According to the International Telecommunication Union (ITU), Internet penetration in the Arab world in 2002 stood at a mere 3% (of the total population of 280 million Arabs). ITU predicts that by 2005, barely 10% of persons in the Arab world will be online. The United Arab Emirates (UAE) has posted the best results of all Arab countries in terms of its transformation into a connected society, followed by Bahrain and Qatar. The main factor behind such an increase in Internet penetration in the UAE is the aggressive policy followed by the Government, that has made tackling the Internet literacy in the country one of its top priorities. (Gulf News, 23/10/2003, http://www.gulfnews.com)

Jordan Telecom and TE Data, the leading Egypt-based data communications and Internet service provider, signed an agreement for the provision of high-end Internet hub services. Under the agreement, TE Data will offer its Internet services to regional enterprise customers in Jordan. The agreement coincides with Jordan Telecom's mission to attract foreign investment and make Jordan a regional hub for state-of-the-art information and communication technology services. (Middle East Company News, 22/10/2003, http://www.ameinfo.com)

Eight out of ten offers submitted to the Algeria Telecom Regulator (ARPT) for the award of Algeria's third mobile phone license have fulfilled the pre-qualification requirements. Pre-qualified bidders include: Deutsche Telekom/Detecon, Orange, Spain's Telefonica Moviles, Turkcell, South Africa's MTN, Maroc Telecom, Kuwait's MTC and Wataniya Telecom. The 15 year license (renewable for periods of five years) is expected to be awarded in early 2004 and the third network could be operational in the second half of 2004. The financial advisors for the Algerian authorities are Rotschild Conseil International. (Reuters, 24/10/2003)

The Government awarded its first private GSM license to the Lebanon-based Scancom group on October 31, 2003. Scancom placed a winning 12.75 million Cyprus
pound (US$25.5 million) bid for the 20-year concession, after the remaining bidder, Greece’s Cosmote withdrew from the auction. The licence covers the Southern half of Cyprus, the northern half being covered by two Turkish networks. (Various Sources, 31/10/2003)

Jordan

Jordan’s Telecommunications Regulatory Commission (TRC) has issued a public notice containing the proposed terms and conditions for the issuance of a third mobile license in the country. The third mobile license will have a validity period of 15 years, similar to that of the incumbent operators, Fastlink and MobileCom. The third mobile licensee will not be restricted to any explicit standard. The only condition on the technology to be used is that it must be digital, approved by an international standards body, and deployed commercially. To make the new license attractive to interested parties, the TRC will allow the three existing operators, Fastlink, MobileCom and Jordan Telecom, to share their infrastructure to reduce the time needed to build the network for the new licensee. The TRC foresee to award the new license in Spring 2004. (Arab Advisors Group, 11/11/2003, http://www.arabadvisors.com/)

Lebanon

The Higher Council for Privatization in Lebanon has launched simultaneously an action and tender for the privatization of the mobile telephone sector in Lebanon. If the government deems the auction bids to sell the 20 years licenses too low, a contract tender will be issued for the networks, under which an operator will manage the networks for the government and pay 40% of its annual revenues to the state. Companies prequalified to bid have been offered one of the three options: to bid outright for the licenses, to bid for a three-year management-only license, or to bid for a 20-year license. (Various Sources)

Energy

Regional

The project to interconnect the electrical networks among Egypt, Iraq, Jordan, Lebanon, Syria and Turkey (EIJLST) will pass another milestone by the end of the year, when the Syrian-Turkish link comes into operation. The Syrian-Turkish link consists of a 400-kV line stretching 60 km between the northern city of Aleppo and the Syrian-Turkish border. The planned grid connection between Syria and Lebanon will enable the transfer of electricity via the 400-kV line running from Damascus to the city of Ksara. Another 400-kV transmission line is still under construction between Aleppo and the Iraqi border via Tayem, and from Jandar to the Iraqi border via Palmyra and Tayem. Turkey is also set to interconnect with the Iraqi grid by 2005. So far, the only active EIJLST interconnections are the links between Egypt and Jordan and between Syria and Jordan. (MEED, 17/10/2003, http://www.meed.com)

Construction work on the Syrian-Lebanese gas pipeline recently resumed and is expected to be completed by May 2004. The 64-kilometer link will carry 1.5 million cubic meters of natural gas per day to the Beddawi power plant near Tripoli. The move will save Electricité du Liban (EDL) around US$90 million per year in energy costs. In the second phase, to be completed by 2005, the Lebanese Ministry of Energy and Water will extend the pipeline from Beddawi to the country’s only other gas-fired plant, Zahrami, and increase the daily import of natural gas from Syria to a total of 3 million cubic meters. EDL will save, through the second extension, a total of US$200 million per year by generating electricity with natural gas. (Daily Star, 28/10/2003, http://www.dailystar.com.lb)
Tunisia and Libya plan to establish a joint company, Jointgaz, to operate a gas pipeline. Jointgaz will have its headquarters in Tunisia and is the result of an agreement between the state-owned Tunisian Electricity and Gas Company (STEG) and Libya's National Oil Corporation (NOC). Jointgaz will operate a 275 kilometer pipeline, allowing two billion cubic metres of natural gas per year to flow between the Melilla area of Libya and the southern Tunisian city of Gabes. (Agence France Presse, 18/10/2003)

Algeria

The Algerian Government is considering plans to export up to 4GW of electricity to Europe through a power line project that is to link Algeria with Spain and Italy. The project calls for laying two power lines alongside two undersea gas pipelines under construction between Algeria and Spain and between Algeria and Sardinia. The lines should connect with the European network and carry power to northern Italy. The project with Spain is being studied by Algerian power officials, Sonatrach and Sonagas, and Spanish grid operator Red Electrica. The project would be the first interconnection between Africa and Spain. The Algerian Government has asked the European Union, and Spain in particular, to support the project. (Platts Commodity News, 07/10/2003, http://www.platts.com)

Egypt

The Egyptian Ministry of Electricity and Energy has identified 11 locations throughout the country to set up new power plants in order to boost the country's power generating capacity to 31,000 MW by 2012. About 19,620 MW should be generated by thermal power plants and the rest by hydropower plants and wind farms. Some 27 billion Egyptian pounds (US$4.4 billion) are phased to be invested in new power plants during the 2007-12 five-year plan. Of these, 18 billion pounds (US$2.9 billion) should be allocated by Arab and international financial institutions through soft loans. The state-owned Egyptian Electricity Holding Company also plans to invest approximately US$921 million into various electricity projects during the fiscal year 2003-04. (Al-Ahram, 06/10/2003, http://www.ahram.org.eg)

Lebanon

The Lebanese Council for Development and Reconstruction and the Energy and Water Ministry launched an international bidding process last week to build the National Center of Electronic Control (NCEC). The NCEC will allow Electricité du Liban's (EDL) engineers to monitor the various electrical stations scattered throughout the country through a computerized system rather than through the phone as it is currently done. This should allow EDL to distribute electricity more efficiently, supply areas that are lacking electricity and avoid blackouts. This computerized system should generate yearly savings of up to US$75 million. The new center would also allow the Lebanese electrical network to be linked to the regional high-voltage network, which includes Egypt, Turkey, Syria and Jordan. (Daily Star, 17/10/2003, http://www.dailystar.com.lb)

Morocco

Spain's Red Electrica will double the power exchange capacity between the Spanish mainland and Morocco from 400MW to 800MW by the end of 2005. The project includes three new 28km-long power cables, to run parallel to the existing link between Tarifa in Spain and Fardioua in Morocco. The reinforcement of connections is part of a project aiming at increasing electricity exchange among West Mediterranean countries, and improving security and reliability of energy supply. (Various sources, 28/10/2003)
Transport

Lebanon

For the first time in 26 years, Lebanon's Middle East Airlines (MEA) reported net profits of US$3 million in 2002. This is the result of a reform plan that began in 2001, which reduced MEA's operational costs by US$25 million and increased revenues by US$20 to US$250 million through improved productivity and growth. The Government is considering whether to privatize MEA, but privatization is not scheduled for anytime soon. (Agence France Presse, 03/10/2003)

The Port of Beirut is preparing to tender the management and operation of its container terminal. The tender, which was supposed to be launched at the end of September, has been delayed due to modifications in its financial and technical specifications. The plan is to tender the terminal to a private operator for a period of ten years, with an option to extend the contract for another five years, if the port is not privatized in the meantime. The bidder is expected to pay a US$3-million performance bond valid throughout the duration of the contract. The US$150 million container terminal, built three years ago, has remained unused due to the pullout of its former operator, the Dubai Port Authority. (Daily Star, 04/11/2003, http://www.dailystar.com.lb)

Morocco

Morocco is building a new port east of Tangiers, Tanger Méditerranée, to gain a part of the burgeoning regional transshipment market. Construction works for the first phase of the port are worth €225 million. Works started in June 2003 and are being carried out by France’s Bouygues Construction and Italy’s Saipem. The Tangiers-Mediterranean Special Agency has invited expressions of interest to operate the container quay that will be the largest element in the new Port. (Economist Intelligence Unit, 04/11/2003)

Water/Solid Waste

Algeria

The Algerian Energy Company (AEC), which is owned in equal shares by Sonatrach, the state energy company, and Sonelgaz, the state power utility, has selected the consortium Ionics (US) and Japan’s Mitsui&Cö for a 25-year seawater desalination build-own-operate contract. Under the BOOT contract, the consortium is required to form a joint-venture with AEC and Algérienne des Eaux (ADE) to finance, build and operate the plant. The US$225 million capital investment will be financed by a combination of equity and non-recourse debt. Ionics will hold 70% of the project company’s capital, AEC and ADE will provide the remaining 30%. The initial water tariff will be US$0.82 per cubic meter, subject to adjustment pending the completion of debt financing. Ionics will design and supply the seawater reverse osmosis desalination system, and operate the facility over the 25-year contract period. The take-or-pay water supply contract will be guaranteed by Sonatrach. The desalination plant, to be located near Algiers, will have a capacity of 200,000 cubic meters per day of drinking water. Construction will take approximately two years. The plant will be the largest membrane desalination facility in the region and one of the largest of the world. (Various Sources)

Egypt

The Italian AMA Arab Environment Company (AAEC) has become the third company to win a waste management contract as part of the Greater Cairo cleanup project. AAEC will be in charge of cleaning up North Cairo's seven districts, an area with two million inhabitants which produces 1,500 tons of garbage daily. AAEC's 15-year contract is worth LE52 million per year (US$ 8,5 million) and includes waste collection
from houses, cleaning and washing streets, collection and proper disposal of medical waste, management of the compost factory, and establishment of a sanitary landfill. The service is expected to start by 1 December, 2003. (Al Ahram weekly 23/10/2003, issue no. 661, http://weekly.ahram.org.eg/2003/661/index.htm)

**Jordan**

The Ministry of Water and Irrigation has awarded a US$125-million Design Build Operate (DBO) contract with US companies Morganti Group Inc. and Ondeo Degremont to implement the Zara-Má water project. The project, expected to be completed within 26 months, entails the construction of a 40 km water pipeline with six pumping stations and a desalination plant to supply Amman with an annual capacity of 38 million cubic meters of drinking water. It is intended to boost water supplies to the country’s capital Amman by 40%. The US Agency for International Development (USAID) will provide a grant of US$104 million for the project, and the remaining US$21 million will be paid by the Government of Jordan. (various Sources)

**Bulletin**

**EU/Regional**

The MEDA funded Euro-Mediterranean Network of Investment Promotion Agencies (ANIMA – www.animaweb.org) held its 2nd conference from 22 to 24 October in Marseilles, France to take stock of results achieved within the first phase of the project. Phase 1 of ANIMA included capacity building operations, conferences, a study trip, and business events. ANIMA is part of the Regional Industrial Co-operation Programme. (Euromed Synopsis 246, 30/10/2003, http://europa.eu.int/comm/external_relations/euromed/news_interviews.htm)

The European Commission on October 15 tabled proposals to establish a Euro-Med Foundation for the Dialogue of Cultures, a Euro-Med Parliamentary Assembly, and a fully-fledged subsidiary of the European Investment Bank. The proposals are part of the preparations for the meeting of Foreign Ministers from the Euro-Mediterranean area which is scheduled to take place in Naples, Italy, on December 2-3. (External Relations, Weekly Digest, 9-15/10/2003, http://europa.eu.int/comm/external_relations/newsdigest/00wn.htm)

The Euro-Mediterranean Transport Forum held its 4th meeting on 28 October in Brussels. The opening session gave an overview of Transport Co-operation under MEDA and plans for defining a Euro-Mediterranean Transport Network to be linked with the Transeuropean Transport Network. Ongoing Euro-Mediterranean Transport Co-operation were also presented and discussed, including MEDA bilateral co-operation, the MEDA funded Euromed Transport Regional Programme, and the EU INCO-MED programme for research and technology. (Euromed Synopsis 245, 23/10/2003, http://europa.eu.int/comm/external_relations/euromed/news_interviews.htm)

The Sub-Group on Maritime Policy, Ports and Short Sea Shipping, which is part of the Euro-Mediterranean Transport Forum, held its second meeting on October 20, 2003 in Brussels. Participants discussed maritime safety and security, port reform and the computerization of ports, including customs services. The Sub-Group also agreed to promote Short Sea Shipping in the Mediterranean area, and to set up training programs on the transfer of know-how between the EU and the Mediterranean Partners on Port Reform Issues and Short-Sea Shipping. (Euromed Synopsis 245, 23/10/2003, http://europa.eu.int/comm/external_relations/euromed/news_interviews.htm)
EIB/FEMIP

The President of the European Investment Bank (EIB), Philippe Maystadt, and the EIB Vice-President in charge of operations in the Mediterranean Partners, Philippe de Fontaine Vive, inaugurated in Cairo on October 1 the EIB’s new regional office. This is the first EIB office in the region and it will serve not only Egypt, but the whole Middle East. The new office has been established in the framework of the EIB’s Facility for Euro-Mediterranean Investment and Partnership (FEMIP), which has provided over €1.65 billion in new loans in the 11 months of its existence. (EIB Press Release, http://www.eib.org)

Regulation of E-Commerce in Egypt

by Ahmed Farouk Ghoneim,
Assistant Professor, Faculty of Economics & Political Science, Cairo University

Egypt, like many other countries that find themselves in the early stages of E-Commerce, has a regulatory framework that defines its business environment according to the needs of the “old economy”. E-Commerce, however, requires the adaptation of existing laws, rules and regulations to new economic circumstances, a process that often begins with the creation of a legal framework to regulate online business. Establishing the required institutional infrastructure for E-Commerce is a challenging task. Difficulties often arise from the interrelation between the rules and regulations governing E-Commerce and the rules and regulations of other domains, in particular the telecommunications and financial sectors which are crucial to the functioning of any E-Commerce system.

A Comprehensive Law for E-Commerce: The Egyptian government has undertaken several initiatives to enhance E-Commerce in the country, including the establishment of an E-Commerce Committee in October 1997; a ministerial decree to develop E-Commerce legislation; and the launch of a National Telecommunications and Information Technology Plan. This article argues that these initiatives are insufficient to provide an efficient institutional infrastructure that is capable of handling the promotion, governance and diffusion of E-Commerce. In particular, Egypt faces a number of legal problems such as the legal enforceability of electronic documents, the lack of verifiable means for identities and transactions, controlling anonymity, and providing a balance between privacy and national security.

Generally speaking, countries have two alternatives to deal with the legal and institutional requirements of E-Commerce. They can either opt for a comprehensive law that regulates all issues related to E-Commerce, an option which countries such as

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1 This article is extracted from the forthcoming paper The Role of Government in Electronic Commerce Diffusion: The Case of Egypt by Ahmed F. Ghoneim, Sherine F. Ghoneim, and Sherif Kamel (2003).
2 Ministerial decree number 2 for 1999, Ministry of Trade and Supply.
4 For the pervasiveness of such problems see Whinston, Andrew, B. Dale O. Stahl and Soon-Young Choi (1997), The Economics of Electronic Commerce, Indiana: Macmillan Technical Publishing.
India, Malaysia, Canada and Germany have chosen\(^5\), or they can choose to pass specific legislation as E-Commerce develops, an option chosen, for example, by the US. In the case of Egypt, the available documented procedures do not explain which of these two systems the country intends to adopt. While some documents seem to indicate that Egypt has chosen the first option by deciding to have a comprehensive law for E-Commerce and one for the electronic signatures, the fact that the former lags behind the latter, seem to indicate that Egypt has also opted for the second option.

Privacy and Anonymity in Egypt: Privacy is an area of E-Commerce that requires creative legislation. The penal law in Egypt is very severe with regard to privacy violations. In the banking sector, for example, information cannot be shared among banks without the consent of the customer. An E-Commerce legislation addressing privacy must thus be carefully drafted to take into account Egyptian principles, yet recognizing how those principles may conflict with concerns over national security and E-Commerce legislation in other countries. The current draft E-Commerce law preserves privacy\(^6\).

Authentication: While the draft E-Commerce law does not include the authentication issue, the latter is dealt with in the draft electronic signature law. A certificate authority (CA) has not been identified in the law, but as the wording of the law reveals, a number of national CAs has been allowed for. Still, the criteria for choosing such CAs are not specified, nor is it clear if CAs would be governmental or private institutions. The only aspect that is clearly identified is that their operation will be subject to the approval of the licensing agent, the Organization of Information Technology Development.

The inclusion of the authentication issue in the draft electronic signature law instead of the draft E-Commerce law seems surprising as the E-Commerce law should be more comprehensive than the one for electronic signatures. Moreover, the authentication issue deals with aspects not necessarily related to electronic signatures such as the identification of websites. In all cases, and because of the complications inherent in securing the electronic transfer of information, the Egyptian government should consult experts in the area of authentication and software security.

Encryption: The Egyptian draft E-Commerce law contains a provision on encryption, though it defers all of its details to the executive decree, with the exception of identifying explicitly the governmental third party that will be responsible for archiving the encryption keys\(^7\). Hence, the Egyptian law preserves the secrecy issue but no assessment of the mechanism of ensuring the encryption process can be provided as it is contained in the executive decree, which is yet to be issued. The challenge the Egyptian government is likely to face, also arises from the relative lack of human and physical resources that are capable of handling such issues.

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6 Provision 17 asserts that it is not allowed for any agent to keep personal data related to a customer after the transaction is ended. Moreover, it is not allowed to exchange personal data without a written permission of its owner.

7 The mechanism of encryption, the question which CAs can issue certificates, the process of licensing the CAs, and the question whether private CAs can be involved in this process or not, are all issues that are left to be decided in the executive decree.
Telecommunications: E-Commerce is dependant upon an infrastructure that delivers high quality and high speed connections. The Telecommunications Law determines the deployment of advanced services, the extent of universal service, the awarding of licenses to telecommunications providers and the scheme for the awarding of federal government spectrum. The telecommunications law is therefore essential for the success of E-Commerce and should be given as much attention as any E-Commerce legislation.

Banking: Egypt suffers from a disparity between traditional local banking and international banking practices. For example, a paper system is still utilized to perform clearinghouse functions even though an electronic system would be more efficient. The current paper based banking system deters E-Commerce. In general, banks do not accept payments or transactions online even though they are not legally refrained from doing so. The general reluctance of Egyptian banks to facilitate on-line credit card transactions is partially due to the lack of legislation to regulate the process. Limited Internet banking was attempted, but banks reported incidents of fraud.

Taxation: Various government efforts to tax commercial activities on the Internet have resulted in numerous instances in which even the basic definition of sales and consumption tax regulation has been found inadequate. If we attempt to apply tax laws to E-Commerce, the first task at hand is to determine which digital products are taxable under which tax mechanisms. Existing tax laws will for instance apply to physical goods sold over the internet. However, intangible goods (digital products) will necessitate new definitions. The challenge is to design a tax system that is capable of handling such difficult issues and preventing favoring one mode of trade over another to escape taxes, while at the same time enhancing E-Commerce. Any regulation should be analyzed through a policy framework that ensures that online conduct is treated in a manner consistent with the way offline conduct is treated, i.e., in a technology-neutral manner.

The Egyptian draft E-Commerce law mentions explicitly the tax treatment of the on-line vendors and advertisements on the Internet. However it defers the tax treatment of electronic transactions to the executive decree and does not offer any solution on how to deal with goods and services traded via E-Commerce. It should nonetheless be mentioned that estimates of lost tariff revenues in Egypt, due to digital products, are likely to be minimal and should not exceed 0.1% of total import duties and 0.01% of the total governmental revenue.6

The Role of the Private Sector: The private sector is confined to act as internet service providers (ISP). Recent statistics show that the number of Internet users in December 2001 exceeded 850,000 users, who were served by 90 mostly private and national ISPs (up from 8 in 1996).

Evaluation of Sector Performance: The extent of Egypt's E-Commerce readiness is clearly governed by the degree of availability of information and communications technologies and the institutionalization of an E-Commerce enabling environment. Although computer penetration and access to the Internet has been growing steadily over the last years, it will take some time until a critical mass is achieved. Also, legislation governing business and financial transactions, as well as protecting consumer rights cannot be taken for granted. So far, E-Commerce in Egypt has been
limited, given the small number of Internet users and the relatively prohibitive information and telecommunications costs.

The difficulties surrounding E-Commerce in Egypt have more to do with the traditional ways of conducting business than with legal barriers. Barriers to E-Commerce continue to exist because Egypt is a cash-based society and paper transactions are the dominant mode of conducting business. This is highlighted by the relative small number of credit card owners in Egypt, estimated to be between 200,000 and 350,000. Even people who have credit cards are not necessarily able to use them online as most Egyptian banks do not authorize the use of credit cards for Internet transactions. The general reluctance of Egyptian banks to facilitate online credit card transactions is partially due to the lack of firm legislation to regulate the process. Payment via Internet has proven to be one of the largest stumbling blocks. Although products are advertised and promoted over the Internet, the system still lacks a reliable, commonly accepted way of exchanging money electronically.

This analysis has argued that while E-Commerce in Egypt is still in its infancy, the nascent state of development does not appear to constitute the main obstacle that is affecting the performance of the industry. Several converging causes are affecting the development of E-Commerce in Egypt. The most prominent are: (i) the lack of an independent regulatory body, (ii) the inflexibility of Egypt’s secrecy laws, and (iii) broad legislative concerns, such as the need to make existing business laws and regulations consistent with the demands of E-Commerce. Policy makers in Egypt will need to seriously address these issues if E-Commerce is to flourish in the country.

Upcoming Seminars and Training

Energy

Organizer: Spintelligent Ltd
Location: Tunis, Tunisia
Date: December 3-5, 2003
For more information: http://www.esi.co.za/events/napic2003/

Information and Communications Technology

Digital Divide, Global Development and Information Society
Organizer: International Research Foundation for Development
Location: Geneva, Switzerland
Date: December 8-10, 2003
For more information: http://www.irfd.org/events/wf2003/intro2.html

PPI/PPP

Partenariats Public-Privé : Quelle est la nouvelle donne? Quelles opportunités? Quelles perspectives ?
Organizer: Edition Formation Entreprise
Location: Paris, France
Date: 24-25 November 2003
For more information: http://www.efe.fr

Water

International Water Demand Management Conference
Organizer: Jordanian Ministry of Water and Irrigation
Date: May 30-June 3, 2004,
Location: Amman, Jordan.
For more information: http://www.wdm2004.org

Publications and Articles

Arab Human Development Report 2003
Millennium Development Goals: A compact among nations to end human poverty
Author: UNDP
Publication date: October 2003
To download the complete document: http://www.undp.org/hdr2003/

Regulation by Contract: A New Way to Privatize Electricity Distribution?
Authors: Tonci Bakovic, Bernard Tenenbaum and Fiona Woolf (World Bank)
Publication date: October 2003

Conclusions of the Euro-Med Economic Dialogue
Author: European Commission
Publication date: October 2003
For more information: http://www.europa.eu.int/comm/external_relations/euromed/etn/red/index.htm

The Mashrek Countries and the European Union
Author: Eurostat
Publication date: October 2003
For more information: http://www.europa.eu.int/comm/eurostat

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