



المركز العربي لدعم البرمجيات الحرة والمفتوحة المصدر
The Arab Support Center for Free and Open Source Software



KICKOFF COORDINATION WORKSHOP

DEVELOPING THE APPROACH – BUILDING THE COLLABORATION FRAMEWORK

WORKSHOP DATES: 4TH - 5TH FEBRUARY 2009

HELD AT: UNIVERSITY OF BALAMAND, AL-KURAH, LEBANON

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EXECUTIVE SUMMARY

The kickoff coordination workshop was held at the University of Balamand, Al-Kurah, Lebanon on the 4th and the 5th of February 2009. Participants representing 19 leading Arab Universities met in the forum over two days of global discussions and separate working groups. This workshop has been organized with the “openness” of the FOSS philosophy in mind. The workshop aims at:

- Discussing and deepening the ideas and the missions carried out by *MA3BAR* and defining a concrete action plan for the coming two years.
- Defining *MA3BAR* constituents and major actors and partners.

Attendees have expressed their willingness in becoming active partners of the center, and provide the necessary support to help achieve the goals of the center.

The opening session presented four welcome statements by the University of Balamand, UNDP/ICTDAR, UNESCO, and the Ma3bar coordinator. All statements expressed the importance of the Ma3bar initiative and the Free and Open Source Software (FOSS) in social and economical development in the Arab region.

Representatives of participating Arab Universities presented their views and initiatives in FOSS and the vital role Ma3bar can play in facilitating the necessary collaboration among Universities and providing the required awareness and training in the Arab societies. Ma3bar would smooth the progress of FOSS research and development, which would have direct impact on social and economical development.

Participants were divided into three separate working groups to discuss the three major tracks of the center: Training, Awareness, and Application & Content Development. Each group has come up with a set of recommendations that were discussed and presented during the second day.

Training. The working group on training categorized the target groups for training as faculty members, IT staff, public and private administrators, and enterprises in general. The training domain subjects were put into four major categories: Economic models for FOSS, processes for transition towards FOSS, FOSS applications, and FOSS development. The training delivery process was also defined to include five steps: Identification of needs, scheduling of a session, preparing the materials, delivery of the training session, and follow-up and indicators of success.

The group discussed also the trained models. These cover normal classes, panel group discussions, project oriented training, and virtual training for professionals. Finally, the group recommended Ma3bar to build a list of expertise.

Awareness. The working group on awareness identified the goals of awareness as the spreading of the open source philosophy in the Arab societies, and widening the aware community. The target group sectors are: public and private academic institutions, the public sector (government agencies), and the private sector (companies and NGO's.) Target group categories include decision makers, management, IT specialists, and end users. The working group also developed an awareness matrix that specifies the awareness requirements per sector per target groups.

Application and content development. The working group on application and content development discussed the target domains of development. It has been decided to exclude enterprise solutions, and limit the development to academic and SME applications, and largely involve students at all levels. It was

recommended to establish a special interest group on open source. The group would provide the community with technical support for the development of new open source applications. Two types of projects were defined: One based on the community needs, and another one based on local needs. The recommended project themes are: e-commerce, e-learning, and projects needed by local partners.

In order to recommend regional collaborations, a call for proposal would be issued by Ma3bar. At least three Universities from three different countries are expected to work on this category. Proposals in this category would be funded.

It was recommended to create FOSS student clubs supported by Ma3bar with basic funding, training, and other necessary materials.

A portal is to be put in place (<http://www.ma3bar.org>). It will act as community for collaboration, a web repertoire of FOSS resources, a bulletin board for project announcements, call for proposals, and Ma3bar news and activities. Discussions on the portal proposed structure led to amending the portal site map as shown in Appendix F – Portal Concept Map.

INTRODUCTION¹

The United Nations Educational, Scientific, and Cultural Organization² (UNESCO), and the United Nations Development Program – Information and Communication Technology for Development in the Arab Region³ (UNDP–ICTDAR) have come together to initiate *MA3BAR*, the Arab Support Center for Free and Open Source Software. The objectives of *MA3BAR* are three-fold:

1. Capacity building by providing the necessary training and assistance in developing the necessary skills and competences in the public and the private sectors, as well as in non-government organizations, and encouraging the inclusion of Free and Open Source Software (FOSS) courses as part of the standard course offerings in universities as well as networking the various FOSS communities that exist in the Arab Region.
2. Support the creation of applications (or toolkits) that will meet the needs of the local market and lead to the strengthening of local and regional expertise.
3. Raise awareness at the government and business levels on the potential and viability of open source solutions and applications as solid alternatives to proprietary software.

The University of Balamand⁴ (UOB), with existing initiatives and active FOSS development, has joined the consortium as a first partner. The University of Balamand (UOB) is proposing to participate actively by supporting and hosting the center. This effort is to be conducted in cooperation with a wider possible set of partners comprising other leading academic institutions throughout the Arab region.

MA3BAR, with UNDP-ICTDAR, UNESCO and the University of Balamand as the main partners, provides mechanisms for capacity building, through academic and application development of free/open source software (FOSS) as well as through awareness campaigns and workshops focusing on government, academia and business leaders. *MA3BAR* is created as an Arab Regional FOSS center to act as a catalyst linking various partners and initiatives together. The name of the center, *MA3BAR* (مَعْبَر), is the acronym for (المركز العربي لدعم البرمجيات الحرة والمفتوحة المصدر), and is meant to constitute a “passage” to FOSS knowledge and development in the Arab region.

This document reports the activities, the minutes, and the recommendations of the kickoff coordination workshop of Ma3bar, held at the University of Balamand, Al-Kurah, Lebanon on the 4th and the 5th of February 2009.

This workshop has been organized with the “openness” of the FOSS philosophy in mind. Major academic institutions from the Arab region have attended the workshop and have shown interest in becoming *MA3BAR* partners. The workshop aims at:

- Discussing and deepening the ideas and the missions carried out by *MA3BAR* and defining a concrete action plan for the coming two years.
- Defining *MA3BAR* constituents and major actors and partners.

¹ Based on excerpts from the UNDP/ICTDAR – UNESCO project document for FOSS in the Arab Region

² <http://www.unesco.org/>

³ <http://www.ictdar.org/>

⁴ <http://www.balamand.edu.lb/>

GENERAL MINUTES OF THE WORKSHOP

This section of the report provides general notes about the workshop, and describes in brief the various sessions and presentations, and the interventions of attendees representing participating Universities. Appendix A – Workshop Program shows the agenda.

Day 1

Opening Session: Welcome Statements

The opening session presented three welcome statements by the partners, the University of Balamand, UNDP/ICTDAR, and UNESCO.

UOB welcome statement

The opening session started with a welcome statement from the vice-president of the University of Balamand Georges Nahas, representing the University on behalf of President Elie Salem. He expressed his deepest gratitude to all attendees coming from the various Arab countries, and pointed out that the success of this project relies greatly on the widest participation possible of Arab academic institutions. The following main points were addressed:

- Information and communication technologies play an important role in social and economical development in the modern society of today.
- Software constitutes a key element in accessing and analyzing information.
- FOSS would provide easier access to information by allowing poorer societies to benefit from such “affordable” technologies.
- Arabic and localized software development is still very limited compared with other regions of the world, relative to the population and the number of universities in the Arab region.
- The importance of Free and Open Source Software (FOSS) in the Arab region, and the vital role academic institutions can play in providing awareness in the community about the benefits of FOSS, both at the economical and developmental levels.

UNDP/ICTDAR opening statement

Representing UNDP/ICTDAR, regional project manager Ziad Haddara welcomed representatives of participating universities to the first Ma3bar workshop. The main points emphasized in his statement are

- The workshop aims at
 - Introducing participating partners to the activities UNDP/ICTDAR, UNESCO, and Balamand are carrying out in organizing the launch of Ma3bar, but more importantly,
 - Learning from partners’ experiences to develop the center action plan and to lay out its goals and work methodology, in a global cooperative framework for the benefit and development of the Arab societies.
- UNDP/ICTDAR program aims at utilizing information and communication technologies in development programs to help build the Arab human capital and create new jobs. This is particularly achieved through the implementation of cooperative projects between government agencies, the private sector, non-government agencies, and the civil societies.

- FOSS is considered an efficient means of development. It has a significant lower cost of ownership than proprietary software, and helps promote local and regional software development that suits better the Arab market needs. Such local FOSS R&D would help the Arab societies contribute to the software industry rather than being merely a consumer of such technologies.
- Ma3bar will rely essentially on the cooperation and participation of all of its partners, not just the founding body. It is desired to broaden the participation to all major academic institutions in the Arab region, and have them all contribute to achieving the goals of the center.

UNESCO opening statement

Representing UNESCO, Program Officer Georges Awad, Communication & Information Sector of the UNESCO Regional Office in Beirut, welcomed everyone and presented the UNESCO vision of development in the FOSS sector. The following points were emphasized:

- The importance of FOSS vis-à-vis social and economical development in the Arab region.
- Higher education institutions can play a vital role in FOSS awareness, training, and application development.
- This workshop is intended to engage leading Arab universities in Ma3bar initiative, and join forces together to create an Arab consortium for FOSS.
- UNESCO will provide continued support to Ma3bar leading to the accomplishment of all of the goals set by the center.

Session I: Ma3bar Introduction

Walid Karam, the coordinator of Ma3bar, presented the center and highlighted the following points:

- The present situation of FOSS in the Arab region.
 - Most developing countries could not benefit effectively from the information and communication technologies (ICT) for development
 - Most developing countries are still consumers of these technologies, with a very high cost as they are imported from developed countries
 - Most of these software tools are not suitable for local business rules and needs.
 - Arab countries should develop an information and communication technology strategy for development (ICT4D) that encourages local software production and capacity building
- FOSS as a means of development
 - Development cost and cost of ownership are acceptable, which make it suitable for development
 - It is developed locally and adapts better to local business rules and needs
 - It helps local capacity building and encourages business startups and the creation of jobs
- Why "Ma3bar?"
 - It is a support and collaboration center that helps facilitating links and cooperative efforts between Arab partners for the development of FOSS and for capacity building
 - The decision to form the center comes from the Cairo meeting (ICTDAR – UNESCO – ESCWA, December 2006) and the Rabat meeting (ICTDAR – UNESCO – ISESCO – DEPTI, November 2007)

- The nature of operations in Ma3bar will remain of coordination nature between partner universities and institutions
- Why Lebanon and the University of Balamand?
 - Lebanon has a central geographical location in the Arab world
 - Lebanon enjoys a multinational and multilingual educational system with openness to the three major languages used in the Arab world, English, French, and Arabic
 - The University of Balamand (UOB) shares the same vision with UNDP/ICTDAR and UNESCO in the strategic role of FOSS in development
 - UOB is open to partnership with ICTDAR, UNESCO, academic institutions, and the private and the public sectors, and is willing to dedicate resources as well as a team of professionals to implement and achieve the goals of Ma3bar
- Goals of Ma3bar
 - Conducting awareness campaigns in the public sector to the importance and direct impact of FOSS on development
 - Target groups include the private sector, the public sector, educational institutions, and NGO's, as well as any other interested organization
 - Incorporating FOSS courses and curricula in academic programs in higher education
 - Promotion and support of FOSS research and development of topics related to the Arab region, either as student senior projects, inter-university cooperative projects, or as faculty or doctoral research projects
 - Acting as a coordinator and a cooperative body between the various academic and professional institutions in the Arab region
- Initial steps of Ma3bar
 - Developing an action plan for the various activities and operations during the first two years
 - Initial financial support by UNESCO, UNDP/ICTDAR
 - Seeking financial support from other sources, including the private sector
 - Logistical and Managerial support by UOB
 - The board of counseling of *MA3BAR* consists of:
 - UNDP/ICTDAR
 - UNESCO
 - UOB
 - Participating Universities

Session II: Partners' Vision & Experience in FOSS

In this session, representatives of participating Universities were given each a short time (five minutes) to present their vision, involvement or initiatives on FOSS. Most of the interventions were oral talks; some provided their own presentations. Slides of these presentations are available. The following notes summarize the partners' talks:

Cairo University

One of the objectives of Ma3bar is to stimulate related R &D activities in the Arab region, specifically the creation of open source based applications, which respond better to the social and economic developmental needs of the region. This objective has several purposes:

- Strengthening the technical capabilities of young people
- Generating graduates with FOSS experience
- Improving the region's participation in the global FOSS movement.
- Helping transform the region from a pure consumer of locally developed in other parts of the world to a creator and contributor of locally developed applications.
- Improving the overall collaboration among Arab academic institutions, by encouraging them to work on collaborative projects.

It is the University's position that, to achieve those purposes, it is essential to adjust software engineering development techniques and methodologies to be more suitable for FOSS development. This would require concentrating on software construction vs. building from scratch. We also have to investigate the actual needs of the Arab region.

It is also believed that the availability and utilization of FOSS has a strong potential to encourage "collaborative" methods and tools for development. Thus we see open source not from the "free" characteristic, but rather as a set of "shared" repository of code components that facilitate easier collaborative development.

However, to make this potential practical, Ma3bar has to come up with standard specification attributes for code components and easier weaving mechanisms such that a group of developers residing in several locations can collaborate to develop one integrated software application, or at least can share partially developed "standardized" components.

Additionally, design techniques have to be adjusted to adopt combination of forward design specification with backward adjustment for modules that are to be adopted as ready-made (open source code), with refinement and review for the design.

Arab Open University

The Arab Open University follows an open education system with a blended learning approach; FOSS philosophy is in its core educational culture. The University uses an integrated learning environment with tools such as e-Mail, LMS, LOR WebFolio, Blogs, Student Records, and resources such as e-libraries, open archive journals, and others.

Antonine University

The Antonine University presented its vision to the FOSS and highlighted the strategic differences between proprietary software developed by "commercial firms," and open source software developed by "community management firms." These latter firms manage the development processes together in a cooperative environment, and provide the necessary support to their users.

At the educational level, the Antonine University uses and supports FOSS platforms as learning tools, engages its students in senior projects that involve FOSS, and provides a track of courses on FOSS as part of

its curricula. At the research and development level, the University has been engaged in enhancing the Learning Management System “Moodle” by enhancing its capabilities through the integration of a video streaming extension module.

The University recommends an action plan that encourages the use, dissemination, and development of FOSS in the Arab region.

Al-Quds Open University

Al-Quds Open University has taken efficient steps towards adopting and deploying FOSS in its programs. FOSS is being used in most in-house developed Applications i.e. (the academic portal, the managerial portal, Moodle platform, Virtual class application, etc.) The University has also started an awareness campaign in the University on three levels:

- At the University presidency level, a report on FOSS was prepared and circulated to all academic departments to adopt its recommendations at the university level, taking into consideration the existing capabilities.
- At the academic level, a letter has been sent to all lecturers encouraging them to use FOSS in IT-related courses, when possible. Students implementing graduate projects are encouraged to use FOSS tools or develop new ones.
- Provide training for IT lecturers, instructors, and specialists on FOSS systems (Linux, PHP, Open office, etc.) as well as for students and the local community.

Sudan University of Science and Technology

The Sudan University of Science and Technology (SUST) has worked to create awareness in FOSS at the graduate, undergraduate, and diploma levels in the following departments and areas of specialties: Computer Science, Computer Systems and Networks, Information Systems and Technology, Software Engineering, Management Information Systems, Computer Engineering, Communication Engineering, and Biomedical Engineering. SUST has training programs in FOSS on Linux (essentials, administration, security), database implementation (PHP and MySQL), learning management systems (Moodle), Internet applications, network programming and security, and office applications. The University has also a record of application development using Open Source: University Web site, Library Management System, Timetable management System, and Applications to the community. SUST has also participated on FOSS development (MQ4CPP, Snort, NS-2, etc.)

At the national level, the country’s National Information Center has formed in April of 2005 a committee to build strategic plan to utilize FOSS in different areas. This committee has developed the following recommendations:

- Build National Center for FOSS
- Develop Portal for FOSS
- Design detailed awareness plan
- Develop governmental and private sector applications using FOSS
- Include FOSS in the National ICT Strategic plan
- Support training centers to develop and deliver FOSS training programs
- Give priority for FOSS professional certificates in the governmental employment process
- Support contest on FOSS application development for governmental needs
- Encourage R&D in FOSS Areas
- Include at least one FOSS course in the undergraduate ICT programs

- Enhance the collaboration with the Arab and African regions in exchanging experts and practice in FOSS areas

University of Aleppo

The University of Aleppo has set a long-term goal of complete migration to FOSS, starting in the Computer Engineering Department, Faculty of Electrical and Electronic Engineering, to cover later the whole university. This migration entails conducting training sessions, introducing FOSS courses, and the use and development of FOSS tools. The University encourages research in FOSS, and has had one publication in the 2008 SCS Conference on Open Source Information Systems. Senior projects in the Computer Engineering Department are geared in the FOSS direction.

The University of Aleppo is willing to take an active role in Ma3bar by sharing experiences and collaborating with other partners. It is important that Ma3bar tackles strategic projects in developing FOSS tools and spreading the open source philosophy.

Other Universities

All other Universities expressed their visions in using FOSS. The following are few pertinent notes.

- Due to the embargo imposed by the US government on exporting technology to certain Arab countries, laws in Syria, Sudan, and Palestine have been passed to enforce the use of FOSS in these countries in academia and government agencies.
- University of Tunis El Manar – ENIT has already put in place in its curricula a educational track leading to an excellence in the use and development of FOSS applications
- Most universities have indicated that FOSS has been introduced as a tool for academic and administrative purposes.

Session III: Working Groups

The attendees were divided into three separate working groups to discuss the three major tracks of the center: Training, Awareness, and Applications. The concept notes of these three activities are attached in the appendices. Discussions and final recommendations of each corresponding group are shown in subsequent sections below.

Day 2

Session IV: Group Presentations and Recommendations

In this session, each working group presented its work and recommendations as a result of the discussions held in session III above. The Recommendations presented by each group are shown in the corresponding sections below.

Working Group on Training

Moderator

Chafic Mokbel, Acting Secretary General, the Research Council, University of Balamand

Discussions and Recommendations

The training group tried to find some responses to several crucial elements relative to training within MA3BAR. It has been agreed that training is vital for the spreading of the FOSS culture in the Arab world. Providing FOSS training is also a cornerstone for development in the region.

The first crucial question raised is the target group for the training sessions. After long discussions especially relative to considering the students as a target it has been decided to identify the following as target groups for the training:

- Faculty
- IT staff
- Public and private administrations
- Enterprises

Students were not omitted but it has been considered that students would be trained within their respective faculties; in classrooms, laboratories, and in the form of projects. Training enterprises is an issue and this target will be kept for a later stage.

The second point tackled is the identification of the domains to be covered by the training sessions. Four major domains have been identified:

- Economic models for FOSS
- Processes for transition towards FOSS
- FOSS applications
- FOSS development

The third point studied by the group is the process to be followed in order to prepare and deliver a training session. The following steps are to be followed:

1. Identification of needs
2. Scheduling of a session
3. Preparing the materials
4. Delivery of the training session
5. Follow-up and indicators of success

Afterwards, the team focused on the trained models. These cover normal classes, panel group discussions, project oriented training, and virtual training for professionals. The training materials and resources must be archived and made available through the portal. The group suggested providing a training certificate to the trainees following each training session. This idea has been largely discussed later on in the group participation. It has been agreed to delay the decision to issue certificates to a later stage.

It was decided that MA3BAR would concentrate primarily on advanced FOSS training; basic training should be carried out by local partners.

Finally, the group recommended MA3BAR to build a list of expertise. The partners would send their domains of expertise to the MA3BAR coordinator. A network of trainees will be formed and MA3BAR will rely on this

network in order to prepare and deliver a training session. The MA3BAR portal offers a space where interaction among and with the trainees network is offered. Training materials will also be made available through the portal. After few sessions of training, the training system will be evaluated and sustainability of the network will be studied.

Expected Overall Outcome

- Training Material preparation:
 - Awareness courses (Concepts, Benefits, ethical and legal, Business Model for FOSS)
 - Basic training courses, the current “hot” areas, etc.
- Keep a list of the available FOSS training resources and applications
- Arrange training programs for “training the trainers” on current “hot” areas
- Building a list of expertise from the participating partners
- Build a network of trainers from the participating partners and nominate a training coordinator
- Interactive portal with partners’ know-how
- Prepare a master plan for training

Working Group on Awareness

Moderator

George Awad, Program Officer, Communication & Information Sector, UNESCO Regional Office – Beirut

Objectives, Discussions & Recommendations

The objectives set for the working group on awareness are to define the purpose of FOSS awareness, identify the target group sectors and categories, and delineate the content of the awareness campaigns. The group set the following recommendations.

- **Purpose of awareness:** The first discussion held was to define the purpose of the planned awareness campaigns. Two goals are identified:
 - FOSS dissemination in the Arab region. It is about spreading the open source philosophy among technology users and consumers, leading to a cultural change in the use of such technology in everyday business applications. FOSS dissemination entails the basic concepts, from licensing to technical issues, as well as ethical issues in using software, and the freedom behind using FOSS.
 - To broaden the aware community in the Arab region. With the absence of indicators on the level of open source awareness in the Arab region, it is obvious that participating academic institutions have already initiatives in place for the use and development of FOSS. It is a major goal of the envisioned awareness to enlarge the aware communities to cover the various business and academic sectors.
- **Target Group Sectors:** Three target group sectors have been identified:
 - The academic sector, both public and private.
 - The public sector (Government Agencies)
 - The private sector (Companies and NGOs)
- **Target Group Categories:** The following target group categories have been identified:

- Decision makers
 - Management
 - Department managers
 - Instructors (Academic sector)
 - IT specialists
 - Developers
 - Administrators
 - Technical support
 - End users
 - Students (Academic sector)
 - General Public
- **Awareness Content:** A substantial part of the discussions was dedicated to the identification and development of the awareness content. Below is the list of content suggested by the group, categorized by target groups.
 - Decision makers
 - Basic concepts
 - Ethical, social and legal issues
 - Economical and financial section
 - Infrastructure
 - Cost & benefits analysis
 - Advantages and disadvantages section
 - Success stories
 - Management
 - Basic concepts
 - Organizational section
 - In the Academic sector
 - How FOSS improve teaching and curricula
 - FOSS and research advantages
 - FOSS and the market
 - FOSS and the quality of the graduate (open mind, integration, etc.)
 - Success stories (financial issues)
 - IT specialists
 - Content Developers
 - Portal
 - Resources
 - Discussion groups
 - Forums
 - Blogs
 - Etc.
 - Animation of a dynamic and active FOSS network
 - Administrators
 - Portal
 - Resources
 - Discussion groups
 - Forums
 - Blogs
 - Etc.
 - Market information
 - Challenges and technical training
 - Technical Support

- Portal
 - Resources
 - Discussion groups
 - Forums
 - Blogs
 - Etc.
- Market information
- Challenges and technical training
- End users
 - Basic concepts
 - Tools and resources
 - Productivity tools
 - General campaign ...
 - Security
 - Culture ... innovation

The working group on awareness has also developed the awareness matrix table shown in Table 1 below. This table specifies the awareness requirements per sector per target groups.

Table 1: Awareness Matrix

	Mgmt.			IT SPs			End users	
	Decision makers	Dpt. Managers	Instructors	Developers	Administrators	Tech. Support	Students	General Public
Academic Sector	x	x	x	x	x	x	x	x
Public Sector	x	x		x	x	x		x
Private Sector	x	x		x	x	x		x

Working Group on Applications and Content Development

Moderator

Ziad Haddara, Regional Project Manager, UNDP/ICTDAR

Objectives

The objectives of the working group on applications and content development are:

- To identify mechanisms of encouraging FOSS application development
- To determine the topics of these applications
- To discover ways of business planning and entrepreneurship for successful implementation of FOSS

- applications
- To find ways of inter-University collaboration on common projects
- To define the role of Ma3bar in application and content development

Further to extensive discussions on the points above, the group has come up with the following recommendations.

Discussions and Recommendations

- The group agreed to exclude enterprise solutions from *MA3BAR* initiatives. It was recommended that the application domain tackles academic and small and medium enterprise (SME) applications
- It was agreed that open-source applications would not be acceptable for research that targets academic promotion, though it may be used as a research tool
- It was also agreed that there should be a clear strategic plan of FOSS development with well defined objectives
- *MA3BAR* should involve all students, graduates as well as undergraduates
- It was recommended to establish a special interest group on open source. The group would provide the community with technical support for the development of new open source applications
- Two types of projects were identified:
 - The first type is based on the community need
 - The second type is based on local needs

Community needs are to be researched through a survey conducted by Ma3bar. Calls for proposals would be issued, and awards would be granted to the best projects. The following project themes are recommended:

 - e-Commerce
 - e-Learning
 - Specific projects needed by local partners
- In order to recommend regional collaborations, a call for proposal would be issued by *MA3BAR*. At least three Universities from three different countries are expected to work on this category. Proposals in this category would be funded
- Students are best engaged through other students
- It was recommended to create open source software students clubs in partner Universities
- *MA3BAR* would provide club chairs with training and necessary material and resources to support the various activities of the clubs
- Participants should be provided with incentives. This should include the following:
 - Basic funding for projects
 - Training
 - Reasonable materials and books
- It was recommended not to start from scratch, but to rather ask all universities who have open source applications to send them to *MA3BAR* as contributions
- Immediate recommendations are identified:
 - Create Open Source Student Clubs
 - Conduct a survey on the community need for open source applications
 - A simple but achievable recommendation is to create a discussion group and mailing lists among the participants in order to encourage exchange

Challenges and Threats

The following threats were identified:

- Lack of interest from faculty and/or students
- Funding
- Programming Skills
- Copyright
- Lack of support from the industry
- Applying standard rules in coding and development

Session V: MA3BAR Portal Demonstration

MA3BAR coordinator Walid Karam described the “Portal Concept Map.” This map lays out the envisioned portal at <http://www.MA3BAR.org>. It is meant to be a web place for collaboration and networking MA3BAR partners together. It provides a host for the various activities of MA3BAR, including awareness campaigns, training, workshops, and application and content development. It comprises a repertoire of FOSS, call for proposals, club activities, members’ corner, and external links. (Appendix F – Portal Concept Map)

Session VI: FOSS Educational Model

Moderator

George Awad, Program Officer, Communication & Information Sector, UNESCO Regional Office – Beirut

Discussions and Recommendations

Through an educational process, FOSS may be largely spread in the region. This session has been dedicated to study and discuss the different educational models that may be adopted. Two initiatives have been presented by the Antonine University and ENIT. Both partners promote the dedication of an option in an engineering degree to FOSS. The other partners argue on the horizontal aspect of FOSS and propose the transversal use of FOSS in various educational curricula. Colleagues from Palestine indicated the existence of government law enforcing the use of FOSS in education. It has been largely accepted that the FOSS define a set of tools and documents that often carry the state of the art knowledge in diverse fields and domains. All partners agreed that the introduction of FOSS in the educational process opens a unconstrained passage to the wide knowledge space.

Session VII: Collaboration & Decentralization Model

Moderator

Ziad Haddara, Regional Project Manager, UNDP/ICTDAT

Discussions and Recommendations

This session aimed at defining the methodology used to implement the action plan of the center. The different partners have expressed their will to support and participate in the various activities of the Center. Some recommendations regarding the networking aspects within the Center have been made. The portal appears naturally as a corner stone in this networking process. All the partners agreed to participate by providing

content, links, etc. to the portal. They would also point to this portal in order to increase the dissemination. Reports on benchmarking FOSS seem to be of added value for all. The partners also would like to have the Center as a Forum to diffuse information about seminars, workshops etc.

The participants show their willingness to participate in the different activities of the Center. Mailing lists will be formed so as to coordinate actions to be taken.

Session VIII: Wrap-up session and Final Recommendations

The workshop has achieved its goals. A consortium has been established and the different stakeholders have expressed their willingness to participate in MA3BAR activities. Based on the discussions and recommendations, the following action plan was proposed:

- Create a steering committee for MA3BAR that will monitor and supervise the activities of the center. Members of this committee include persons from UNDP/ICTDAR, UNESCO, and UOB, but may extend to include other persons from interested partners.
- Build a first release of the portal. One or two rounds of interactions with the partners will be needed in order to finalize the release. Appendix F – Portal Concept Map proposes a structure for the portal.
- Define the awareness network and a corresponding plan of action. Partners interested in conducting or supporting the awareness campaigns will be invited to join the network. An action plan for FOSS awareness in the region will be established.
- Define a training network and a plan of action. Interested partners will be included. This follows the process as suggested by the training working group:
 - Identify the needs in the Arab region by conducting targeted surveys
 - Scheduling
 - Preparation of materials
 - Delivery of training sessions
- Define an application development network and the corresponding plan of action. Interested partners will be invited to join. Major tasks include:
 - The establishment of a distributed development environment (CVS)
 - Determining priorities for FOSS development. This can be captured in the targeted surveys.
 - Experimenting with and testing existing FOSS applications of interest to the Arab region. Support will be provided on the portal.
 - Designing and developing FOSS.

APPENDIX A – WORKSHOP PROGRAM

First Day – Wednesday February 4, 2009

8.30 – 9.00 Registration

9.00 – 9.30 Welcome Notes

- **Elie Salem**, President – University of Balamand
- **Ziad Haddara**, Regional Project Manager – UNDP/ICTDAR
- **George Awad**, Program Officer, Communication & Information Sector - UNESCO Regional Office – Beirut

9.30 – 10.00 Overview of *MA3BAR*

- **Walid Karam**, Coordinator, *MA3BAR* – UOB

10.00 – 10.45 Partners' Vision & Experience in FOSS (5 min. each)

- Aleppo University • American University of Beirut • Arab Open University – Kuwait • Beirut Arab University • Birzeit University • Cairo University • Higher Institute of Applied Sciences and Technology – Damascus • Jordan University • Jordan University of Science and Technology •

10.45 – 11.00 Coffee Break

11.00 – 11.45 Partners' Vision & Experience in FOSS (5 min. each)

- Lebanese American University • Al-Quds Open University • Qatar University • Sudan University of Science and Technology • Université Antonine • University of Balamand • Université Saint-Esprit de Kaslik • University Tunis El Manar – ENIT •

11.45 – 12.45 Working Groups

Group 1	Group 2	Group 3
Awareness-raising	Training	Applications

12.45 – 14.00 Lunch Break

14.00 – 16.00 Working Groups

Group 1	Group 2	Group 3
Awareness-raising	Training	Applications

16.00 – 16.30 Tour on UOB Campus

16.30 – 20.30 Back to Hotel – Free Time

20.30 Dinner

Second Day – Thursday February 5, 2009

9.00 – 10.30 Group Presentations

- **Group 1** presentation - Awareness-raising
- **Group 2** presentation - Training
- **Group 3** presentation – Applications

10.30 – 10.45 *MA3BAR* Portal Demonstration

- **Walid Karam**, Coordinator, *MA3BAR* – UOB

10.45 – 11.00 Coffee Break

11.00 – 11.40 FOSS Educational Model

- **All**, group discussions – moderated by **George Awad**, Program Officer, Communication & Information Sector - UNESCO Regional Office – Beirut

11.40 – 12.20 Collaboration & Decentralization Model

- **All**, group discussions – moderated by **Ziad Haddara**, Regional Project Manager – UNDP/ICTDAR

12.20 – 12.45 Wrap-Up – Recommendations – Conclusions

- **All**, group discussions

12.45 – 14.00 Lunch Break

14.00 – 18.00 Visit to Geita Grotto

APPENDIX B – PARTICIPATING UNIVERSITIES

The following is a list of universities and their representatives who have attended the workshop.

Egypt

Cairo University

- **Fatma Omara**, Head of Computer Science Department, Faculty of Computers and Information (fatma_Omara@hotmail.com)
- **Akram Salah**, Associate Professor, Faculty of Computers and Information (akramsalah.21@gmail.com)

Jordan

Jordan University

- **Fawaz Al-Zaghoul**, Dean of the King Abdullah II School for Information Technology (fawaz@ju.edu.jo)
- **Bassam Hammo**, Program of the Arabic Language Treatment (b.hammo@ju.edu.jo)

Jordan University of Science and Technology

- **Mohammad Al-Rousan**, Dean, Faculty of Computer and Information technology (alrousan@just.edu.jo)
- **Omar Al-Jarrah**, Professor of Computer Engineering – Assistant President, Director of Computer and Information Center (aljarrah@just.edu.jo)

Kuwait

Arab Open University

- **Ahamad Tolba**, Dean of the faculty of computer studies (astolba@arabou.org)

Lebanon

American University of Beirut (AUB)

- **Ibrahim Abou Faycal**, Electrical and Computer Engineering Department (ia14@aub.edu.lb)

Beirut Arab University (BAU)

- **Ali Haidar**, Department of Computer Engineering and Informatics (ari@bau.edu.lb)
- **Imad Issa**, MIS
- **Alaa Fleifel**, MIS

Lebanese American University (LAU)

- **Haidar Harmanani**, Chair of the Computer Science and Mathematics Division, LAU Byblos (haidar.harmanani@lau.edu.lb)

Université Antonine

- **Pierre Gedeon**, Dean, Faculty of Engineering (pierre.gedeon@upa.edu.lb)

Université Saint-Esprit de Kaslik (USEK)

- **Charbel Fares**, Faculty of Science and Computer Engineering (charbelfares@usek.edu.lb)

University of Balamand (UOB)

- **Hanna Greige**, Chairman, Mathematics Department (hanna.greige@balamand.edu.lb)
- **Antoine Melki**, Chairman, Computer Science Department (melki@balamand.edu.lb)
- **Chafic Mokbel**, Acting Secretary General, the Research Council (Chafic.mokbel@balamand.edu.lb)

Palestine

Birzeit University

- **Yousef Hassouneh**, Director of MA Program in Computational Science (yhassouneh@birzeit.edu)
- **Ismail Khater**, Department of Computer Engineering (ikhater@birzeit.edu)

Al-Quds Open University

- **Saada Shalabi**, Network and Technical Support Director(NTSD) (sshalabi@qou.edu)
- **Ala' Jawdat**, Head of Software Engineering Department, Information & Communication Technology Center (amahmoud@qou.edu)

Qatar

Qatar University

- **Saeed Alathba**, Application and Database Administration Manager (s.alathba@qu.edu.qa)

Sudan

Sudan University of Science and Technology

- **Mohamed Awad Elshaikh**, Head of Computer Systems and Networks, College of Computer Science and Information Technology (mawad_elsaikh@yahoo.com)
- **Yahia Abdalla Mohamed Hamad**, Computer Center (Yahia_abdalla@hotmail.com)

Syria

University of Aleppo

- **Mouhamad Ayman Naal**, Chef de département de Génie Informatique, Faculte de Génie Electrique et Electronique (m_naal@hotmail.com)
- **Ahmad Chadi Aljundi**, Département de Génie Informatique, Faculte de Génie Electrique et Electronique (caljundi@aloola.sy)

Higher Institute for Applied Science and Technology (HIAST)

- **Wael Khansa**, Director (Wael.khansa@hiast.edu.sy)

- **Khaled Moubayed** (khaled.mobayyed@hiast.edu.sy)

Tunisia

University Tunis El Manar, ENIT

- **Ali Frihida**, GIS Software Engineer, Département TIC, LTSIRS (ali.frihida@enit.rnu.tn)

APPENDIX C – TRAINING CONCEPT NOTE

Nowadays “Free and Open Source Software” (FOSS) is a keystone in social and economical development. FOSS is more frequently used by companies and administrations worldwide. Innovative IT-companies are achieving higher turnover using free software. FOSS is offering significant potential for developing and transition countries as well. The Arab region can benefit from this potential. The “Information and Communication Technology for Development in Arab Region” (ICTDAR) at UNDP, the UNESCO, and the University of Balamand, together with Arab partners in the FOSS community have jointly initiated the Arab Support Center for FOSS (Ma3bar) to promote the use and the development of FOSS. A major activity of the center during the first two years is to increase awareness about FOSS and to train stakeholders in the Arab region on the use and the development of FOSS.

About Training

Training is intended to be given to IT decision maker and IT focal persons of different ministries, public institutions, professional associations, and chambers of commerce throughout the Arab world. Training sessions will be coordinated by Ma3bar. They will be divided into awareness raising sessions and training sessions that will be organized alternately at a frequency of three to four sessions per year. For the awareness raising sessions please refer to the awareness raising concept note.

The training sessions will focus on:

- Business models based on FOSS and the associated opportunities in developing the Arab ICT economy;
- Access of poorer communities to ICTs and the related advantages;
- Legal and license issues related to the nature of FOSS; i.e. the freedom to use the software for any purpose, to access, study and make changes to the source code, and to redistribute the changed versions;
- Alternatives available in FOSS world and how to migrate from existing expensive and proprietary software to freely available software or available at low cost;
- Organization of FOSS development and distribution within a FOSS community;
- Existing resources over the network and service offered by the FOSS Center for the Arab region;
- Use and change of existing FOSS.

Each training session will cover one or several of the previous topics.

Objectives

The rationale behind the implementation of FOSS is to cut the software costs for governments and public and private institutions and to ease the access to ICT for poorer communities while developing an Arab FOSS ICT economy. FOSS development also promotes the use of legal software and reduces illegal software piracy activities in the region. FOSS provides low cost and high productive alternatives for the existing applications, operating systems and standard utilities.

The main objectives of the training sessions are:

- To present the business models associated with FOSS and the corresponding development opportunities for developing countries in general and the Arab region in particular;
- To prospect the effectiveness of global and local usage of FOSS;
- To demonstrate the FOSS based open innovation and corresponding high value created;
- To familiarize IT persons with FOSS related environment and tools;
- To discuss tactics to migrate from proprietary software to FOSS.

Training Methodologies

The following is a non exhaustive list of the methods that will be used in the training sessions:

- Lectures to present business models, opportunities, cases studies, procedures for migration from proprietary to open-source, use and development processes etc.;
- Panel discussion to present cases, collect and analyze comments from the participants, and brainstorm on specific cases;
- Laboratory sessions to initiate on the use of free software and tools.

Training Venue

Each training session will be organized by one partner in the consortium in a way to cover the whole Arab region. The corresponding training session will be held on the partner premises or in a center of his choice. LCD projectors, white boards and Computers for laboratory sessions should be available.

APPENDIX D – AWARENESS CONCEPT NOTE

Nowadays, “Free and Open Source Software” (FOSS) is a keystone in social and economical development. It is offering significant potential for developing and transition countries around the world. Developed countries has been supporting and widening the use of FOSS for some time. Developing countries, on the other hand, have recently been attracted to support it use, with all what it offers and saves from the financial point of view. This is seen at all levels; academia, private sector, civil society and with less spread, public sector.

Moreover, FOSS is more frequently used by companies and administrations worldwide. Innovative IT-companies are achieving higher turnover using free software. Hence, the Arab region can benefit from this potential. The “Information and Communication Technology for Development in the Arab Region” (ICTDAR) at UNDP, the UNESCO, and the University of Balamand together with Arab partners in the FOSS community have jointly initiated the Arab Support Center for FOSS (Ma3bar) to promote the use and the development of FOSS. A major activity of Ma3bar during the first two years is to increase awareness about FOSS and to train stakeholders in the Arab region to the use and the development of FOSS.

About Awareness

Awareness campaigns targets IT decision maker and IT focal persons of different ministries, public institutions and private companies throughout the Arab world. Training sessions will be coordinated by Ma3bar. They will be divided into awareness raising sessions and training sessions that will be organized alternately at a frequency of three to four sessions a year.

The training and awareness sessions will focus on:

- Business models based on FOSS and the associated opportunities in developing the Arab ICT economy;
- Access of poorer communities to ICTs and the related advantages;
- Legal and license issues related to the nature of FOSS; i.e. the freedom to use the software for any purpose, to access, study and make changes to the source code, and to redistribute the changed versions;
- Alternatives available in FOSS world and how to migrate from existing expensive and proprietary software to freely available software or available at low cost;
- Organization of FOSS development and distribution within a FOSS community;
- Existing resources over the network and services offered by Ma3bar;
- Usage and change of some existing FOSS.

Each training or awareness-raising session will cover or several of the previous topics.

Objectives

The rationale behind the implementation of FOSS is to cut the software costs for government agencies and public and private institutions and to ease access to ICT for poorer communities while developing an Arab FOSS ICT economy. FOSS development also promotes the use of legal software and reduces illegal software piracy activities in the region. FOSS provides low cost and high productive alternatives for the existing applications, operating systems and standard utilities.

The main objectives of the Awareness sessions are:

- To raise the awareness about FOSS in government sector;
- To raise the awareness about FOSS in public and private institutions;

Target Groups

Three different groups will be targeted in those Awareness raising conferences.

- Academic Sector (decision makers level)
- Public Sector
- Civil Society/Private sector

APPENDIX E – APPLICATIONS AND CONTENT DEVELOPMENT CONCEPT NOTE

One of the three main objectives of Ma3bar will be the stimulation of related R&D activities in the Arab Region – specifically the creation of open-source based applications which respond better to the social and economic developmental needs of the Region. This objective has several purposes:

- Strengthening the technical capacities of young people.
- Generating graduates with FOSS experience to encourage wider adoption of FOSS in the Region, for which support experts will be available.
- Improving the Region's participation in the global FOSS movement.
- Helping transform the Region from a pure consumer of technology developed in other parts of the world to a creator and a contributor of locally developed applications, with the associated cost savings and gains in efficiency.
- Economic stimulation as new businesses (applications and support) will be created using FOSS applications.
- Improving the overall collaboration among Arab academic institutions, by encouraging them to work on collaborative projects.

Methodology

This objective will be realized mainly through academic institutions in the Region, who are interested in participating in the initiative.

The applications can be developed in three different ways:

- Formally, as a graduation project/requirement within a university. This can involve both undergraduate and graduate students.
- As research projects for university professors.
- Informally, via technology clubs and elective activities within a university.
- Across multiple universities, through the creation of one application where each university develops a part of the application (e.g. the Miiftaah project which UNESCO and ICTDAR managed, and which involved three universities).

In addition to the above, the Portal should also be a significant means of encouraging collaboration among interested youth (students and non-students) to work on collaborative projects, seek advice, or compare work. The Portal should therefore provide functionality that allows collaborative work and peer reviews.

Funding should be sought from partners, government bodies, and private sector companies to organize competitions and rewards for applications developed in various sectors.

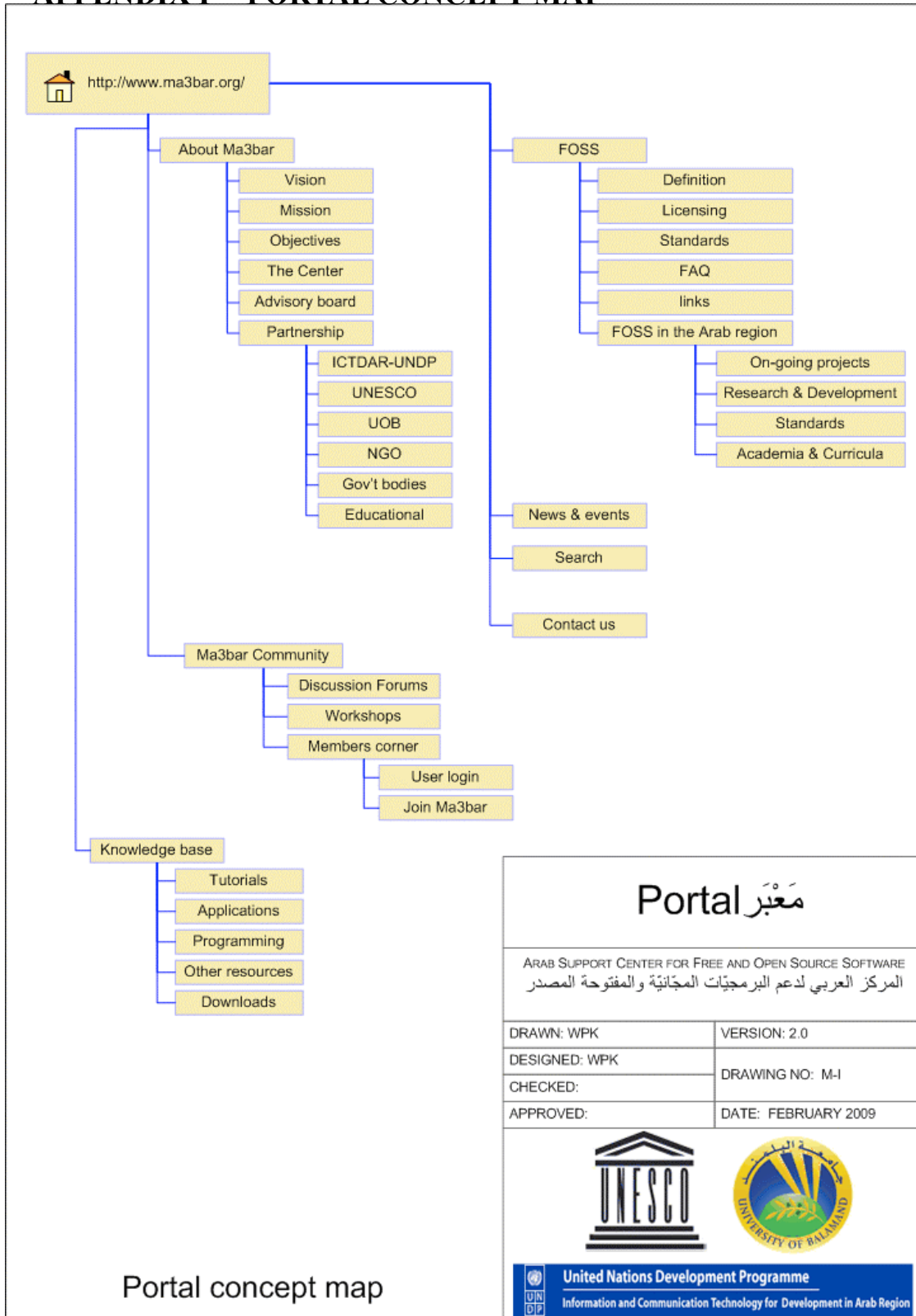
While the projects being implemented with participating universities or collaboratively by various universities should not be limited in scope, they can be guided by the results of the survey and mapping which the Center will conduct. The results of the survey and mapping will help identify areas where there is the most need and benefit from FOSS applications – in order to maximize the potential of turning those applications into small businesses. Such businesses can be both for profit and not-for-profit, as there is a significant demand for low-cost applications in the development sector.

Individuals working on creating FOSS applications should be provided with training on basic business concepts and on how to write business plans. This can either be done in collaboration with schools of business within the universities, or as part of the Center's training activities. ICTDAR can also provide its own SME for Entrepreneurs training. The objective is to help students and professors with interesting applications develop a business plan for how to turn those applications into viable small businesses.




Targets

In its first two years of operations, the Center will attempt to get at least four universities involved in this program with their own students and professors; the Center will also attempt to get at least one major collaborative project implemented between various universities.

APPENDIX F – PORTAL CONCEPT MAP



Portal concept map

<h1>مَعْبَر Portal</h1>	
ARAB SUPPORT CENTER FOR FREE AND OPEN SOURCE SOFTWARE المركز العربي لدعم البرمجيات المجانية والمفتوحة المصدر	
DRAWN: WPK	VERSION: 2.0
DESIGNED: WPK	DRAWING NO: M-I
CHECKED:	
APPROVED:	DATE: FEBRUARY 2009
 	
 United Nations Development Programme Information and Communication Technology for Development in Arab Region	