

## *“e-Content a main pillar toward e-Tunisia”*

How would you define the meaning of e-Content in your country in terms of its true meaning and practical implication?

E-Content means multimedia, web or mobile products or platforms focusing citizens, communities or businesses with quality services. E-Content development in Tunisia is crucial. In 1998, the country started mobilising local and international communities on ICT issues. During Geneva'2003 and Tunis'2005 World Summit for Information Society, governments, businesses and NGOs were committed on ICT development issues. E-Content development, accessibility, inclusion, digital opportunities were the major issues. Since then, Tunisia has been working hard to develop ICT accessibility and e-Content locally and follow up WSIS action plan regionally.

### factfile

Population: 10 Million  
Internet connections: 300 000  
Internet users: 24%  
Mobile connections: 82%  
Household having TV: 98%  
Household having PC: 20%  
Websites hosted in Tunisia: 8000  
Number of universities: 13  
Number of faculties and high schools: 175  
Literate population: 80%  
Population within educated process: 30%  
Population: 30% under 20, 50% between 20 & 40, 20% over 40

## 5 pillars

### *of e-Content development in Austria!*

- ↳ Enabling environment
- ↳ Education
- ↳ ICT infrastructure
- ↳ Good practices
- ↳ Tunisia strategy stands infrastructure, education, e-Content and enabling environment for e-Content development and ICT sector in general

**Q** What is the current status of e-Content in your country - across all industry and aspects?

Software customized solutions development and integration of services are made by local companies. In some common niches (e-Banking, postal services, social security, budgeting, municipality, healthcare, workflow, embedded-software, human resources, geographic positioning, ID management, etc) local products are competitive. Common software packages (ERP, CRM) are generally imported. Local web and mobile content services are moving rapidly.

**Q** What area of e-Content is best developed in your country? For example, e-health, e-biz, e-culture, e-gov, e-entertainment, e-learning, e-science, or e-inclusion.

e-Content industry in Tunisia concerns all areas. The best e-Content were developed for business (e-Commerce, e-Payment, e-Banking, e-Post, e-Tourism, professional e-Services), e-Gov (social security declaration, tax clearance, municipality services, health appointments, public utilities services payment, one stop bureau for foreign trade clearance, one stop bureau for business set up, student admission and related services such as housing, transportation, scholarship, public services portals), e-Culture (cities websites, roman mosaics, arts), e-Health (e-RDV, medical information), e-Entertainment (games players communities, festivals, travel agencies sites), e-Inclusion (communities and NGOs sites focussing handicapped, old people, females, students, rural, employment, handicrafts, VSMEs), e-Learning (EduNet, the virtual school portal, Virtual University portal, scholar support sites, languages and arts teaching DVDs).

**Q** Which sector in your country is more aggressive in developing e-Content - Business or private sector; government or civil society?

Software applications, e-services, m-

services and multimedia services are mainly developed by the private sector while contents are produced by their owners (public services, NGOs, enterprises, scientists and artists).

**Q** How would you describe the gradual progress of development of e-Content in your country in terms of its rise? Any timelines ?

Tunisian e-Content industry started in the 1980s. The public sector used to be the major player. Since 2002, e-Content media is moving from classical software applications and printed press to multimedia, web and mobile services. The contribution of ICT sector to GDP moves from 3.5% on 2002 to 10% on 2008 and should reach 11% by 2009.

**Q** Can you list the major initiatives, which influenced and aggravated the development of e-Content in your country?

Enabling environment, capacity building and education are the main pillars of e-Content development. Since 2000, the necessary legal framework (e-Payment, e-Commerce, intellectual property protection, e-Certification, information security, telecommunication regulation, electronic banking compensation and PPP) was issued and specialized agencies created.

ICT infrastructures pay minimum taxes. Special incentives are provided for ICT investments. PCs for families at subsidised rates have been made accessible to low and medium wage citizens. Techno parks are stimulating innovation and encouraging enterprises while there are large number of cyber cafes and ICT centres for children.

Tunisia is served by a high speed optical fibre connecting all cities. There is broadband facility available for key businesses sites, universities, hospitals, and strategic services. Wimax, ADSL, private high speed virtual networks for data and voice are available at reasonable rates.

ICT education is generalized to all disciplines. The country aspires to connect all schools across the country with high speed by the end of 2009. Basic ICT teaching is mandatory for all disciplines since the primary school. At the universities, 12.5% of the students are specialising in ICT courses and the industry should create 10,000 jobs a year for new ICT graduates.

**Q** How would you describe the major bottlenecks on the path of e-Content development in your country?

Many efforts have been made by the government and telecom operators to reduce tariffs for end users, corporate services and ICT enterprises. Special favours were extended to schools, students, NGO and families. Users and e-Content producers are seeking for larger bandwidth with low prices in order to develop their capacities and shift the market dynamism.

However, local market size is a serious handicap for the e-Content industry. We should work hard to develop regional cooperation and share e-Content over common issues, capitalizing on best practices, successful achievements and cost sharing for regional projects.

**Q** In majority of the countries, e-Content development is significantly dependent on ICT infrastructure and ICT facilities. But, in some countries that are quite developed, ICT has become part of daily life and e-Content development is primarily subjected to the initiatives of an individual/organization/government, etc. Whereas, in some countries, especially those, which are developing and under developed, e-Content development is largely dependent on ICT infrastructure. What is the situation in your country? Please explain in detail.

Tunisia is an emerging country with good and stable economic and social performances since the past 15 years, according to UN agencies, interna-

tional institutions and ranking specialists. The Tunisian population is mainly composed of educated middle class. Electricity and telecom coverage are near to 100%.

**Q** How would you describe the ICT scenario in your country? Please describe in terms of infrastructure, penetration, acceptance and policies.

Telecom infrastructure:

Telephony & Data transmission :

Fully digital, variety of common technologies (MPLS, Frame Relay, ISDN, ADSL, VSAT, Wimax, G2/G3).

>> High speed optical fibre corona in all regions

>> International Internet bandwidth: 7.5Gb/s

>> Fixed lines coverage (phone, ADSL): 20%

>> Mobile phone coverage: 82%

**Accessibility:**

>> 360 Community access centres

>> A community access centre per village by 2009

>> A children computer centre per governorate (25)

>> Low uniform dial-up access cost: 0.014 US\$/min, 0.2 US\$/min for international calls

>> Home Internet access package: 200 US\$/year for 1MB line

>> Family PC funding rates focusing low earnings

>> An e-mail address for each citizen by the end of 2009

>> Households with PC: 20%

>> Internet users: 24% of the population

>> ADSL Lines: 2.6% per 100 habitants and 10% of the houses

>> ISPs: 12

**ICT Roadmap:**

>> 1994: Intellectual property protection law

>> 2000: Electronic business & interchange act

>> 2002: Telecom regulator creation

>> 2002: Personal data protection: Amendment of the constitution

>> 2004: National Certification Authority (ANCE)

>> 2004: IT security act & National IT Security Agency (ANSI)

>> 2007: Digital Economy Law, a PPP framework

>> 2008: Telecom Code new edition

**Supporting structures:**

>> Techno parks, business incubators, tele-Services centres

>> Specialized advising one stop desk for ICT affairs

>> Task Force Unit (Ministry of Communication Technologies)

>> Industry Promotion Agency (API)

>> Foreign Investment Promotion Agency (FIPA)

**ICT sector indicators:**

>> ICT sector growth: 21% for 2008

>> ICT contribution to GDP: 10%

**Q** How do you see the future of e-Content development in your country?

Telecom infrastructure development, Internet connectivity, mobile boom, e-Services and m-Services demand and opportunities are changing the content media, diversity and quality. Software industry, web and mobile contents services are crucial in order to achieve e-Tunisia goals in terms of employment, investment (local, FDI) and usage of ICT (improving accessibility, effectiveness, productivity and quality of living, cutting costs).

Tunisians should work hard and get the best of its competitive advantages, focusing on a larger market for its e-Content industry.

**Q** Please explain which medium is the most preferred medium for e-Content development? Print? Or TV? Or Internet/Web? Or Radio? Or Mobile/Wireless? Or a combination of some of these?

Prints, classical TV and radio are largely diffused. Internet and mobile contents are replacing print - serving communities, citizens and businesses with quality services reducing costs, saving time, increasing productivity and sharing knowledge and best practices.

Banking, alert, indication and location m-Services are very exiting. Infrastructure development and multi-services offers (data, voice, TV) will increase the demand for e-Content.

## Best Practices

### E-LEARNING

#### Tunisian Post Virtual School

(<http://www.postelearning.poste.tn/eng/fd/index.htm>)

A virtual school delivering a large variety of good quality content and online support for post professionals in Tunisia and other English/French/Arabic

speaking countries. Students can register online, open learning sessions, get support from tutors, make self assessment/evaluation. Universal Postal Union members from over 30 countries are using the virtual school of Tunisian Post. That is a unique showcase of relevant virtual learning service, used

all over the world (especially by some countries who can't afford the investment by their own) and open to contribution.

#### EduNet the virtual school portal

(<http://www.edunet.tn/an/apropos.html>) Pragmacom scholar support DVDs, SIT training products

### E-GOVERNMENT

#### Tunisian Poste Portal

This is providing a variety of e-Gov services addressing all citizens. With e-Dinar any citizen can afford to get an account for all type of transactions. Tunisian Poste is acting as multimedia service provider and facilitator for many public services

(transportation, utilities operators, municipalities, universities, schools, housing, insurance, etc) in order to get access to their services and pay online all bills. Tunisian Post include innovative postal services such as Web-Telegram, hybrid mailing, mail carrying tracking (by Internet & GSM), instant electronic money transfer (including SMS service), electronic post cards, flower carrying, etc. Citizens and enterprises can access online to public services, loading forms or tenders and information related to festivals, news, etc.

CNSS social security declaration, Cimpf Rafik tax clearance, Madania municipality services, TTN one stop bureau for foreign trade clearance, API one stop bureau for business set up, Tele-inscription student admission and related services such as housing, transportation and scholarship. (<http://www.bawaba.gov.tn/bawaba/publish/viewlinktheme.jsp?Lang=en&id=1096>)

## E-HEALTH

**MaghrebMed medical information site** ([www.maghrebmed.com.tn/](http://www.maghrebmed.com.tn/))  
**CIMSP information site** ([http://www.sante-tunisie.rns.tn/msp\\_eng/msp\\_eng.html](http://www.sante-tunisie.rns.tn/msp_eng/msp_eng.html))

## E-BUSINESS

**Tunicommerce**  
e-Commerce B2B platform addressing SMEs to improve and upgrade their business processes competitiveness, ensure traceability and develop partnership. ([www.tunicommerce.com/](http://www.tunicommerce.com/))

**Travel To Do**  
Travel arrangement web site ([www.hometravelagent.net/](http://www.hometravelagent.net/))

## E-CULTURE

**IbnKhaldoun social illuminator**  
The richest e-Culture web-site on Ibn Khardoun illumination of six centuries with rare and precious content disseminating universal human values such a democracy and good governance. ([http://www.islamonline.net/servlet/Satellite?c=Article\\_C&cid=1158658368227&pagename=Zone-English-ArtCulture%2FACELayout](http://www.islamonline.net/servlet/Satellite?c=Article_C&cid=1158658368227&pagename=Zone-English-ArtCulture%2FACELayout))

**Mosaics of Tunisia**  
Guide to the best Mosaics Pieces from the country with the largest Roman Mosaics Collection in the world ([www.tunisiaonline.com/mosaics/](http://www.tunisiaonline.com/mosaics/))

## E-ENTERTAINMENT

**JetSetMagazine**  
An innovative online magazine providing entertainment and nocturnal good and well done content in Tunisia using up-to-date ICT technologies. ([JetSetMagazine.net](http://www.jetsetmagazine.net))

## E-SCIENCE

**Annonces.rnu.tn**  
A portal supporting scientific communities, researchers and students with up-to-date information on scientific events and productions. It's contributing to science diffusion and enhancing accessibility to scientific producers to get access to opportunities to attend relevant events and present their papers.

ent their papers.

CCK announces scientific events and productions, CNUSD scientific library, analysis and simulation solutions

## E-INCLUSION

**Etudionet**  
A community inclusive portal made and maintained by students to support, inform and interact on several relevant issues with a large variety of useful contents (learning, procedures, training, jobs, experiences, best practices, scholarship, public services, healthcare, events, news). Members can store and update personal data, interests and queries and input useful contents (reports, curses) for the community. They can find, through the search function, classmates, friends or people with the same interests. Etudionet includes a private messaging service for its members with sympathy tricks like friends birthday alert.

HammamEnnessa female web site, ANETI employment web site, many NGOs Web sites