robust research component, to be operated abroad by a major US university. When the main campus opens on Saadiyat Island, NYU Abu Dhabi is expected to serve over 2,000 undergraduate and graduate students of diverse backgrounds and who will be recruited worldwide.
- The **Massachusetts Institute of Technology** is helping create the Masdar Institute of Science and Technology (MIST), the first graduate level, research-driven scientific institution in the region.
- The **Wharton School of the University of Pennsylvania** has partnered with Dubai World to create the Dubai Leaders Program.
- The **Rochester Institute of Technology** signed an agreement with officials from Dubai to establish a new campus in the Emirate.
- Since 2005, the **New York Institute of Technology** (NYIT) has been offering degree programmes at the Centre of Excellence for Applied Research and Training (CERT) Industrial Park, in Abu Dhabi. In 2007, NYIT became the first American university in the United Arab Emirates licensed by the Ministry of Education and Scientific Research.
- The **Colorado School of Mines** and the Abu Dhabi National Oil Company signed a 10-year agreement for the development of the Petroleum Institute in Abu Dhabi, a one-of-a-kind collaboration between industry and academia that will bring world-class educational resources and research to the Gulf.

Other special programmes include:

- The **Sorbonne opened its Abu Dhabi campus** in 2006 and awards qualifications under French regulations and standards set by the Sorbonne in Paris.

Higher Technical Education

Founded in 1997, the **Centre of Excellence for Applied Research and Training** (CERT) is the commercial arm of the [Higher Colleges of Technology](#) (HCT) and provides education, training and applied technology. The company is the largest private education provider in the Middle East and is developing projects throughout the Middle East and North Africa (MENA) region²⁶.

Other vocational and technical educational centres include:

²⁶ <http://www.uaecd.org/technical-education>

- **The Emirates Institute for Banking and Financial Studies (EIBFS)** was established in 1983 to disseminate knowledge in the banking field and contribute towards the development of human resources in the banking and finance sector by providing standardized professional training and educational programmes. Two of the three diploma programmes offered by the institute are in collaboration with prestigious educational institutions overseas.
- **ADNOC Technical Institute (ATI)**, formerly Abu Dhabi National Oil Company (ADNOC) Career Development Centre (CDC), was established in 1978. ATI offers training programmes that meet the needs of ADNOC and its Group Companies for skilled national manpower and to identify young UAE Nationals with a potential for upward mobility. To date more than 2,700 students have completed the graduation requirements from ATI in Process Operations, Mechanics, Electricity and Instrumentation Technology and are all employed at various levels in ADNOC Group Companies.
- **Petroleum Institute (PI)**, which was created in 2001, with the goal of establishing itself as a world-class institution in engineering education and research in areas of significance to the oil and gas and the broader energy industries. PI provides academic programmes leading to BS degrees in various engineering fields and provides continuing education opportunities to professionals in the oil and gas industry.
- **Dubai School of Government (DSG)**, which was established in 2005, is a research and teaching institution focusing on public policy in the Arab world. DSG aims to promote good governance through enhancing the region's capacity for effective public policy.
- **Emirates Aviation College** – Aerospace and Academic Studies – was established in 1991 by the Department of Civil Aviation, initially to provide aviation-related training to private students and corporate organizations.

Special Education

The government of the UAE recognizes the need to support students with special needs. In November 2006, the UAE signed the optional Protocol to the United Nations (UN) Convention on the Rights of Persons with Disabilities and Federal Law 29/2006 guarantees rights for people with special needs. Vocational and rehabilitation centres have been developed throughout the country. In addition, efforts are made to include special needs students in mainstream educational settings. The UAE also participates in the Special Olympics²⁷.

The UAE Federal Government passed the UAE Disability Act to protect the rights of people with disabilities and special needs. This law requires that UAE nationals with special needs have the same rights to work and occupy public positions, have special facilities at airport and hotels, have access to public vehicles and parking, have equitable access and facilities into all new property development projects, etc.

In education, the UAE Disability Act requires:

- Public and private schools must provide equal access to all children.
- No school in the UAE can refuse the admission of a child with special needs (SN).
- Teachers and therapists working with SN students must have a university degree recognized by the **Ministry of Higher Education & Scientific Research** (MOHESR), and a teaching permit issued by the **Ministry of Education** (MOE).
- Schools must not hold back or fail students with special needs.
- Schools must receive the approval of the MOE to charge extra fees to parents for any special education services after.

²⁷ <http://www.uaecd.org/special-education>

[The Ministry of Education](#) (MOE) strategy is to adapt public schools to facilitate special needs education. The MOE has already converted 10 schools, and plans to improve more than 100 schools by 2013.

The [Ministry of Higher Education & Scientific Research](#) (MOHESR) requires that all instruments, machines and equipment expenses needed by its sponsored-students with special needs pertaining to their educational shall be borne by the Ministry according to their health status as per certified original documents from the health authorities and authenticated by the Cultural Counsellor in Washington, DC.

There are many schools providing education for students with special needs. They are non-governmental and at the same time there are special needs schools for the local population receiving government assistance. The list below includes some special needs schools sorted by Emirate:

Abu Dhabi

- Al Noor Speech, Hearing and Development Centre
- Future Centre
- Riding for the Physically / Mentally Impaired
- In addition, a partnership between the government of Abu Dhabi and the New England Centre for Children, a Massachusetts school serving children with autism, established a comprehensive education programme as well as trains UAE nationals to provide services in Arabic.

Dubai

- Al Noor Training Centre for Children with Special Needs
- Dubai Autism Centre
- Dubai Centre for Special Needs
- Dubai Community Health Centre
- Dubai Early Child Development Centre
- St. Andrews International School (British Institute for learning Development)
- Riding for the Physically Challenged
- Rashid Paediatric Therapy Centre
- The Art of Family Consultations Centre

Sharjah

- ABA Centre for Special Needs

Ra's Al-Khaimah

- ABA Centre for Special Needs

UAE Federal Law 29 – Concerning the Rights of Individuals with Special Needs (2006) – seeks to address the issue of discrimination of people with special needs and provide and promote equal opportunities in health care, employment, sport and education. Law 29 adopts a very broad definition of special needs to include people with temporary or permanent incapacity in physical, sensory, mental, communication, educational or psychological abilities. The definition incorporates a range of conditions and impairments that cause learning difficulties. With particular regard to education, Law 29 means that schools, public and private, can no longer refuse entrance to children they deem to have “learning difficulties” or “special needs”. That is, Law 29 introduces compulsory inclusion for private schools in the UAE. While the Law was written in 2006, in 2009 several education

authorities drafted policy and regulation documents that will have direct impact on private education in 2010²⁸.

Historically, private schools in the UAE have accepted or rejected children as potential students for any reason they deemed applicable. This led to a free-enterprise approach to schooling with parents having to shop around their city to find admission for their children. Under Law 29, this free-enterprise approach to admissions will cease. All schools will be required to have children with learning difficulties and special needs in regular classes. Now, there are no acceptable criteria for denying a student's admission other than the school being full.

The inclusion of children with learning difficulties and special needs in mainstream schooling is not a new idea and for more than 30 years governments across the world have tried to include children with learning difficulties into regular schools. But trying to change the paradigm of education to one of inclusion has come with many problems as the impact on schooling is quite impressive, and expensive. It is not just the additional engineering for ramps for wheelchairs, entrance and seating alterations, or the extra equipment and services needed for the deaf and blind. It is the adjustments to curriculum that need to take place to accommodate and address the needs of children with special needs. And, it most probably means a move away from achievement-directed learning to community-based or differentiated learning in order to accommodate the broad spectrum of ability of the children in any regular class.

The introduction of Federal Law 29 has not occurred in a vacuum. The impetus for Federal Law 29 comes from the UN Convention on the Rights of Persons with Disabilities, also of 2006. The purpose of the Convention is to encourage governments to take "appropriate measures" to enable people with disabilities to have access, opportunities and equality. As a signatory to the Convention, the UAE has institute Law 29. Accordingly, the logic of the Federal Law is based on the Convention and begins by taking up the broad definition of Special Needs (Disabled Persons). The Federal Law, as a reflection of the Convention, picks up the directives of the convention in such phrases as: "The State shall guarantee to ensure equality", and "the State shall guarantee to take all the necessary measures to ensure the entitlement of an individual with special needs". While the Federal Law also picks up the challenge in the Convention to establish government committees, the Federal Law makes it absolutely clear that responsibility for implementing this law lies with the Ministry of Social Affairs.

Law 29 is based on the recommendation of the Ministry of Social Affairs and written for the Ministry of Social Affairs to take a lead on implement change. Article 1 makes this clear. While there are other Sections in the Law that refer to services (medical, education, employment, public life) and to the establishment of committees under designated ministries, in each case there is a directive that such committees must make reports to the Ministry of Social Affairs. Thus, other ministries can only act or regulate on the instruction and approval of the Ministry of Social Affairs (Article 37, Article 11 Clause.5, Article 15 Clause 6, and Article 21 Clause 5). Indeed, the Ministry of Social Affairs is given very broad authority to review, inspect, regulate and implement "mechanisms" to fulfil this Law.

On the issue of education, Article 12 reads: "The State shall provide for an individual with special needs equal educational opportunities in all educational institutions..... in regular or specific classes where necessary. ... Special needs do not present an obstacle preventing an individual from applying to or joining any government or private educational institution of any kind." Schools, in implementing these undertakings are specifically charged with

²⁸ <http://www.global-logic.net/articles/Federal%20Law%2029.pdf>

carrying out a number of measures: To provide educational diagnosis of the needs of students; to provide suitable and differentiated academic curricula; to provide teaching assistive devices and technologies; to develop alternative strategies for learning; develop methodologies for educational programmes and plans; and provide in-service training to teachers in areas of early diagnosis and detection of learning difficulties and special needs requirements, as well as providing the latest knowledge and experience for teachers to do their work.

Given that in addition to the provision of services to special needs children, there are something like 15% of children in regular schooling who need help for their learning difficulties, schools are, indeed, challenged to broaden their provision of education services and facilities.

In all this, schools are not left to implement all these changes by themselves. Perhaps the most impressive feature of Federal Law 29 is the introduction of the concept of public-private partnership in advancing the implementation of the Law's provisions. In Articles 9 and 36 the Ministry of social Affairs is charged with licensing non-government institutions in the care, education, training and qualification of individuals with special needs. The Ministry, in cooperation with such institutions can grant them responsibility for the provision of special education programmes, the training of parents and professionals working with children with learning difficulties and special needs. Thus, private companies (institutes and centres) are to be directly licensed by Ministry of Social Affairs to work with schools for training, assessment, implementation of new learning strategies, and to facilitate schools in their provision of special needs and learning development services.

In the foreseeable future, the Ministry of Social Affairs could very well begin inspections of schools to see what services for children are available and what strategies are in place to help children develop at school. Certainly, there are many stories of schools which fail to successfully introduce learning development programmes but there are also many good examples of how inclusion can work. Allowing schools to use private specialist services as part of their education programme is certainly a good proposal and will allow many schools to move more easily into an inclusive approach to education than would otherwise be possible. In reading Federal Law 29, it is to be noted that schools are not ordered to comply with regulations by the Ministry of Social Affairs, or other ministries.

Education reform

Education reform focuses on better preparation, greater accountability, higher standards and improved professionalism. In addition, rote instruction is being replaced with more interactive forms of learning, and English-language education is being integrated into other subjects, such as math and science. The Abu Dhabi Education Council (ADEC), the Dubai Education Council (DEC) and the UAE Ministry of Education (MOE) are each tasked with education reform, while preserving local traditions, principles and the cultural identity of the UAE²⁹.

The national Ministry of Education (MoE) unveiled its new Educational Strategy 2010-20, which it describes as a plan that will allow students to match the highest international standards thanks to a restructuring of the curriculum³⁰.

²⁹ <http://www.uaecd.org/k-12-education>

³⁰ <http://www.english.globalarabnetwork.com/201004025377/Culture/uae-massive-reforms-in-dubai-education-system.html>

Under the strategy 50 separate initiatives are to be implemented, with the aim of developing an education system better placed to ensure that students are best equipped for higher education and the workplace.

The education system will be made more flexible, with a restructuring of secondary education to include elective courses, encouragement for students to take part in extracurricular activities and also be more involved in decision-making concerning their own studies.

In order to gain public feedback on the strategy, Dubai's ruler, His Highness Sheikh Mohammed bin Rashid Al Maktoum, who also holds the offices of UAE vice-president and prime minister, had the 27-page document posted on the prime ministerial website.

Though mainly directed at state schools, the strategy will also have an impact on the private education system in Dubai, which currently serves 85% of all pre-tertiary students, one of the highest ratios in the world.

Nationally, 39% of the 1190 schools currently operating in the UAE are private establishments, with the split between private and public being 467 to 723. In Dubai, this ratio is reversed, with just over one-third of all schools being state provided. Of the 224 schools in Dubai, 79 are part of the public education system, with their curricula set by the MoE. The remaining 145 facilities are private schools that between them teach 17 different curricula, including that laid out by the ministry.

Though private schools generally follow a separate curriculum from state-funded facilities, all schools in Dubai are monitored by the Knowledge and Human Development Authority (KHDA), the state body set up in 2006 to develop all relevant resource sectors in the emirate.

While the reforms are to be applied across the national educational system, in Dubai at least some of these measures are already being practiced

There were strong parallels between the MoE's strategy, which focuses on the needs of students, and what KHDA is aiming to achieve by also concentrating on students as the heart of the education system in Dubai

Quality, in particular at the end of the education process, is at the core of the new strategy, which has as a major objective of improving the skills of students entering higher education. MoE studies have shown that more than 90% of grade-12 graduates that enter UAE higher education require a foundation year of additional classes in order to bring them up to the required levels in a number of key courses, particularly science, mathematics and English.

The planned reforms are intended to improve education at secondary level to the point where students graduating the system can move seamlessly into the state tertiary system, resulting in a saving of time, money and valuable resources. According to some estimates, up to one-third of the teaching budget of the nation's three universities is expended on providing foundation year courses.

For this to happen, the overhaul of pre-tertiary education will have to be dramatic, with students needing to be taught independent learning so they can better adapt to university and the world beyond education.

While the large-scale revamp of the education system is sure to be expensive, the cost to Dubai and the other emirates will be recouped in future years, both in savings from scrapping the foundation year and earnings generated by a more highly educated population.

Schools

A list and review of schools including training centres, colleges and kindergartens is included in the referenced web site³¹.

Post-secondary

Technical and vocational education in the UAE previously had little prestige and attracted few resources before the UAE government's policy on Emiratisation. Now, it is a high priority to develop technical and vocational education, and all institutions have improved their programmes and quality assurance³².

Technical and vocational education is offered at secondary and post-secondary level in the UAE. It is also provided at several colleges where programmes lead to foreign technical and vocational qualifications.

Technical secondary schools

The current public school system includes eight secondary technical schools offering vocational education programmes in business and industrial areas for tenth, eleventh, and twelfth grade students who are male UAE citizens. Technical secondary schools are part of the government education system under the Ministry of Education and, as such, they are subject to regulations of the national system such as school year schedule, national completion exams, curriculum and teacher hiring processes. A separate Department of Technical Education unit of the Ministry is responsible for technical schools.

The secondary technical education system in the UAE has a dual mission:

- to prepare students to enter the workforce directly after school
- to prepare students to continue their education at post-secondary education institutions in the UAE or abroad.

Administration and finance

Budgeting and financial procedures are under the control of the various central government councils composed of the leaders or designates of each emirate. No distinction is made between the personal fortune of Sheik Zayed, reportedly the fifth richest man in the world, and the national treasury. Budgets are routinely drawn up by ministry officials with the aid of consultants and reviewed at different levels. While a system of checks and balances can be identified and lead to moderation in decision-making, the views of the Sheik and of individual national leaders can be more readily incorporated into public policy than is the case with the less authoritarian executive branches in the Western democracies³³.

At the ministerial level, educational issues are the domain of a High Committee including the ministers of education, planning, finance and industry, labour and social welfare, the chancellor of the UAE University, the undersecretary of education, and two MOEY appointees. It coordinates and develops national policies and implementation efforts. A MOEY committee on Regulations and Development drafts policy, budgets and

³¹ http://www.bayut.com/uae_directory/search.html

³² <http://www.britishcouncil.org/learning-skills-for-employability-uae-country-overview-of-vet-system.htm>

³³ <http://education.stateuniversity.com/pages/1611/United-Arab-Emirates-ADMINISTRATION-FINANCE-EDUCATIONAL-RESEARCH.html>

implementation procedures for the High Committee and is composed of the minister and his top five assistants.

The primary focus for the future is to establish and maintain a viable system that keeps pace with international developments and helps students acquire the skills required in a modern labour force. In particular, government strategy ambitiously seeks to introduce the latest information technology at all levels, including a computer for every 10 students at kindergarten, every five students at primary school, every two students at preparatory school, and for every student at secondary school. There are strong advocates for the use of technology but critics also warn of an overemphasis on such tools that can lead to the neglect of traditional learning skills and an emphasis on format rather than content. Cooperation between the public and private sector, which represents a diverse collection of institutions with United States, United Kingdom, Indian, Pakistani, Bangladeshi, Iranian, and Filipino curricula, along with other institutions, is considered to be a necessity for programme success.

Quality assurance, inspection and accreditation

The education system through secondary level is monitored by the [Ministry of Education](#) (MOE). It consists of primary schools, middle schools and high schools. The MOE develops and monitors reform activities, with a focus on standards-based, student-centred education. These efforts include a partnership with National Association of Elementary School Principals in the United States. Activities include:

- Audits of every public school in the UAE
- Evaluations of the system, from individual schools up through the Ministry
- Ongoing professional development of teachers and principals

The MOE is constantly honing its educational strategy to ensure that the programmes developed in its schools comply with international standards, with particular focus on introducing the latest IT resources at all levels. For example, one of the goals is to provide a computer for every ten children in kindergarten, every five pupils in primary schools, every two students in preparatory schools.

Commission for Academic Accreditation³⁴

The Commission for Academic Accreditation (the CAA) is part of the Ministry of Higher Education and Scientific Research of the United Arab Emirates. The authority to license non-federal educational institutions to grant degrees and other academic awards and to accredit their programmes rests with the Ministry, and the CAA has the responsibility of discharging that authority. The CAA developed its first Standards for Licensure and Accreditation in 2001. These have been revised periodically, with the most recent fourth edition published in 2007. The Standards are currently undergoing further revision and the development and publication of associated 'Procedural Guidelines' will assist institutions in addressing the particular needs of Licensure and Programme Accreditation processes. Since it was established and began operating in September 2000, and as of October 2010, the CAA has licensed a total of 66 institutions and has accredited 479 Programmes.

³⁴ https://www.caa.ae/caa/DesktopModules/CAA_Strategic_Plan.pdf

*The Knowledge and Human Development Authority (KHDA)*³⁵

The Knowledge and Human Development Authority is responsible for the growth, direction and quality of private education and learning in Dubai. We are a regulatory authority in the Government of Dubai which supports the improvement of schools, universities, training institutes and other human resource sectors. We co-ordinate with many different partners; students, parents, teachers, the private sector and other Government bodies all play a role in Dubai's education community. KHDA's work is guided by the Government's strategy and carried out in a transparent manner to make sure everything we do benefits our highest priority – our students. Our research ranges from early childhood to adult learning and our findings drive initiatives to ensure that Dubai has an educated and flexible workforce to meet the needs of our fast-changing and globalised world. Publications, along with detailed school inspection reports, provide evidence-based information for everyone involved in education.

KHDA will issue Education Service Permits to all schools, universities and colleges, and training institutes in Dubai. Permits will be required by all institutes wanting to operate in Dubai³⁶. Permits will be issued by the Regulation and Compliance Commission (RCC) at the KHDA. Permits should show fees schedule, permitted grades and/or programmes, inspection category for schools, UQAIB approval for colleges and universities.

An agreement was signed between KHDA and Dubai Department of Economic Development (DED) in May 2009. The DED issues commercial licences for educational establishments, and will now require an Education Service Permit before they do so (or renew one).

From July 2010, KHDA customers can renew, cancel, amend, or apply for new education permits via the newly launched e-services facility on the KHDA website (18 July 2010 press release). This includes both new and existing schools, training institutes, and early learning centres in Dubai.

There appears to be some overlap for tertiary level institutes in Dubai. Universities and colleges in Dubai offering degree level programmes should have those programmes accredited by the Commission for Academic Accreditation (CAA) at the Ministry of Higher Education and Scientific Research (MOHESR).

Higher Education Institutes are universities and colleges that offer degree level programmes such as Bachelor's Master's, and Doctorates. They might also offer training programmes and/or Foundation Level entry programmes before starting a degree course. Usually these institutes offer their own degrees but also sometimes in collaboration with an overseas university.

Training Institutes offer short-term and longer-term courses in the areas of professional development, technical and work skills enhancement, and other vocational related courses. These courses generally do not lead to any sort of degree. *Many training institutes in Dubai (and the UAE) offer distance learning degree level programmes from international and foreign universities and colleges. These may well be valid courses, and could be recognised as such by employers and government authorities, but there are some risks associated with enrolling in such courses.* Some training institutes in Dubai Free Zones might be licensed by the KHDA to offer Higher Education degrees.

³⁵ <http://www.khda.gov.ae/Pages/En/aboutkhdaen.aspx>

³⁶ <http://www.dubaifaqs.com/khda.php>

The Dubai School Inspection Bureau (DSIB) of KHDA³⁷

DSIB was established by Decision 38 of The Executive Council of the Government of Dubai in 2007.

DSIB provides comprehensive information on the standard of private school education in Dubai, which helps to inform improvement planning at school and policy level. This is achieved through a number of approaches, including annual school inspections, parents meetings and focus groups, teachers, parents and students surveys.

Having a view of the standard and quality of education provided throughout Dubai is critical for everyone concerned with education. DSIB provides an inspection service which gives independent, comprehensive assessment of educational standards and school performance for every private school in Dubai.

The standards have been developed and are regularly revised in cooperation with educational practitioners across the diverse curricula represented in Dubai.

Through inspections and the participation of schools in international assessments, DSIB provides KHDA, the Government of Dubai and the wider public with an accurate and detailed view of the quality of school education in Dubai in relation to the educationally best-performing countries in the world.

The International Network for Quality Assurance Agencies in Higher Education (INQAAHE)³⁸

The International Network for Quality Assurance Agencies in Higher Education (INQAAHE) is a world-wide association of over 200 organisations active in the theory and practice of quality assurance in higher education. The great majority of its members are quality assurance agencies that operate in many different ways, although the Network also welcomes (as associate members) other organisations that have an interest in QA in HE. INQAAHE offers members many services, including a Journal, a Bulletin, a Query service, a Good Practice database, and a Professional Qualification in QA.

The Secretariat is hosted at [CAA](#)'s office in Abu Dhabi from 1 July 2012.

Information society

The country has achieved significant accomplishments in building the foundations for an information/knowledge-based society³⁹. By providing an enabling legal and regulatory framework combined with the existence of national data and advanced communications infrastructure, important progress has been made in diversifying the economy away from full dependence on petroleum exports. This has stimulated commercial success among a wide variety of businesses, including global, regional, local SMEs, and locally based international companies such as Thuraya Satellite Telecommunications, and well-capitalized indigenous government supported telecommunication companies, and a world-class free trade zone.

Identified as the regional ICT hub in the region, Dubai is a leading city in adopting technology. The Dubai Technology E-Commerce & Media Freezone (TECOM), which was established in 2000, has a total of 680 companies (from IT and Telecom sectors). TECOM is also home to Dubai Internet City, Dubai Media City, and Dubai Knowledge Village. The UAE

³⁷ <http://www.khda.gov.ae/Pages/En/schoolinspection.aspx>

³⁸ <http://www.inqaahe.org>

³⁹ <http://www.escwa.un.org/wsis/reports/docs/UAE-07-E.pdf>

has fared very well on the front of technology according to the World Economic Forum's Arab World Competitiveness Report 2007. The technological readiness ranks UAE 27th on a world scale in Information and Communication Technology (ICT). The technological readiness, which is a sub-component of the Global Competitiveness Index, measures firm-level technology absorption, laws relating to ICT, FDI and technology transfer, mobile telephone subscribers, Internet users and personal computer. The 2006 Growth Competitive Index, which is a composite of macroeconomic environment, state of public institutions, and technology readiness, ranks UAE 19th in the world with a score of 5.06 and second on the list among the Gulf Co-operation Council (GCC) countries.

The introduction of competition into the UAE telecommunications market and the continued demand for additional services by a sophisticated domestic and expatriate market will continue to grow the market for ICT products and services. The UAE infrastructure and the indigenous companies are world-class and demand the latest technology and services.

In addition to commercial activities, considerable success has been made in integrating information and communications technologies into governmental processes. Most government ministries have interactive on-line presence, and a national initiative is under way to increase the number and breadth range of services available on-line. These efforts have resulted in the UAE being ranked highest among all ESCWA member countries in e-Government readiness by the United Nations, and the highest on the Arab Innovation Index published by INSEAD (Arab Innovation Index, 2007).

The Digital UAE Strategy

While an explicit national plan of action for building the Information Society was published only in 2005, the ongoing commitment of UAE to developing a robust ICT sector is clear. Many international indicators point to the UAE accomplishments in this regard, in addition to the many initiatives undertaken by the government to boost ICT infusion and diffusion in the country. The United Arab Emirates has taken a quantum leap during the past 15 years in the direction of liberalizing its economy and diversifying it away from the oil-based sector. The 2006-2007 Networked Readiness Index, a joint project by INSEAD and the World Economic Forum, which evaluates the relative level of ICT development in 104 countries, ranked the UAE 29th (with an index of 4.42). Sound economic management has contributed to stabilizing the macroeconomic environment and strengthening public institutions. Areas of concern, though, include educational accomplishment, in particular at the primary and secondary levels. These need to be dealt with on a priority basis by decision makers.

In 2007, the Index of Economic Freedom, a joint project by the Heritage Foundation and the Wall Street Journal, ranked the UAE 74th worldwide, the 7th among the Arab states after Bahrain (40th), Jordan (53rd), Oman (54th), Kuwait (57th), Tunisia (69th) and Qatar (72nd). This index measures how well a country scores on a list of 50 variables divided into 10 areas of economic freedom. These include trade policy, banking regulations, fiscal burden, foreign investment codes, monetary policy, and black market. The various measures and incentives created by the government have helped the country move steadily and consistently into the direction of an information/knowledge based society⁴⁰.

While the UAE government is committed to moving the country in the direction of the WSIS recommendations, a formal implementation plan of the WSIS recommendations is not available. There is no formal evaluation plan related to the Geneva Plan of Action, however,

⁴⁰ <http://www.escwa.un.org/wsisis/reports/docs/UAE-07-E.pdf>

among all Arab countries, the UAE ranks second on the ICT-OI 2006 Index, only after Qatar⁴¹.

E-Learning

The UAE places special emphasis on e-learning; the many initiatives undertaken by the federal and local governments are an indication of the importance of this area⁴². In June 2005, e-TQM was established with the objective of facilitating quality education through the creation of an effective environment for e-learning through an electronic information network. Back in April 2004, the Dubai government signed an agreement with Microsoft Corporation for establishing an "eSchool" without papers, books, or pens to be the first eSchool in the Middle East and the second one in the world. In addition, a large number of colleges and universities adopt the hybrid model of learning combining in-class with online modes.

Dubai International Academic City (DIAC) is the world's only Free Zone dedicated to Higher Education. Established in 2007 as part of TECOM Investments, DIAC aims to develop the region's talent pool and establish the UAE as a knowledge-based economy. DIAC is the premier destination for Higher Education in the region, located on a fully-appointed 18 million sq ft. campus with state-of-the-art modern facilities. DIAC currently has 28 Academic institutions from 11 different countries. The DIAC campus is host to over 18,000 students from more than 100 nationalities. DIAC students also have access to over 300 Higher Education programmes⁴³.

Hamdan Bin Mohammed e-University

This has evolved from [e-TQM College](#). It is active as of 1 February 2009⁴⁴.

There are 3 important initiatives in the university related to e-learning:

- CeLEx: The Centre for e-Learning Excellence was launched in 2008 as a subsidiary of the university. The main purpose is to promote excellence in e-Learning in the Arab World through leadership, consulting, research and training services related to e-Learning.
- Hamdan Bin Mohammed Journals: provides opportunities to learn, share and collaborate in the field of Quality Management to both – students of Quality, who aspire to specialise in quality management and working professionals, who are involved in the implementation and management of Quality.
- The e-Learning Grid: Learning Grid is positioned to be a one-stop-hub for the growing community of e-Learning practitioners. Online communities are formed on the three pillars of Information, Collaboration and Transaction. The e-Learning Grid has designed a 6Cs model to cater all the community needs based on these three pillars. They show the results in e-seminars.

All of these initiatives help to develop a good scenario of practices of e-learning and continue improving it.

Vision

- To be the university of choice in the Arab World in shaping the future of education and learning through innovative solutions.

⁴¹ <http://www.escwa.un.org/wsis/reports/docs/UAE-07-E.pdf>

⁴² <http://www.escwa.un.org/wsis/reports/docs/UAE-07-E.pdf>

⁴³ http://virtualcampuses.eu/index.php/UAE#Dubai_International_Academic_City

⁴⁴ <http://www.hbmeu.ae/en/about/profile/>

Mission

- To provide high quality programmes using virtual learning environment, supporting the pursuit of lifelong learning, addressing critical activities of economic development in the Arab World, pioneering in e-learning, providing unique learners experience and growing knowledge and its dissemination through excellence in research and knowledge transfer

Objectives

- To grow and develop a portfolio of innovative and credible programmes that respond to the 21st century modern practices integrating quality and related disciplines.
- To be the catalyst for Growth and Development of Excellence in e- Learning and its applications.
- To encourage growth of scientific research and scholarly pursuits through publication and knowledge dissemination.
- To drive the spread and advancement of knowledge and e-learning in the Arab World through community engagement, government collaborations, institutional associations and alliances and industry partnerships.
- To provide opportunities for lifelong learning and wider access that enhance individuals' competencies and contribute to organizational performance.
- To provide a unique university experience that prepares learners for success as accountable leaders in the 21st century.
- To adapt the latest e-learning technology and support infrastructure that is responsive to learners' changing needs and a key enabler to the e-University mission.

Other initiatives

A number of e-learning services and initiatives have been setup by public and private entities. For instance Etisalat is currently running "LearnOnline" which is a portal dedicated to lifelong learning by teaching languages online. Some of the language courses available are: English (American/British) Spanish, Italian, French, German and Dutch. On the other hand, Dubai eGovernment has setup their own on-line learning portal dedicated to IT related courses spanning topics such as ICDL, Application Development Client/Server, Communications/Networking, and Wireless technologies to name a few.

The *Centre for Excellence for Applied Research and Training (CERT)* runs a countrywide continuing education programme for all nationalities. The programme has been designed for professional development and personal enrichment for people with an eye for continuing education. Initial projects include 100 face-to-face instructor-led courses and approximately 100 on line courses through a Cert website: cert.hct.ac.ae. CERT is the continuing education and applied research arm of a system servicing more than 10,000 students throughout the UAE with more than 40 programmes in engineering, technology, and business. The Centre operates two Technology Parks in Abu Dhabi and Dubai, fostering a number of joint-venture businesses and training operations through more than 20 strategic alliances with multinational technology providers like Lucent Technologies, Honeywell, and GEC Marconi. These Technology Parks were established to foster the application of the latest technology in the UAE and to help develop the infrastructure necessary to support this technology.

The recent Arab World Competitiveness Report published in April 2007 ranks the UAE at the top of Arab countries with its focus on world-class service in areas including finance, health care and ICT. While the UAE excelled in many categories, the report also focused on potential problems with the biggest issues being education and lack of innovation. The UAE

scored poorly on education ranking as low as 112 out of 128 in primary education. E-learning and the infusion and diffusion of ICT in education might help alleviate this problem.

Internets in UAE

UAE has only two telecom operators, therefore the choice people have here may not seem much at first glance, especially since the TRA owns a large percentage in both these companies.

Mobile and broadband internet packages are provided for home consumers by both Etisalat and Du (a service of Emirates Integrated Telecommunications Company).

Internet World Stats⁴⁵ provides statistics on rankings, technology and uptake with UAE achieving 5,859,118 Internet users on June 30, 2012, 70.9% penetration, per IWS.

The UAE has been a regional leader in ICT connectivity; almost all schools, private and public are wired; schools and universities administer exams online; college applications are done online. Possibly an area where the UAE can improve on is the development of community centres: Unfortunately, these are missing and adding them would offer a great service especially to the marginalized segment of the population; mainly the expatriate communities⁴⁶.

A number of international and regional initiatives are under way in the UAE; especially the ones signed through the GCC countries. A leading initiative is the GCC cooperation on the biometric smart ID project. Most GCC countries have adopted the chip-based national ID cards allowing their citizens to use them instead of passports while travelling within the GCC zone. In the UAE, the Emirates Identity Authority (EIDA) is in charge of issuing these mandatory, secure, high-tech cards and was planning to introduce them to residents in 2007-08.

International and regional cooperation are also being facilitated by the UAE Telecommunications Regulatory Authority (TRA). The Telecommunication Regulatory Authority (TRA) was set up by the UAE government decree No. 3 of 2003. The TRA is a regulatory body that oversees the telecom sector and the licensees in the UAE in accordance with the terms of Legislative Decree no.3 of 2003, and implements the instructions of the Supreme Committee for Telecommunications. The Authority is an independent body and its duties include ensuring telecom services are available to all provinces of the country, assuring that the licensed operators fully follow established rules and regulations, protecting the interests of subscribers, developing telecom sector and helping to implement the best and most advanced technologies⁴⁷.

Educational internets in UAE

Rashid IT Education Project (ITEP) was launched in 2000. As well as installing computer labs in all participating schools, and creating a comprehensive cutting-edge curriculum, ITEP also provides an invaluable online educational resource at www.itep.ae. ITEP now provides courses in 40 high schools in the UAE (20 in Dubai, 20 in Abu Dhabi) and over 13,000 students pass through the programme every year. ITEP's trainee pupils achieved 97% success rate in courses in the 2005/06 academic year.

⁴⁵ <http://www.internetworldstats.com/stats5.htm>

⁴⁶ <http://www.escwa.un.org/wsis/reports/docs/UAE-07-E.pdf>

⁴⁷ <http://www.escwa.un.org/wsis/reports/docs/UAE-07-E.pdf>

In line with the current trends to integrate information and communication technologies (ICTs) in education, UAE emphasizes the need to use technologies in all educational levels. This emphasis comes in response to the needs to facilitated learning and teaching, and increase access to learning opportunities⁴⁸.

Every higher educational establishment in a survey (October 2009) has some form of Internet connection, with DSL being the most popular type of connection. 98% have a computer laboratory. The average number of computers in laboratories in each establishment is 280. 97% of higher education students use the Internet at the establishment, and 98% of the teachers have been trained to use ICT for instructional purposes⁴⁹.

The **Vision 2020** programme is one of the reform projects launched by the Ministry of Education in 1998-1999 to improve education in the country. The project underlined strategies to provide schools with the latest instructional technologies and educational resources to promote self-learning with the latest instructional technologies and educational resources to promote self-learning and continues education programmes.

The IT Education Project (ITEP) was also established in 2001 to complement the efforts for providing schools with the latest ICT through installing computer labs in all schools in Dubai and Abu Dhabi as a first stage to be implemented eventually in all other emirates. The project provided all participating schools with high-speed Internet connections and video conferencing facilities. In order to support teachers, the ITEP project established IT Academies for teacher training. Moreover, the project established an online community for learners and educators in the regions to share knowledge, and an online market for offering products from the world leading IT companies.

In addition to that, technology in all colleges and universities in UAE is rapidly becoming a way of life for learners and educators. Classrooms are equipped with various technologies (i.e. computers, projectors, smart boards) and wireless cover giving instant access to the Internet and the World Wide Web.

This access to the Internet provided the base for the development of e-learning. Thus, teachers and learners in the UAE now possess laptops and use them regularly to meet the learning goals and development modes of e-learning.

Copyright law in UAE

Since joining the World Trade Organisation (WTO) and signing the associated *Trade Related Aspects of Intellectual Property Agreement* ("TRIPS agreement") many countries throughout the world have amended or passed new laws on copyright. As part of this process, in 2002, the UAE promulgated a new copyright law titled Federal Law No. (7) of 2002 (UAE) *Pertaining to Copyrights and Neighbouring Rights* ("UAE Copyright Law")⁵⁰.

Copyright Fundamentals

Art 3 of the *UAE Copyright Law* confirms the fundamental principle that copyright protects the expression of ideas not simply the idea. Furthermore the sale of an item embodying copyright such as a book does not transfer economic or financial rights but it will transfer ownership of the physical item, namely the book. Pursuant to Art 4 "no prejudice shall be

⁴⁸ <http://www.ukessays.co.uk/essays/education/education-technology-in-uae.php>

⁴⁹ http://www.tra.gov.ae/download.php?filename=UAE_ICT_Survey_en.pdf

⁵⁰ http://www.olwan.org/attachments/293_Copyright_Law_in_the_United_Arab_Emirates%20Final.pdf

caused to the aspects of protection or the rights prescribed" under the law if the work has not "been filed nor the rights thereof and disposals therein" registered.

Copyright Subject Matter

Copyright subject matter is defined in Art 2 of the *UAE Copyright Law* in much the same way as in many other countries. It covers literary works such as books, computer software, databases, lectures and speeches, dramatic works, musical works, audio, visual and audio-visual works, architectural works, drawings, paintings, sculptures, works of applied art, photographs, maps and derivative works. This subject matter is extended by later sections to sound recordings (Art 18), broadcasts (Art 19) and performances (Art 17).

Economic and Moral Rights

Economic or Financial Rights

The core financial rights (or exclusive economic rights) of the "author and his successors or the holder of the right of the author" are specified in Art 7 to include the right to grant licences for the exploitation of the work, in any manner, particularly for

"reproduction, electronic storage or downloading, public performance etc. Under Art 3 copyright protection will not be afforded to:

- 1) Official documents, whatever the source or target language thereof, including legal texts, regulations, decisions, international agreements, judicial rulings, arbitral awards, and judgments issued by administrative committees of judicial competence.*
- 2) Reports and news of incidents or current events having the character of mere items of press information.*
- 3) Works that have fallen into public domain. Nevertheless, items 1, 2 and 3 of the present article shall be protected, if characterized by innovation in terms of the collection or arrangement thereof or any other effort exerted therein."*

See *UAE Copyright Law*, Art 13. Things are more complicated when dealing with intangible items such as software and this is why major software companies "licence" (as opposed to "sell") software. A licence will determine user rights and in many cases will not allow any further selling of the particular software or copies of it.

Reproduction means according to *UAE Copyright Law*, Art 1: "The making of one or more reproductions of a work, phonogram, broadcast or any performance in any manner or form, including, communication, broadcasting, re-broadcasting, acting a play, transmission, translation, alteration, modification, rental, lending and publication by any means including provision of publication through computers or information nets or communication nets or other means."

Rental of software and audio-visual works is narrowed by Art 8. Under Art 8 the right to rental "will not apply to computer software unless such software is the essential subject of a rental" and "will not apply to audio-visual works unless such rental is prejudicial to the normal exploitation of such works."

Art 18 outlines the financial rights of the producers of phonograms or sound recordings which include the right to prevent any exploitation in any manner without authorisation and the right to disseminate recordings via wire, wireless, computer or other means. Third parties are prohibited from "exploiting such sound recordings by reproduction, rental, broadcasting, re-broadcasting and making available to the public through computers or other means".

Under Art 19 broadcasting organisations have the right “to grant licenses for the exploitation of the recordings and broadcast thereof” and to prevent “any communication to the public” without authorisation. Third parties are prohibited from exploiting broadcasts by “recording, copying, rental, re-broadcasting or communication to the public in any manner”.

Pursuant to Art 17 performers have financial rights to transmit and communicate unfixed performances, fix the performance on phonograms and the right to reproduce the performance fixed on the phonograms. Third parties are prohibited from the “fixation of such live performance on a phonogram for direct or indirect, commercial revenue, rental, transmission or availability to the public on any medium by others without authorization of the right holder”. Art 17 is expressed to apply “to fixation of performances in audiovisual work, by their performers unless agreed otherwise.” This seems to suggest that use of the sound recording in an audiovisual work will not impact on its level of protection.

ICT in education initiatives

Education is the key to competitiveness in the current global knowledge economy. The Ministry of Education in United Arab Emirates recognized the importance of education and is prepared make a long-term investment for developing its educational system and to provide all students free and equal access to education, in order to develop the skills needed to better face the challenges of the modern society⁵¹.

Portal development for the UAE educational system

In United Arab Emirates, SIVCO Romania in partnership with Microsoft, ITQAN (UAE) and ITWorx (Egypt) implemented a national educational portal, representing the world’s largest deployment of SharePoint 2007 servicing over 30,000 students. The portal provides students, parents, administrative personnel of the United Arab Emirates and the general public with online information accessible from anywhere.

Free access to the portal encourages a good communication among the parties involved and, at the same time, sustains the transparent transfer of information. The portal offers a set of applications fit for the dissemination of educational information and services, with potential to offer increased benefits to the community.

The solution is based on Microsoft Connected Education Framework providing an extensible solution, and laying the foundation for support of future developments. The Education Portal is able to interface with a gateway, which exposes MOE and other relevant government organizations to online users from a single access point. Solution architecture follows the Service Oriented Architecture (SOA) design patterns.

Portal solution overview:

- Web-based, Microsoft Connected Education Framework.
- Flexible and extensible, laying the foundation for support of future developments.
- The Education Portal is capable of interfacing with a gateway, which exposes the Ministry of Education and other relevant government organizations to online users from a single access point.
- Stores Enterprise records, such as the schools from UAE, students, Ministries employees or businesses in UAE.
- Solution architecture follows the Service Oriented Architecture (SOA) design patterns.

⁵¹ <http://advancedelearning.com/index.php/articles/c5052/en>

- Solution based on workflows, by using InfoPath forms that are hosted inside of Microsoft Office system client applications, as well as on the server.

The portal stakeholders are:

- Students, parents and general public They have access to on-line information conveniently, consistently, irrespective of their physical location.
- Teachers and Schools staff With the introduction of registration and member services it became possible to facilitate the interaction between students, parents, teachers, school administration personnel. In addition there is the capability to support governance through MOE-School interaction
- MOE staff (access to secure member areas) The Gateway provides a collection of common services and tools that enable MOE departments to deliver e-Government Services on the MOE Portal and other channels.
- Other businesses and the education industry in general.

Support for future extensions to provide collaboration and information services for private organizations and other government agencies.

The Gateway will serve as a channel for government organizations in order to support communication and cooperation among them.

eContent development for the UAE educational system

As a second phase for a national education strategy, in 2008 the IT Department within the Ministry of Education of the United Arab Emirates chose SIVECO Romania as a partner in developing a project for supporting the teaching and learning process in public schools by the use of digital learning objects.

The main objective of the project was to contribute to the development and modernization of the education system and to enhance the use of information technology in the process of teaching/learning in pre-university education.

The educational solution offered by SIVECO Romania was designed as an additional tool for teachers and students, according to a methodology that specifically targets the advantages of information technology in education and maps computer usage to classroom practices.

Results for educational establishments are reported for primary and secondary schools. In addition, the results are separated to show public and private school results.

Virtual initiatives in schools

Public schools in the United Arab Emirates are being upgraded to include significant online opportunities. This initiative is described as being part of UAE Vision 2021 which sees the development of education as being essential. The initiative aims to transform classrooms as well as integrate teachers, students, parents and administrators into a single e-platform and is being introduced in four stages over five years. A pilot of the project, which will include 18 schools covering students from grade six to grade nine, will be launched in September 2012⁵².

His Highness Shaikh Mohammad Bin Rashid Al Maktoum, Vice-President and Prime Minister of UAE and Ruler of Dubai, launched a new smart learning initiative that will transform

⁵² <http://www.virtualschoolsandcolleges.info/news/uae-launches-smart-learning-initiative-schools>

classrooms as well as integrate teachers, students, parents and administrators into a single e-platform⁵³.

The Dh1 billion Mohammad Bin Rashid Smart Learning Initiative is part of the UAE Vision 2021 and will be introduced in four stages over five years.

Launching the project Shaikh Mohammad said the basic development of education was an essential part of UAE Vision 2021 and was a national necessity for sustainable development as the road towards a better future for the UAE begins from the school.

Shaikh Mohammad said that the e-learning initiative was closely linked to the overall e-transformation of all government bodies and institutions, adding that he is closely following up the implementation of the project.

"The project will prepare future generations to face the new challenges of the new world more confidently," he emphasised.

The initiative when implemented fully would create a new learning environment in schools, through introducing 'Smart Classes' in all public schools, providing every pupil with a tablet PC enabled by high speed 4G networks.

The system will also see students, teachers and parents interacting over every aspect of learning. The integration will basically help involve households in the development of education and enable them to make proposals and suggestions. It will also provide parents a firsthand view of how the system works.

Enlisting the goals of the initiative Humaid Mohammad Obaid Al Qutami, Minister of Education, said the project aimed to link students with the global knowledge community and empower them in using advanced technology for learning.

Specialised training is also to be provided for teachers to enable them to operate the system.

The project will be implemented through cooperation between the Ministry of Education and the Telecommunications Regulatory Authority under direct observation of the Prime Minister's office.

OER initiatives in schools

As of May 2011 a statement issued by the MOE said that all of the 425 public schools in the UAE will have e-learning platforms within the next six years⁵⁴.

Only 10 public schools in the country currently boast e-learning platforms but 20 more schools will begin using them by the next academic year starting in September.

The initiative, called e-learning gateway, was set in motion last year by the ministry with the aim of transforming learning into a collaborative and interactive internet-based process.

"Since the initiative was launched last year, 10 schools across the country started using the e-learning platform and benefited greatly," Badryah Yousuf Hussain, IT Director at the Ministry of Education, said.

"By September, a total of 30 schools will be using it and within six years every public school in the country."

⁵³ <http://gulfnews.com/news/gulf/uae/education/public-schools-to-have-smart-learning-scheme-in-four-stages-1.1006863>

⁵⁴ <http://gulfnews.com/news/gulf/uae/education/all-public-schools-to-offer-e-learning-within-6-years-1.802934>

Teachers and students are given usernames and passwords to access the e-learning platform. An extensive repository of 7,000 interactive learning objects covering five core subjects — Maths, Biology, Physics, Chemistry, Geography — as well as Arabic and UAE social studies will be available to the students, which will enable them to research various topics related to their curriculum. The learning material will be in Arabic and English.

Teachers will not only assign work through the platform but also upload assessments of the students.

Infrastructure requirements such as internet connections and computer labs have already been readied for the 20 schools that will embrace e-learning this year.

The e-learning initiative is part of the 2010-2020 development strategy of the ministry, which aims to improve infrastructure at schools and provide them with the latest technologies that enable teachers to play an active role in the classroom by running workshops that are more advanced in terms of the use of modern teaching technologies.

OER initiatives in post-secondary education

The teachers and students of universities in the United Arab Emirates agree “that information technology (IT) could successfully contribute to two ends: creating a blend of classroom materials and delivering those materials in multiple ways”. They believed advantage should be taken of all available tools, including IT. Thus, language schools, universities and Higher Colleges of Technology in the UAE have been making use of online learning “as part of the curriculum” due to the twelve- fold Dubai e-Learning Declaration. With its high-tech digital infrastructure, the UAE has laid the foundation stone for rapid advances in e- learning. In the same vein, the UAE has been holding bi-annual “Education Without Borders” conferences since 2001. Additionally, over the past few years, UAE Zayed University and the Higher Colleges of Technology have organized a series of semi-annual one-day workshops on e-learning. The UAE’s national University (UAEU) has taken the lead in adopting and implementing e-learning⁵⁵.

E-learning or online learning usually has two modes; namely asynchronous mode and synchronous mode. However, universities in the Gulf region have adopted both these modes of e-learning, in Linda Harasim’s term the first and second types of e-learning; namely Adjunct and Mixed modes. Many UAE colleges prefer having a merger of online teaching (asynchronous or synchronous) and onsite teaching (face-to-face) teaching.

Blended model

The blended model of delivery is “delivering educational materials via multiple means, including textbook, online Learning Management Systems, the Internet, the Intranet, and CD ROM”. Having constructed Dubai Internet City, Dubai Emirate hopes to take the lead in IT in the area, reflecting the stress on IT and English skills in the education of the UAE.

Since 2003, online components have been added to the courses at the universities across the UAE. By way of example, in the American University of Sharjah dozens of instructors have adopted the blended format as their teaching paradigm. “In fall 2005, the university established “ilearn,” a unified platform for online learning, where all university subjects automatically receive space for pedagogical interaction”.

Moreover, the students from the Higher Colleges of Technology (HCT) can use English on the Internet since the medium of their instruction is English, as clearly stated in the policy outline on the College website. English Language teaching in the HCT supports the

⁵⁵ http://conference.pixel-online.net/ICT4LL2012/common/download/Paper_pdf/421-ELS13-FP-Sarkeshikian-ICT2012.pdf

objectives of the HCT mission statement so that the graduates “have the linguistic ability to function effectively in an international environment”.

General lessons

e-Learning and the use of ICT, of late, has been witnessing an unprecedented expansion as an opportunity for higher education. This expanding alternative mode calls for ensuring and imparting a sound and qualitative education. Studies have made an attempt to investigate the issues related to the quality dimensions of e-learning and results revealed the presence of both strengths and weaknesses in the e-learning system⁵⁶.

It is interesting to note, that e-learners have expressed diverse opinions with regard to administrative issues, instruction materials, instructors’ support, viper sessions (VIPER, Voice Internet Protocol Extended Reach is software which helps interactive learning through the Internet) , grading and assessment. The findings of the studies further demonstrate that if the concept of e-learning is imparted with a better approach and perspective, the reach will be phenomenal.

Notable practices

Revenues from sales of eLearning products in the Middle East will reach \$560 million in 2016, driven mostly by extensive content digitization efforts, as well as large-scale deployments of tablets and smart learning tools across the education systems throughout the region⁵⁷.

Ambient Insight’s Middle East Market for Self-paced e-Learning Report identifies the most lucrative revenue opportunities for suppliers, such as the thriving private school market and the demand for digital English language learning content. The United Arab Emirates, Kuwait, and Jordan have the highest percentages of private schools in the world at 65%, 46%, and 42%, respectively. Private schools are avid buyers of eLearning content, tools, and platforms.

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14. "The Index of Economic Freedom, 2006" The Wall Street Journal, Heritage Foundation. <http://www.heritage.org/research/features/index/countries.cfm>

Web resources

- [ADEC Abu Dhabi](#) (Abu Dhabi Education Council)
- [ADEC Abu Dhabi](#) (Abu Dhabi Education Zone)
- [Dubai Academic City](#) – a collection of schools and tertiary institutes in Dubai.
- [Dubai Knowledge Village](#) – a collection of tertiary institutes and educational services in Al Sofouh, Dubai.
- [Education authorities in UAE](#) – list of educational zones for each emirate
- [KHDA school licensing](#) – KHDA to license all schools in Dubai from January 2008
- [Ministry of Education in UAE](#)
- [Ministry of Higher Education and Scientific Research](#)
- [Private tuition in Dubai](#) – information, not a list of tutors
- [School operators in Dubai](#) – list of companies that operate schools and nurseries in Dubai and UAE
- [Teaching in the UAE](#) – information for teachers
- [Tuition fees in Dubai schools](#)
- [Schools in Dubai forum](#) - for Dubai and UAE schools discussions (and anything to do with education and teaching in Dubai).
- [Special Needs Dubai](#) – discussion topic about Special Needs children in Dubai with some resources