

Talal Abu-Ghazaleh Organization



TAG-Org



DEMOCRATIZING
WORLD-CLASS
EDUCATION
EDUCATION
WORLD-CLASS



CONCEPT PAPER

TAG-SMART SCHOOL BAG (TAG-SSB)



Talal Abu-Ghazaleh University Company (Lebanon)

Amman Regional Office



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ABSTRACT

The word has been spread and the Arab region is getting ready for online learning or better said- the avalanche- especially the Arab Gulf and less favorably, Yemen and Sudan. The concept ‘online learning’, ‘cyber learning’, ‘digital learning’ has become a daily habit; however, implementation is not stirring as fast as awareness. eLearn magazine relates this slowness to many reasons, one of which is the educational system that hasn’t been prepared yet to meet the digital natives and their demands. In spite of that, substantial interest in online learning is present and several attempts at starting programs in this new pattern have come into sight.¹

The **UAE** has set the stage for online learning a few years back due to its state-of-the-art digital infrastructure. One example would be the American University of Sharjah adopting blended learning modules and for that purpose, establishing the ilearn project where all university courses automatically receive space for didactic interaction.

The Kingdom of Saudi Arabia’s Ministry of Education (MoE) has signed agreements with many companies to design, develop and produce e-content for the Ministry’s scholastic curriculum in the Kingdom. Such companies will be providing the Ministry of Education with a comprehensive e-learning curriculum that contains compulsory school subjects including Shari’a, Sciences, Arabic, Social Studies, Computer, Art, Family Education and Skills. This collaboration is in line with the Comprehensive Curricula Development Project and the Secondary Education Project (Courses System) that are being implemented in the Kingdom of Saudi Arabia. The e-books will be bound to the modern assessment system and can be published on online e-learning portals, DVDs and can be adapted to work on PDA devices. The project, which will be executed over the course of *two years*, will benefit the education sector in its entirety, particularly male and female students, supervisors, school libraries and computer labs. Moreover, the curriculum’s digital content will be designed in accordance with the best international educational standards and will be comprised of the latest teaching and learning methodologies.² Hence, the Kingdom of Saudi Arabia (KSA) is shifting towards online learning and realizes that certain equipment needs to be available to enhance the role of smart learning.

A while back, **Egypt** took a different drive that eventually has been leading to digital learning. In 2004, Egypt adopted the TEO (Teach Essentials Online) which was developed in collaboration with the Ministry of Communications and Information Technology. TEO tackles the issue of adorning and supplying Egyptian teachers with methodologies and tools to help them integrate technology in their regular national curriculum. This saves up to fifty percent of face-to-face time needed, which helps ramp up the implementation rates recommended by the Egyptian Education Initiative (EEI) sponsored by the World Economic Forum. Egypt was a pioneer in

means that Egypt conducted early studies and foresaw that training teachers and professors would result in satisfactory levels of online teaching skills.

Egypt has been successful in training 54,000 teachers. This will positively affect the teaching and learning environment driven virtually; the trainees - on the long-run and throughout the TEO program- will be copiously equipped and ready to teach online.³

These examples emphasize on the eLearning baby growing bigger every single day. Hence, the purpose of this paper is to display the Talal Abu-Ghazaleh Organization (TAG-Org) potentials and disclose the TAG-ORG local, national, and global past and up-to-date accomplishments. Also, to illustrate how TAG-ORG responds to the rapid change in technology and how its services meet online education needs through TAGITOP (a laptop specifically designed for Arab users after TAG-Org partnered with Samsung) and TAG Cloud to contribute to the Talal Abu Ghazaleh Smart School Bag (TAG-SSB).

INTRODUCTION

The above situations are only a few images taken from the Arab World. Worldwide speaking, some of the nations like the United States, India, China, South Korea, the United Kingdom, Australia and South Africa are really stepping up the game when it comes to online education as declared by many online articles.⁵

Hence, the recent initiatives and factual Arab World and global examples show and emphasize that the move is escalating towards converting curricula into e curricula and e content and substituting the infinite number of books with one device that is capable of reimbursing students, teachers, supervisors, and educational staff with the required study materials and more. As a natural reaction and direct response to Smart Learning, the TAGITOP or TAG-SSB has been developed to take over the role of print books and offer the below characteristics;

1. Portability: TAGITOP or TAG-SSB can be transported at the speed of light anywhere around the world instantly.
2. Environment Protection: The TAGITOP or TAG-SSB saves the use of ink and paper leading to a greener environment and less cut-down trees.
3. Added Values like:
 - a. **Color Enhancement:** Adding color is another advantage to having books online. The student may also get the chance to change colors or highlight certain paragraphs or statements for practice purposes.
 - b. **Font Size:** Change the font size of the text which, in turn, helps the students who have vision problems or personal view preferences.
 - c. **Sound Capabilities:** Sound can be used for several key pedagogical benefits. Sound files can be created so that the students can play back the reading as they read a passage of text.
 - d. **Hot Spots:** This feature enables the students to move back and forth across a book instantaneously. The student will see all the chapter headings and key subsections always. He/she may also copy and paste the key word he/she would like to translate or look for through the internet at the same time.
 - e. **Material Update:** This feature gives tremendous pedagogical value over traditional print formats, especially in curriculum areas where knowledge can go out of date. The content or curriculum for the student's TAGITOP or TAG-SSB can be easily and accurately updated whenever there are instructions to do so with one click away. Updating one's e-content is easy and requires no added expenses. Furthermore, the ability to make changes quickly and timely creates a "**living**" document.

- f. **Versatility:** Adobe Acrobat allows for consistency of the intended message regardless of one's platform. This means that page layout, fonts, images, and colors are preserved giving the same look and feel as the authoring software's document. It is platform-independent creating a "universal language."
- g. **Adding Comments:** Students can add their remarks or notes on certain parts of the book.
- h. **Bookmarks and a Table of Contents:** Bookmarks and a table of contents with each chapter title associated to its source material by a hotspot facilitate the versatile nature of TAGITOP or TAG-SSB.

A. A COMPARATIVE ANALYSIS OF ICT INTEGRATION AND E-READINESS IN SCHOOLS IN THE ARAB STATES

The constitution of the United Nations Educational, Scientific and Cultural Organization (UNESCO) was adopted by 20 countries at the London Conference in November 1945 and entered into effect on 4 November 1946. The Organization currently has 195 Member States and 8 Associate Members.

The main objective of UNESCO is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to foster universal respect for justice, the rule of law, and the human rights and fundamental freedoms that are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.

To fulfill its mandate, UNESCO performs five principal functions: 1) prospective studies on *education*, science, culture and communication for tomorrow's world; 2) the advancement, transfer and sharing of knowledge through research, training and teaching activities; 3) standard-setting actions for the preparation and adoption of internal instruments and statutory recommendations; 4) expertise through technical co-operation to Member States for their development policies and projects; and 5) the exchange of specialized information.

A.1. UNESCO Institute for Statistics

The UNESCO Institute for Statistics (UIS) is the statistical office of UNESCO and is the UN depository for global statistics in the fields of education, science and technology, culture and communication. The UIS which was created to improve UNESCO's statistical program has conducted a recent 2013 comparative analysis of ICT integration and e-readiness in schools in the regions; Egypt, Jordan, Oman, Palestine and Qatar.

Due to the fact that global economic competition has been increasing, many governments started giving attention to improving the quality of education which in the end should lead to equal opportunities; learning is a human right regardless of venue, time, one's origins, etc...

The term ICT has been understood as the tool that has plentiful effects regarding the educational line represented with;

- a. Being accessible to students living in remote areas,
- b. Setting up the students with new sets of skills and motivating them;
- c. Elevating and improving the training levels of teachers or instructors, and
- d. Reducing the costs that are associated with the delivery of instruction.

A.2. ICT in the Arab States

Many Arab countries have already prepared their generation for ICT uptake by fitting national network upgrades, improving teledensity and introducing new Internet Provider delivery technologies. Just as many countries have achieved high rates of ICT access in schools, others are still suffering from the restrained number of computers and the high levels of technological obliviousness.

The Talal Abu Ghazaleh Organization (TAG- Org) and UNESCO worked collaboratively on producing a report that touches on the ICT development and progress in the Arab States. TAG-Org has been the support party and partner by means of;

- a. Translating the ICT integration and e-readiness in schools in Egypt, Jordan, Oman, Palestine, and Qatar report from English to Arabic, and
- b. Providing data - such as the contact information for ministries of education and some key points to consider - regarding the researched countries in terms of ICT and online learning.

Moreover, the UIS-TAG-Org report spotted the three main aspects that control the digital divide in the Arab countries; the divide between the Arab world as a whole and other regions; the divide across Arab countries; the divide within Arab countries. This was classified taking into consideration the demographics, location, ethnicity, and culture.

A.3. Findings

ICT adoption and policies in education require a deeper study in terms of all aspects of the ICT in education ecosystem such as contents (use of OER, Free and Open Software (FOSS), and other open solutions for learning), access to and use of hardware (devices, including mobile technologies, one-to-one computing options etc.), connectivity, as well as ICT issues related to pedagogy, and learning (including digital literacy, and issues of assessment) as well as teacher training.

UIS-TAG-Org arrived at the aforementioned results by focusing on four specific types of data:

- a. The use of ICT in fundamental curriculum areas like Sciences, Math, Computing, Arts, as well as first and second language learning,
- b. ICT infrastructure to support the integration of ICT in educational institutions,
- c. The teacher's use of and training on how to use and teach ICTs in classrooms, and
- d. The participation in programs offering ICTs.

There is still a need to investigate the four aspects that outline the basic usage of ICT and ICT access further and in details due to the fact that some information is missing and requires

accurate diagnosis. Profound study of those elements will develop sufficient impacts on learning, will reflect automatically on the student's expected performance, and will set the line for policy makers to decide on best practices, priorities, and policies regarding ICT. Hence, UNESCO is considering future collaboration with its Member States and is seeking the most advanced methodologies to reach accurate and timely data.⁴

To read the full report of the above summary- as prepared by the UIS-TAG-Org, please find this [link](#).

B.TAG-SMART SCHOOL BAG: SHIFTING TOWARDS THE ‘DIGITAL AGE’ TO ADDRESS THE NEEDS OF DIGITAL NATIVES

B.1. THE WAY FORWARD

The idea of smart learning triggered and created certain elements that make the learning environment a complete process. Just as the students and the teachers would communicate virtually, all content and curriculum like textbooks, dictionaries, or any supporting documents would naturally be transformed into e-materials. This would be the first step that contributes to smart learning. “Educational activities that were administered only during limited school hours can be engaged in whenever students want, through online classes and cloud computing services.” ^{6,7}

There have been many attempts to link smart schooling to online content. One of those initiatives was the “e-Book Project” in 2009 which provided a netbook that included digitized textbooks, test preparation programs, Al Quran, and dictionaries. The project was a success but was encountered by the challenges of the e-Book content and the online resources.

Taken the issues that faced the e-Book Project and other virtual school bag pursuits into consideration, At Talal Abu Ghazaleh, we decided to design a one-size-fit-all product that solves the conventional problem of primary school children pulling their trolley schoolbags and parents or adults carrying their school bags. Also, our legacy will reduce “the digital divide between the rural and urban as well as between the high and low income families in terms of access to computer and computer literacy in schools and at home, starting at young age.” ¹⁴ Moreover, our invention overcomes the dilemma of e-content consistency and certified online educational resources. Our commodity is called TAG- Smart School bag (TAG-SSB). TAG-SSB realizes the impetuous growth in population and works on sparing schools the morning and evening shifts by providing the students with other online learning options from home or any other place. This in turn, releases the schools from unnecessary expenditures like the electricity and water bills, teachers’ salaries, and all other related operational fees.

In the next paragraphs, it will become clearer why it is extremely important to start the TAG-SSB scheme after learning about the history of smart education and how this is directly related to the Smart School Bag. Moreover, there will be further examination of the features and

characteristics that the Smart School Bag has to offer and the efficiency of TAG-SSB in this evolving e-World.

B.2. SMART LEARNING & SMART SCHOOL BAGS

Muhammad Yunus, the Nobel Peace Prize Winner" has advised in 2013 that technology gives us *tremendous power* to solve this stark problem all around us. We need to design these so no child is left out of this. What need to ask, what is education after all? We need to resolve that. What are we getting our young people ready for? It's for the purpose of our life. And we need to make sure we give people a purpose to their life. *It won't be done by current system.* It will be done by people who have nothing to do with current system." This is where TAG-SSB is originated to create a new system now that the world is ready for online education/learning and the teachers have been receiving thorough training in multiple national and international countries some time back. Also, TAG-SSB will path the way for the students by supplying them with TAGITOP or TAG-SSB which will break the conventional norm that works no more with digital natives. So, instead of going through the hassle of buying print books, collecting the educational material, putting pieces together, wondering if the books are latest edition, find supporting resources aside, routinely and daily carry your school bag, and worry about losing any of your books or tools, you would only need to hold one device which gives you all these benefits and more.

Hence, the expression of doing new things in new ways is indeed smart learning. It is also the learning and teaching that is facilitated and supported through the proper use of communication technologies and information. To show in brief what smart learning is all about, we are defining the below points;

- a. An Unlimited number of students can study virtually,
- b. Students can learn anytime, anywhere (flexibility and on-demand),
- c. The students can learn at their own convenience (self-paced learning),
- d. There is a facilitated access to digital textbooks, e-library, and other supporting materials,
- e. Support by images, audio, videos, simulation, and multimedia is provided,
- f. Cost-effectiveness by saving transportation, books cost, etc...,
- g. Central control of content,
- h. Same quality of content and education for everyone, and
- i. Repetition: the content is repeated as many times as you need.

It has been determined in different articles that one of the threats that need to be solved regarding smart learning is the Equipment and technology requirements which restrict the adoption of e-learning. Hence, it is vital to recognize the importance of working in parallel towards enhancing smart learning and offering the machine that is dedicated for online learning purposes. This means that the two new trends are inseparable and complete one another.⁸

B.3. THE ALL IN ONE SOLUTION

When laptops were invented, they looked extremely distinctive from what they have become nowadays. Osborne I was the first laptop that was invented in 1981 by a book company. At that time, **Osborne I** and later versions like **Kypro II** weighed 23.5 and 29 lbs. Moreover, those laptops carried many disadvantages as they were large, heavy, and costly with tiny computer screens.^{10, 11}

Moreover, laptops are evolving machines that are developed to fit the community needs and challenges just like Smart Phones.

Mobile phones were first created to make phone calls and provide text messaging services by means of interaction with the surrounding society wherever you are. While those cell phones were being upgraded, they were enriched with features that are similar to computers. This encompasses sending and receiving emails and editing and/or creating Microsoft Office Tools. Smart Phones are based on operating systems like BlackBerry, Android, etc... Also, they allow you to download unlimited applications, edit photos, find directions using the GPS, and create musical playlists. Most of them offer high-speed web access to let you browse your favorite websites.¹²

B.4. WHAT WOULD THE ALL IN ONE SOLUTION INCLUDE?

TAG-Smart School Bag is the one and only solution to meet the needs of extant learning modules and the new avalanche coming our way. The TAG-SSB is designed and customized to respond to the new world tsunami by providing:

- 1- A transformed content that abides by the local ministries of Education curriculum in the different regions.
- 2- A revamped content that is regulated by the International curricula and programs like the IB, IGCSE/GCE/GCSE, SAT, and AP. This content would be approved based on the various educational providers. Hence, it is either we alter the materials into e-content or partner with those providers to place their readily-made e-content within the TAG-SSB.
- 3- Bountiful dictionaries that are itemized for fields like IP, IT, and Law.

- 4- Boundless access to the list of top-ranked e-libraries for research purposes and guided reading.
- 5- Exclusive access to TAGIPEDIA which is the professional general encyclopedia that contains all kinds of knowledge data.

B.5. TAG-SSB EQUALS PRICELESS BENEFITS

Having mentioned the swift change from traditional learning to smart learning, it is worth noting the great benefits that TAG-SSB has to offer for both the students and the teachers involved in the learning process.¹³ Not only does TAG-SSB relieve the pains of carrying excessively-loaded school bags that contain at least 12 textbooks and stationary but also TAG-SSB is known for many more factors that make it number one solution for everyday practice.

Thus, how is TAG-SSB different, distinguished from, and excels all other laptops or Virtual School Bags that are or will be present in the market?

PORTABILITY

The main appeal to using TAG-SSB is that it is handy, i.e. accommodated per size and weight. This is measured against the issue of carrying heavy school bags which represents an eternal problem faced by parents and students alike. Apart from carrying five to six textbooks, primary school children would have to bring exercise books, workbooks and other materials in their heavy schoolbags.

LOCATION

It's possible to store everything you need for personal and educational use on the same computer and take it with you wherever you go. So, TAG-SSB is highly practical for you. This computer also eliminates the need for a computer lab.

SPACE

TAG-SSB takes up little space, and you can take it home with you for vacations and off-seasons realizing that it is a multi-purpose machine; you may study at a class, take along for a business trip, or even play games and chat with your friends at a coffee shop.

COST-EFFECTIVENESS

There are many ways of saving money using TAG-SSB. First, there would be no need for books as TAG-SSB has the books and materials displayed digitally - bearing in mind that the books are expensive in comparison with online textbooks that can also be found for free. In addition to that advantage, TAG-SSB saves you the cost of shipping and handling.

PROTECTION AND CONTROL

With this device, certain restraints are placed to control and protect the online content and the materials you save on your TAG-SSB. This online content would be downloaded from approved educational sources.

FLEXIBLE UPDATES

Instead of having to buy new books or review numerous resources to keep the content you are learning about up-to-date, TAG-SSB facilitates the process of updating your online textbooks and learning resources by simply downloading the latest related applications or versions.

ACCESS TO KNOWLEDGE

TAG-SSB provides you with access to a huge number of resources whether through our remarkable dictionaries, access to e-libraries, TAGIPEDIA, and many more.

CONFIGURATION OPTIONS

You will be granted multiple configuration options where the memory of your TAG-SSB is adjusted to endure the sum of information you are required to fulfill.

GO-GREEN

Not only will you save yourself the cost of buying books but also you will be part of protecting the environment by cutting down on the use of paper, ink and wood.

PRICE

Because we care, we have developed two-screen sized TAG-SSBs. It is up to you to choose which screen size is proper for you. Based on that, our prices vary and have been studied thoroughly not for profit reasons but for mass distribution and production which result in quite affordable prices.

BATTERY & MACHINE LIFE SPAN

Laptops generally offer long battery life. TAG-SSB's battery life is extended up to 6 hours. As an added value, you may recharge your computer batteries using the setup for charging spare batteries at the school premises for the benefit of students or teachers. Moreover, TAG-SSB resumes functioning at its best for around three years.

It is now clear that in order to avoid the avalanche or tsunami that would be striking us soon is to go with the flow by quickly adapting to the fact that the coming world belongs to Digital Natives and should run side by side to meet their needs and demands.⁹

B.6. SMART SCHOOL IN THE CLOUD: CREATING THE BEST SMART SCHOOL BY AVOIDING SMART SCHOOL PAST AND CURRENT PITFALLS AND MAKING USE OF CONVENTIONAL SCHOOL GOALS

SMART SCHOOL IN THE CLOUD vs. BRICK & MORTAR CLASSROOMS

Nowadays, online learning for students in elementary and secondary education is becoming highly questionable, especially with the hasty expansion of full-time smart schools.

Unfortunately, very little research evidence exists concerning costs, consequences, and accountability related to smart schooling because this online stream grew quickly and appeared unexpectedly. Barth, Hull, and St. Andrie (2012) noted that “news organizations, rather than education researchers, seem to be taking the lead in investigating and reporting the effects of smart schools” (p. 2)¹⁵. In spite of the fact that smart school outcomes are not defined properly, we are still moving towards permitting fulltime smart schools. Therefore, we need to pin point the major issues that form a smart school and affect its functionality.

B.7. CONCEPTUAL FRAMEWORK

The Smart School is a Malaysian education system which was constructed by learning institutions in order to prepare children for the Information Age. Therefore, the purpose of this report is to learn more about full-time smart schools and better understand whom they serve, how they operate, and their impact on student learning. We are doing this by studying schools that have adopted smart school systems in the U.S. and other regions in the world for both elementary and secondary levels.

In 2006, a policy brief that was published by the NACSA displayed a framework which illustrated a wide array of online options, ranging from delivery of individual courses, to hybrid or blended learning (i.e., part of the instruction in a given course is face-to-face, and part is delivered online), to full-time smart schools.

Full-time smart schools are also known as *cyber schools* or *online schools*. Those deliver their curriculum and provide instruction via the Internet and electronic communication. It has been found that most smart schools are full-time and asynchronous, with students learning from home and teachers working out of an office building or their home.^{15,16}

Therefore, we need to check the readiness and feasibility of adopting the Smart School in the Cloud project and the mechanism of applying this new innovation and trend of learning on real solid grounds not only to meet Jordan's educational system requirements but also to become the one-size fits all Smart School driven by the new generation pursuit.

B.8. TYPES OF SMART SCHOOLS

All types of online learning are expanding; however, full-time smart schools are gaining the most attention.

Sometimes it is hard to reflect on the future impact of smart schools because those rely on various models of learning. Because the concept of a smart school is still emerging, and the related technology is constantly changing, trying to define a smart school is like attempting to hit a moving target. Smart schools are divided into three categories which all rely one way or another on the internet.

B.8.1. Asynchronous (Independent)

This kind of study is self-paced meaning that a student can access the materials anytime. No chat or videoconferencing tools are available for this online category, however, e-mails can be used. This model be called the "asynchronous" because it does not rely on one-on-one interaction between the students and the teacher.

B.8.2. Synchronous (collaborative)

Live chats and videoconferencing between the students and the teachers are main parts of this type of learning. Hence, continuous communication and feedback is received and sent at certain times upon the schedules made and agreed upon. Socialization is an added value to this method but it does not represent a 24/7 reach taking into consideration the time zone differences.

B.8.3. Broadcast

Students access lectures or broadcasts, usually on the World Wide Web. There isn't possibly any interaction.

Moreover, some smart schools create a mixture of the online smart categories to create a sort of interaction between the teacher and the student. This can be considered a fourth type of online learning.¹⁷

B.9. CURRENT EXAMPLES OF SMART SCHOOLS

Some smart schools like [Smart School for the Gifted](#), [Babbage Net School](#), [Crick County Primary School](#), [CyberHigh](#) and [Kentucky Smart High School](#) allow students to work from home - using the Internet - and aid the students in completing some or all of their elementary or high school work without being part of a conventional classroom.¹⁷

B.10. WHAT EQUIPMENT IS NEEDED TO START A SMART SCHOOL?

In order for a Smart School to successfully provide a convenient study place, it has to be equipped with proper human resources and software and hardware components. Some of the components that are vital for every virtual Smart School are:

Renowned Teachers

The virtual school should have teachers that are renowned for their strong ability to teach and capability to train students in a virtual environment effectively. The teachers should have the right certification and qualifications in order to have a hundred percent guarantee that they are taught in a manner that increases their learning depending on the courses that they have chosen.

User management

Information regarding students' names, registration, attendance, and grades are managed through this component. User management can be added, edited or deleted from a dedicated database. Teachers also have their own information database to be managed similarly. If the school is set to be virtual on the whole, then it can have a special online payment component where students can register and pay online.

Course management

This function is designed to help Smart Schools manage the course enrollment, class allocation and timetable scheduling functions. Course Management helps manage multiple courses, teachers and students, times and locations, attendance, penalties and rewards, boards, forums, content, quizzes and polls, and reports and scores.

Content management

With this component teachers and instructors can design courses outline as well as the content of the course. It can also be used to manage quiz, poll and exam questions.

Teachers can share local files, photos, audio recordings, movies, applications and URLs in Content Library. The content library should serve as the source of information for students where they can download course materials or download other supporting materials for the course.

A general E-Library could also be present which contains eBooks, e-Journals and other electronic content format that can be downloaded by students.

Evaluation and progress tracking

The system should be capable of closely keeping track of the progress of each student. This can be done by conducting numerous quizzes, polls and online exams. Teachers also have the capability to access the students' screens to monitor their progress, activity, and participation.

Communication and collaboration

Communication and collaboration tools are the core of any online Smart School. They are the base of online interactive teaching and learning.

There are many forms of communication and collaboration which can be either teacher – to - single student, teacher - to -group of students, student-to-student or student - to - group of students. Transferring information between different parties can be in the form of text, audio or video. It can also be synchronous or asynchronous.

Below are some of the communication software tools that can be present in the smart school:

- Online video and audio conferencing
- Emails
- Online Forums
- Wikis
- Chatting
- Presentation software
- File sharing capabilities
- Screen sharing
- Remote desktop
- Screen monitoring
- Whiteboard (shared drawing window)
- Online simulation and virtual reality applications to support lab and experimental work

Virtual Environment

If it is decided that the smart school is to be fully virtual, then a virtual environment should also be developed. The smart school should have the ability to create virtual places including virtual classes, offices and collaboration rooms and assign courses to those places. Through this, students can register in one of those courses and find the right virtual place whenever they need to. ^{40, 41}

Hardware Requirements or Cloud Computing for Smart Schools

Cloud computing as an emerging technology is a new paradigm in Information Technology and can dramatically change our everyday life. It has become one of the most buzzed-about tech trends and solutions that improve IT and operational efficiency for businesses. Cloud computing services are a growing necessity for business organizations. From marketing strategies to technology-focused operations, the needs of educational institutions don't differ too much from enterprises.

Although schools have been using “cloud-based” applications for years (e.g. email), the cloud computing trend is quickly evolving into a premium model for data storage and exchange.

Higher educational institutions recognize that adopting the latest technologies and solutions is essential to staying competitive and retaining students. Cloud computing can actually help institutions reduce high expenditures on hardware, software and IT maintenance. Cloud computing provides businesses with a centralized, virtual data center that is accessible to faculty and admissions personnel anytime, anywhere. ^{34, 37}

B.11. ABOUT TAG CLOUD

Keeping abreast of the rapid development in ICT and its impact on business, service and other sectors, TAG-Org launched the Cloud Computing Consultation Service. The new service will help introduce all computing technologies to all businesses and service sectors in the Arab world. TAG-Org is proud to be the first corporation to create its own e-cloud in the region.

Mission

Introduce the cloud as an asset for our clients companies, offer customized solutions to them, and incorporate such technology in their plans.

We strive to make computing cloud integrated with and complementary to your work. Our business grows with yours. We work closely with you, hand in hand, to achieve that aspired growth.

B.12. VALUES ADDED

COST REDUCTION

Cloud computing can easily help users save on overhead charges such as the cost of data storage, software updates, management, and, most importantly, cost of quality control.

HIGH SPEED AND SCALABILITY

Depending on your requirements, you can easily scale up or down the services in order to avoid plugging in new hardware or installing new application software where it is not really needed.

FLEXIBILITY OF USAGE

Using and accessing Cloud computing services can be done from any device, whether it is a computer or a mobile phone such as iPhone.

INNOVATION IN TECHNOLOGY

Cloud computing manages or owns the resources on behalf of you, in addition to providing you with the complete benefits.

SELECTION OF LOCATION

You can minimize your overhead expenses and select the location for infrastructure freely depending on your requirements.

B.13. CLOUD COMPUTING SERVICE MODELS

INFRASTRUCTURE AS A SERVICE (IAAS)

IAAS model is used to provide pre-provisioned virtual resources, which can be a server, a database or an application, for IAAS is considered the most basic cloud service model. In this model, providers offer computers – either virtual or physical machines - in addition to other resources. This also allows leveraging existing assets to provide resources with high availability, strong security and excellent reliability.

PLATFORM AS A SERVICE (PAAS)

In this model, cloud providers deliver a computing platform which includes an operating system, a programming language execution environment, a database, and a web server. This permits the developing of applications on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers.

SOFTWARE AS A SERVICE (SAAS)

In the SAAS model, cloud providers install and operate application software in the cloud, and users access the software from cloud clients. Furthermore, cloud users do not manage the cloud infrastructure and platform on which the application is running. This eliminates the need for installing and running the application on the cloud user's own computers simplifying maintenance and support.

B.14. DEPLOYMENT MODELS

PUBLIC CLOUD

Vendors dynamically allocate resources (hard drive space, RAM, and processor's power) on a per-user basis through web applications. This model has more advantages for Small and Medium scale industries.

PRIVATE CLOUD

Under this model, a dedicated private cloud is operated for an individual organization. The cloud is deployed within a corporate firewall and runs on the same infrastructure that the corporation uses in the rest of its computing procedures.

COMMUNITY CLOUD

Community cloud shares infrastructure among several organizations, whether managed internally or by a third-party, in addition to being hosted internally or externally.

HYBRID CLOUD

This model offers the advantages of multiple deployment models as a composition of two or more of the other types of clouds.

B.15. SERVICES

CONSULTING SERVICES

We are here to serve your company at all levels. We are keen to enable your company to further your core values, and achieve the best performance levels which require an optimal combination of talented and capable human resources and strategic, process and technical resources.

We believe that offering the best solutions depends on profound understanding of your business needs, and we work closely with your organization to implement the best solutions.

Not only does TAG Cloud Consulting Services advise you, but also TAG Cloud implements the necessary changes to improve the effectiveness of our integrated and end-to-end cloud solutions and services to meet your requirements and bring continuity and consistency to your business strategy.

B.16. Cloud Computing is the Future of Smart Schools

The new solution to the challenges of modern teaching in schools is *Cloud Computing*. Students can access lesson plans on their PC or tablet (like an iPad), and work through the lesson. These lessons can be accessed at any location and anyone can use the resources freely.

The teachers use the platform for teaching, the students use the platform for learning, and parents can use it to see how their children are doing at school and share their feedback with the teachers. At the same time, participants can ask and answer questions and share knowledge to help others.

However, this isn't only a matter of technical architecture. Building an open platform with core resources which are combined with lessons, e-books, and a testing database enables partners, including publishers, to contribute to their work by providing teaching content, and allows users to use their software.^{35, 36}

B.17. How can cloud help Smart Schools?

- Accommodate the rapid increase in the mobile device's dependency,
- Store expansive amounts of sensitive data and information that's easily accessible,
- Stay current (e.g. provide students with digital campus storage for class notes, papers and projects),
- Acquire and implement the latest software and application updates,
- Streamline enrollment and admissions processes that are costly and time-consuming, and
- Turn to subscriptions that are scalable and provide options. ³⁷

B.18. The Smart School in the Cloud Components

The School in the cloud solution is made up of several elements: client, data center and distributed servers.

Clients: Clients are devices that the students interact with to manage their information on the cloud (Smart Phones). Clients generally fall into three categories:

- **Mobile:** Mobile devices include PDAs or Smartphones.
- **Thin:** are computers that do not have internal hard drivers, but rather, they let the server do all the work, and then display the information.
- **Thick:** This type of client is a regular computer that uses a web browser like Firefox or Internet Explorer to connect to the cloud.

Datacenter: The datacenter is the collection of servers where the application to which you subscribe is housed. It could be a large room in the basement of the building or a room full of servers on the other side of the world that you access via Internet. A growing trend in the IT world is virtualizing servers. That is, software can be installed allowing multiple instances of virtual servers to be used. In this way, we can have half a dozen of virtual servers running on one physical server.

Distributed Servers / DR site: This component gives more flexibility in options and security. That is if something were to happen at one site, causing a failure, the service would still be accessed through another site. Also, if the cloud needs more hardware, we needn't throw more servers in the safe room as we can add them to another site and simply make them part of the cloud.

Cloud computing is a rapidly growing, yet evolving model that offers significant advantages and potential fallacies as well. It's no debate, however, that cloud computing has positioned itself as a technology information deployment system that's not going anywhere. From small businesses and major enterprises to elite schools, universities and online colleges, cloud computing seems to be worth exploring.^{38, 39}

B.19. Smart School Advantages

Every model in the world has advantages and disadvantages. The best means of recognizing the benefits of Smart schools is by measuring the impacts of conventional schools and those of Smart Schools. Then, we need to determine which paradigm outweighs the other. Also, there is a continuous need to diagnose the dark side of Smart Schools in order to find alternatives or solutions to avoid them in the future when learning ONLINE.

The advocates of smart learning believe that smart schools hold advantages like the following:

1. Graduating ahead of schedule.
2. Smart schooling is a permanent solution to limited or conflicting class schedule(s) or better stated provides a 'flexible schedule.'
3. Smart schooling is an alternative to a traditional school setting (prestigious).
4. Necessity to attend and travel to face-to-face classes is no longer required as digital media would be integrated into the curricula.
5. Smart schools are a great equalizer, as they can make education accessible to non-traditional students (full-time workers, single parents, etc...).
6. Additionally, Smart schools are a commodity as they allow students with physical disabilities or transportation issues to study and learn without having to move to a physical location for schooling. Also, Smart Schooling facilitates learning for those living with illness or other challenges.
7. Students who are committed to a job or have family obligations are able to attend smart schools at any time of the day.
8. For parents returning to school, Smart Schools allow them to fit schooling into their busy schedule. So, for individuals who are self-driven, this type of study is the answer.
9. Substantially, smart schooling provides individuals with the opportunity to practice critical thinking activities in the environment of their choice because in the end they are not influenced by others and can start doing research and come up with decisions and findings themselves.

10. Smart schools motivate the students to build upon the twenty-first century skills which include global awareness, computer literacy, self-directed learning, online communications, collaboration, and so on.
11. Smart Schooling is sometimes equivalent to a directed-learning program when the method used for learning is synchronous or collaborative.
12. Some Smart Schooling - depending on the program or curriculum - may include online study groups or study chat rooms as an added value, in which students interact with each other online. These group meetings are possible through Elluminate, Wimba or other means.
13. Smart Schooling opens doors to learning opportunities for small or rural schools that do not provide enough or adequate staff. ^{17, 24, & 33}

B.20. Smart School Concerns

An alternative schooling system should reasonably guarantee that as students mature through this learning system, they will be tolerant and understanding citizens. Hence, listing the disadvantages of Smart Schooling is also valid to consider, avoid, and solve.

1. The cost of starting up a Smart School.
2. The affordability and access to the internet and digital technologies such as a working computer.
3. Issues regarding accreditation.
4. The few studies that were carried out to evaluate the future consequences of this kind of schooling.
5. Staying focused and on task is the most difficult aspect of learning online.
6. Because no face to face interaction takes place between the student and the professor in many online classes, the students must work in a self-guided manner, which may be challenging. Communication takes place by e-mail, video conferencing, or on a set class forum, so answers to questions may come slowly.
7. Life-long friendship patterns would be reduced keeping in mind that children make friends especially at a young age. As a result, the long-term effect on the relationships in the society is obscure; poor socialization might lead to problems in years to come.
8. Online learning teaches facts rather than making people wise and so this value can be lost.

9. The school subjects themselves would change, and become less rich. The teaching method will affect the content as well.
10. Differences in learning styles can mean that some students may learn less effectively than before knowing that conventional schools barely enrich the students' knowledge and skills. A generation may grow up without the social skills necessary for a rapidly changing world.
11. The Cost of online classes, which can range from reasonable to quite high fees. ^{17, 24, 32 & 33}

B.21. Case Study: Local Curriculum Rules and Standards – Jordan Ministry of Education

Critics argue that for online education to be taken seriously, online programs must adhere to generally accepted educational standards. One way that smart schools are proving their effectiveness is the implementation of the same standardized testing that brick and mortar schools require of their students. Therefore, standardized testing is the first step in monitoring online programs; however, the quality of accreditation varies significantly. For example, AACSB is the most influential accreditation agency for business schools and no smart schools have received accreditation by this agency yet. ^{30, 32} So, if we are starting this project locally, we need to take into consideration the educational standards (eContent) and the testing regulations that are adopted by the Ministry of Education in Jordan and their compatibility with Arab Countries assuming that those regions are our target. According to the Ministry of Education (MoE), education in Jordan is divided into three main phases; a two-year pre-school education, ten years of compulsory basic education, and two years of secondary academic or vocational education after which students sit for a General Certificate of Secondary Education Exam – the Tawjihi. Optionally, the students that are studying in private schools may decide to sit for the IB, IGCSE or GCSE, GCE, SAT, or the AP instead of the Tawjihi. Each test has its own requirements and number of courses to complete within different age stages. ^{21, 22, & 23} Also; every educational phase has a set of goals and objectives that need to be met as stated by the Jordan MoE.

Having revised the Ministry of Education website, I have found that there are initiatives towards transforming the curricula into online content for “electronic learning” purposes. Also, the MoE has created an “online registration form” only for the Tawjihi, however, a learning online system has not been yet developed in Jordan. Moreover, I have come to the closing that the curriculum should address the physical, mental, religious, spiritual, emotional, and social fields so that - to mention a few:

- The student is capable of using the Arabic language adequately and smoothly to express and communicate efficiently with others.
- The student fully realizes the facts and expressions that are related to the environment, geography, the population, and the social and cultural atmospheres locally and globally. He or she should be able to use those terms in real-life situations.

- The student wholly realizes the culture and the morals associated with the culture through which he/she understands the present and aims at moving to the future.
- The student is open-minded towards new and innovative ideas in a positive manner.
- The student gains sufficient skills in technology and makes use of that technology to serve the community.
- The student is capable of linking the information he or she is learning in order to anticipate and make conclusions.
- The student gains the skills of problem solving and decision making. ^{19, 20}

B.22. Budget

The Smart School in the Cloud project cost will be hard to define unless we determine the number of users, classrooms, or halls we are willing to dedicate. All this information is directly linked to the infrastructure and software needed for this project. We can make use of the below reports to anticipate the cost of a K12 full-time virtual school.

- Full-time smart schools are cost-effective as those save facilities, operations, transportation, and food services.
- Based on various smart schools expenditure models, full-time smart schools have more students per teacher and reduce overall spending on teacher salaries and benefits, particularly for special education instruction or tutoring.
- Full-time smart schools have to spend more on computers and the development of online curriculum or eContent and the building of learning platforms. In addition to that, these schools would need to spend more on marketing and recruitment of students than traditional schools do. ¹⁶

B.23. Findings

Before seriously starting out or even considering a Smart School, there's a great demand to understand that the school is not only being shaped for business profits but also for high-quality student performance. Both end goals are vital and work coherently as one contributes to the other and keeps it flowing and alive. Therefore, having gone over a few articles, I found the following statistics;

- Only 27.7% of K12 Smart Schools reported meeting Adequate Yearly Progress (AYP) in 2010-11. In the states as a whole, nearly 52% of public schools met AYP that very same year.
- AYP is an awkward indicator of whether or not schools are meeting state Standards or not. Despite that, a large gap has been reported regarding the 25% percentage point

between the proportions of smart schools compared to the proportions of brick-and-mortar charter or district schools.

- The main concern was that many Smart School Students were unable to meet the AYP in terms of Math or Reading assessments (or both).
- Only seven Smart Schools out of the thirty-six had ratings that indicated satisfactory progress status.
- Student enrollment went down remarkably as many families appeared to approach the smart schools as a temporary service, as 23% of Smart Schools Students were enrolled for less than a year and 67% had been enrolled for fewer than two years. ^{18, 26}
- There's a need to pay attention to the issue of adequacy of instruction. For instance, math scores, which are more dependent on instruction, were extensively lower than reading scores, as those are highly influenced by the students' home environment. ^{27, 28}

B.24. Possible Explanations

Many factors can be the reason behind low AYP reports regarding the students that are enrolled for Smart Schools. Major rationales are as follows;

- It is worth noting that commonly used school performance measures do not adequately apply to smart schools, since they have high levels of student mobility. Therefore, are these Smart Schools simply enrolling students who would be mobile in any case, or are the schools contributing to or causing the mobility?
- Another possible explanation for the weak performance is that there are insufficient funds allocated for these schools.
- Inadequate or misaligned curriculum can be another reason; however, more research needs to be assigned concerning this element.
- Improper or insufficient instruction come into play regarding the higher student-teacher ratio and the reduced spending on teacher salaries.
- Finally, full-time Smart Schools may provide an effective learning environment for some students but not others. So, Smart schools are not a one-size fit all. There needs to be some sort of consideration towards the different needs for all kinds of students. ^{17, 18, & 28}

B.25. Future Recommendations

The acceptance of smart schools as a notion and for a fact is likely to lead to changes in conventional schooling. For some cases, the content or curricula in schools will be reduced or even altered due to perceptions that smart schools are more competent. Moreover, conventional

schools and their teachers may be pressured or even replaced by the competition bearing in mind the fact that long-term socialization of students in smart schools is unknown.

It is predicted that the widespread adoption of smart schools will lead to reduced funding for conventional schools, changes to the nature and range of available subjects, some reduction in conventional schools and their teachers, limited socialization, and a future society which is a little *less human* than today.¹⁷

Thus, we need to create a general framework which outlines main issues regarding many components when planning for a Smart School.

Technology: Do we have the proper technology infrastructure, i.e. software, hardware, and connectivity to support the Smart School project? How would we define the best practice regarding Learning Management Systems? Are the students equipped with the necessary skills and resources to adapt with the new trend?

Curriculum and Instruction: Can a smart school meet the requirements for the curricular needs whether locally or internationally? What are the most convenient styles of teaching and models to be used to achieve best results? What's the befitting student-teacher ratio?

Student services: Do we have sufficient and proper student support regarding e-Library and educational resources that go hand in hand with the set curriculum? Should there be new ways to provide comprehensive services to the students learning online?

Professional Development: What are the qualifications and skills needed by instructors and teachers to deliver the e-Content and how can we prepare them to respond to the students and curriculum needs?

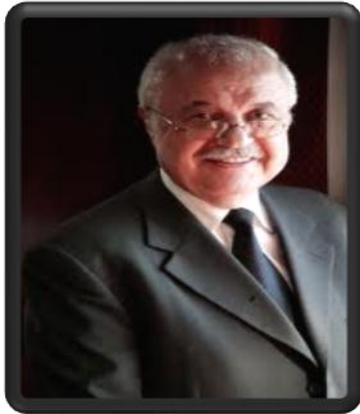
Access/Equity: Can we ensure equitable access to the students regardless of their personal situations? Are there certain guidelines and strategies that need to be regulated to match the random demands?

Policy and Administration: Can we make use of the internal and external policies that were used for the TAGIUNI project in particular to meet the constantly changing educational needs in an online format?

Marketing: What strategy or plan will we use to inform and convince the local and international audience of our innovative project?^{29, 30}

So, before moving on with the Smart School in the Cloud project, we need to strictly examine the performance accountability measures for Smart Schools, the financial oversight, and the funding formula. **New York Times**, of October 31, 1901¹⁸ once mentioned that there's always a clash between new technology and custom. In this case, "Smart schools have the potential to disturb the customary ways that schools go about their business of educating students."

C. TALAL ABU GHAZALEH ORGANIZATION



"Just Recently, educational systems have gained grounds in the advancement of technologies and development of societies and economies in the Arab world. With rapid market shifts towards globalization, many educational systems still cannot keep in pace with societal needs, technology trends, and increasing employment requirements. We have a mission to achieve, "enhancement of the educational environments of our young generation", through support and guidance of newly established higher educational institutions to enforce standards for excellence and develop dynamic, flexible, relevant and quality academic programs, while integrating educational outcomes with market needs and requirements"

H.E. Dr. Talal Abu-Ghazaleh,
Chairman,
Talal Abu-Ghazaleh Organization

C.1. ABOUT TALAL ABU-GHAZALEH ORGANIZATION (TAG-ORG)

Talal Abu-Ghazaleh Organization (TAG-Org) is an international organization, founded in 1972, employing over 2,000 multi-disciplined professionals. Operating out of 80 offices in the Middle East and North Africa, with representative offices in Europe and North America, we are the largest and leading group of professional firms in the Arab world. **TAG-Org**, through its member firms, offers the following services: audit, management consultancy, project management, IT training, training, domain name registration, quality assurance, intellectual property, legal services and translation.

Collectively, these firms form the largest pan-Arab professional group offering diversified yet interrelated services in accordance with the highest international standards.

With offices throughout the Arab world, **TAG-Org** is established to serve the Arab countries and foreign investors interested in conducting business in this region. **TAG-Org** operates out of offices established in every major city in the Arab world. This makes us the only one and regional firm of international, multilingual, highly trained professionals, providing diversified services worldwide.

Capitalizing on our diversified knowledge of the socio-economic and regulatory factors governing the Arab region, **TAG-Org** recognized the need to contribute and assist in building the capacities and enhancing the development of the Arab institutions in order to ensure the continuity and sustainability of developing and modernizing the Arab region.

TAG-Org achieves its needs through reliance on highly experienced specialists from different nationalities who predict economic and social trends based on their extensive knowledge of the region and evaluate alternatives to determine the most customized solutions for current and anticipated problems.

TAG-Org has acquired an outstanding record of success among its clients, which include competent agencies, international and pan-Arab governmental funding organizations, as well as leading entities in the areas of banking, industry, insurance and commerce.

C.2. TALAL ABU-GHAZALEH EDUCATIONAL CONSULTING (TAGEC)

As a member of TAG-Org, TAGEC operates through TAG offices to offer a wide range of educational and management services. Equipped with extensive and unrivalled business experience in the Arab World, and combined with an intimate knowledge of technology, social and business cultures, TAGEC is able to tailor its educational consulting services to meet needs

of existing and new establishments of educational institutions and their relevant societal environments.

Our Mission

To support educational institutions in their move towards achieving enhanced learner-centric educational environments for our young generation by enforcing standards for excellence, developing dynamic, flexible, relevant and quality academic programs, integrating educational outcomes with market needs and requirements, equipping students with the skills needed and enabling them to participate more effectively in the society and economy, and finally supporting adopting the principles of lifelong learning.

Our Vision

To advance the frontiers of knowledge of educational institutions to become learner-centric, while enhancing quality; inspiring innovation; responding to societal needs; and shaping caliber citizens capable of nurturing virtue and achieving prosperity.

Our Values

TAGEC is committed to the following values:

- Quality and compliance to educational standards
- Excellence in execution and high quality of service delivery
- Innovative products and services
- Technology advancement and contemporary knowledge
- Recruiting and developing talents for the long-term

C.3. BUSINESS PHILOSOPHY

OUR PEOPLE

TAG-Org is proud of the mixed nationalities and diversified backgrounds that characterize our staff, which have long experience in university management, teaching and learning systems, and institutional setups. With a policy of supplying local as well as international expertise, TAG-ORG aims to acquire success and respect among its clients, which include international and pan-Arab government funded organizations as well as leading national and international educational institutions.

CONSISTENT POLICIES

TAG- Org implements a general framework of policies concerning professional practices, staff management, and the execution of audit programs throughout its offices. Our policies still allow

individual contributions to positively influence our progress and development. We have a dedicated quality control department that requires each office to regularly undergo a peer review, carried out by other Talal Abu-Ghazaleh Organization offices, to confirm that the method and quality of work is consistent with that of our network worldwide.

PROFESSIONAL RESPONSIBILITY

We believe it is our obligation to establish and abide by the most ethical professional principles. All TAG- Org activities are rooted in integrity and carried out with diligence. We strive to afford the profession at large an example to follow and adopt; our principles are never compromised.

PARTNERSHIP RESPONSIBILITY

The partners and executive directors, all of whom contribute to the company's development and performance, first assume the responsibility of our professional practice. We maximize our efforts to expand the partnership by embracing individuals from within the firm who demonstrate the willingness and ability to assume the greater responsibilities of the partnership.

EVALUATION AND PROMOTION

We continuously challenge our staff with our expectations regarding responsibilities and client assignments. Our staff is regularly evaluated to ensure that we deliver exceptional service to our clients. We promote individuals who meet our challenging expectations, irrespective of nationality, religion, age or sex.

PROFESSIONAL INTEGRITY

At the Talal Abu-Ghazaleh Organization, we abide by the principles of absolute integrity and treat all information with high confidentiality. We insist that each individual within the firm upholds our principles and we do not tolerate any action or behavior which would adversely affect our integrity or image.

INTERNATIONAL ASPIRATION

We believe it is our duty, at both the national and international levels, to provide service to the Arab world in accordance with the highest international standards. Although an Arab institution, we are recognized internationally and thereby can offer our region the same quality of services as provided by the best organizations in the world.

C.4. OUR SERVICES

1. TALAL ABU-GHAZALEH & CO. INTERNATIONAL (TAGI):

Audit and Assurance Services:

- External audit.
- Stress testing.
- Information Technology audits.
- Internal audit.
- Risk assessment.
- G20 compliance.
- Regulatory compliance and reporting.
- Sarbanes-Oxley compliance.
- Fraud Investigation.
- Financial accounting and book keeping.

Tax Services:

- Tax accounting services.
- International tax services.
- Indirect taxes.
- Transaction Tax.

These services can be viewed on www.tagi.com

2. TALAL ABU-GHAZALEH & CO. CONSULTING (TAG-CONSULTANTS)

Business and Investment Advisory Services:

- Feasibility Studies.
- Market Studies and Research.
- Business Plans.
- Strategic Plans.
- Social & Economic Studies and Research.

Organization & Restructuring:

- Services (Performance Improvement).
- Process Improvement and Enhancement.
- Restructuring.
- Business Process Reengineering.
- Administrative Systems.
- Procedures Manuals.
- Human Resources Systems.

Financial Consulting:

- Financial and Accounting Systems.
- Reviewing and Improving Accounting operations.

- Projection and Forecasts Systems.
- Costing Systems.
- Financial and Operational Due Diligence systems.
- Loss and Cost Reduction Systems.

Quality Management Systems:

- Integrated Management Systems; Quality, Health, Safety, and Environmental Management Systems (QHSEMS)
- Quality Management System (ISO 9001:2008)
- Environmental Management System (ISO 14001:2004)
- Occupational Health and Safety Management System (OHSAS 18001:2007)
- Total Quality Management (TQM)
- Six Sigma
- Information Security Management Systems (ISO 27001:2005)
- CE Marking
- EurepGap (Agricultural Products)
- Food and Safety Management Systems (ISO 22000:2005)
- Food Management System (HACCP) – Hazard Analysis and Critical Control Points
- Waste Minimization Studies

Excellence Awards:

- King Abdullah Excellence Award.
- Sheikh Khalifa Excellence Award.
- Abu Dhabi Excellence Award.
- Dubai Quality Award.
- All other similar Excellence Awards

Privatization and private public partnership (PPP) Services:

- Privatization Strategy.
- Evaluation and Analysis of Privatized Establishments.
- Development, planning, and Restructuring for Privatization Purposes.
- Implementing Privatization Procedures.

These services can be viewed on www.agcon.com

3. ABU-GHAZALEH INTELLECTUAL PROPERTY (AGIP):

- **Trademark, Patent, Copyright and Design Registrations.**
- **Trademark Watch.**
- **Maintenance of Intellectual Property Rights through Renewals and Annuities.**
- **Search for Published Trademarks.**
- **Search for Published Patents.**
- **Patent Drafting.**
- **Patent Validation System.**
- **Patent Infringement Follow-up.**
- **IP Portfolio Management.**
- **Publication of Cautionary and Patent Working Notices.**

- **Opposition and Cancellation Actions.**
- **Advisory Services on Intellectual Property Protection.**
- **AGIP.Net; through which clients will conduct all IP business' activities online.**
- **Domain name Registration.**
- **Patent Monitoring and Awareness Service.**
- **IP Valuation.**
- **Licensing and Franchising Agreements.**

These services can be viewed on www.agip.com

4. TALAL ABU-GHAZALEH LEGAL (TAG-LEGAL):

- **Administrative Law.**
- **Advertising and Marketing Regulations.**
- **Alternative Dispute Resolution.**
- **Arbitration.**
- **Banking.**
- **Bankruptcy, Insolvency & Business Restructuring.**
- **Commercial Law.**
- **Corporate Finance and legal services.**
- **Employment & Benefits legal proceedings.**
- **Mergers & Acquisitions& Joint Ventures.**
- **Real Estate Litigation & legal consultation.**
- **Insurance and Reinsurance.**
- **Intellectual Property Litigation & legal consultation.**
- **Investment Funds.**
- **Islamic finance.**
- **Tax.**
- **Telecommunications.**
- **Trade Customs & Secrets.**
- **Transport & Shipping Law.**

These services can be viewed on www.tag-legal.com

5. TALAL ABU-GHAZALEH INFORMATION TECHNOLOGY INTERNATIONAL (TAG-ITI):

- **IT and Security Audit**
- **ISO27001 Implementation and Audit**
- **Vendor Selection**
- **Project Management and Supervision**
- **ICT Strategic Planning**

- **Website and Portal Development**
- **Website Audit**
- **Business Continuity and Disaster Recovery Planning**
- **Document Management and Archiving**
- **ERP Implementation and Audit**

These services can be viewed on www.tagiti.com

6. TALAL ABU-GHAZALEH PROJECTS (TAG-ADVISORY):

- **Project Management**
- **Commercial Mediation Services**
- **Locating Strategic Partners for Projects**
- **Locating Investors and Potential Financial Funding**
- **Locating Capital to Invest in Ongoing and New Project and Business Ideas.**
- **Franchising, Licensing and Technology Transfer Facilitation.**
- **Locating Distributors and Agents.**

These services can be viewed on www.abughazalehprojects.com

7. TALAL ABU-GHAZALEH VALUATION (TAG-VALUATION):

1. Valuation Services

- 1.1 Business Valuation
 - 1.1.1 Securities Valuation
 - 1.1.2 Stock Valuation
 - 1.1.3 Tangible Asset Valuation
 - 1.1.4 Valuation of Intellectual Property and other Intangible Assets
- 1.2 Financial Valuation
 - 1.2.1 Purchase Price Allocation
 - 1.2.2 Goodwill Impairment Testing
- 1.3 Valuation Reviews and Fairness Opinions

2. Due Diligence Services

- 2.1 Financial Due Diligence
- 2.2 Market and Commercial Due Diligence
- 2.3 Legal Due Diligence
- 2.4 Tax Due Diligence

3. Financial Modeling Services

4. Branding Services

- 4.1 Brand Strategies
- 4.2 Brand Designs

These services can be viewed on www.tagvaluation.com

8. TALAL ABU-GHAZALEH TRANSLATION DISTRIBUTION AND PUBLISHING (TAG-TRANSLATORS):

- **Technical Translation and Website Arabization.**
- **Specialized Translation Fields.**
- **Legal Translation Fields.**
- **Business or Economic Translation Fields**

These services can be viewed on www.tagtranslate.com

9. TALAL ABU-GHAZALEH KNOWLEDGE SOCIETY (TAG-KNOWLEDGE):

- **Free Internet**
- **Training Courses**
- **Design Services & Stationary**
- **Recruitment Consultancy**
- **Book Gallery**
- **Languages Clubs**
- **Job Opportunities**
- **Social Services**
- **Cafeteria**

These services can be viewed on www.tagks.com

10. TALAL ABU-GHAZALEH RECRUITMENT AND HUMAN RESOURCES DEVELOPMENT (TAG-RECRUIT):

- **Recruitment services for clients.**

This service can be viewed on www.tagirecruitment.com

11. TALAL ABU-GHAZALEH DOMAINS (TAG-DOMAINS):

Domain Name Registration Services:

- 1. Generic Top-Level Domains (gTLDs):** Registration, Bulk Registration, Renewals, and Transfers
- 2. Country-Code Top Level Domains (ccTLDs):** Registration, Renewals, and Transfers.
- 3. Arabic Domain Names:**
 - Domain name registration in the Arabic language.
 - Translation and transliteration services for brands

These services can be viewed on www.tag-domains.com

12. ABU-GHAZALEH INTELLECTUAL PROPERTY RENEWALS (AGIP-RENEWALS):

- **Trademark Renewals.**
- **Patent Annuities Payment.**

These services can be viewed on www.agip.com

13. TALAL ABU-GHAZALEH REAL ESTATES MANAGEMENT AND DEVELOPMENT (TAG-AQARAT):

- **Real Estate Consultancy.**
- **Real Estate Management.**
- **Real Estate Development.**
- **Real Estate Marketing.**
- **Real Estate Training.**

These services can be viewed on www.tag-aqarat.com

14. TALAL ABU-GHAZALEH CAPITAL SERVICES (TAG-CAPITAL):

- **Initial Public Offering (IPO) & Security Offering.**
- **Debt Issuance.**
- **Asset Management.**
- **Corporate Finance.**
- **Due Diligence (Legal / Financial).**
- **Strategy.**
- **Risk Management.**

These services can be viewed on www.tag-capital.com

15. TAG- CHINA VISA OFFICE:

The Embassy of the People's Republic of China in the Hashemite Kingdom of Jordan has appointed Talal Abu-Ghazaleh Organization to be the only approved office by the Chinese Embassy to undertake all actions and administrative and technical matters related to applications for obtaining a visa for the People's Republic of China and the Hong Kong Special Administrative Region. Talal Abu-Ghazaleh Organization shall undertake, through the China Visas Section, receiving applications from persons wishing to obtain visas, collecting assigned fees, handing over the collected fees to the Embassy of China in Amman and conveying the response of the Embassy with regard to the visa applications whether to accept or reject granting a visa to the applicants through the Visas Section. Thus, Talal Abu-Ghazaleh Organization shall be the only point of contact between the Embassy and the applicants regarding visas.

These services can be viewed on www.tag-visa.com

16. TAG-BOOK:

The Talal Abu-Ghazaleh Organization (TAG-Org) launched on August 23, 2007 the “Laptop for Every Arab Citizen” initiative through its member company TAG-BOOK during the Annual China Top Executives and Fortune 500 Enterprises Summit at the United Nations headquarters in New York. TAG-Book low cost computer initiative targets the basic Arab user whether at home, school, university, urban or rural regions, and aims at reducing computer illiteracy and bridging the digital divide between the Arab countries and the developed world. The value of this project is that it does not resemble traditional computer projects, which are present in a number of Arab countries. The difference is that this project specifically addresses the needs of Arab communities, and merges four main components: hardware, software, connectivity and training.

These services can be viewed on www.tagibook.com

C.5. OUR PROFESSIONAL SOCIETIES

1. ARAB SOCIETY OF CERTIFIED ACCOUNTANTS (ASCA):

- **Arab Certified Professional Accountant (ACPA).**
- **Professional Publications.**
- **Specialized Training Courses.**
- **Membership.**

These services can be viewed on www.ascasociety.org

2. LICENSING EXECUTIVES SOCIETY -ARAB COUNTRIES (LES-AC):

- **Agencies and franchise consulting.**

- **The Arab Certified IP Licensing Practitioner (ACIPLP) Program.**
- **Professional training.**
- **Networking opportunities.**
- **Publications.**

These services can be viewed on www.lesarab.org

3. THE ARAB ORGANIZATION FOR QUALITY ASSURANCE IN EDUCATION (AROQA):

- **Accreditation Services including Program and Institutional Accreditation.**
- **Quality Assurance Audits and Reviews.**
- **Development of Quality Assurance Systems.**
- **Enhancing Faculty Effectiveness through Professional Development.**
- **Educational Program Development and Review.**
- **Capacity Building in the Field of Quality Assurance and Education.**

These services can be viewed on www.aroqa.org

4. ARAB CENTER FOR MEDIATION & ARBITRATION (AIPMAS):

The Arab Intellectual Property, Mediation, and Arbitration Society (AIPMAS) was established under the name of the “Arab Society for the Protection of Industrial Property” in 1987. The Society aims at promoting and reinforcing the system of Intellectual Property in Jordan, and enhancing competence and knowledge of the personnel working in this field, in addition to the activities of the Center of Mediation and Arbitration, belonging to the Society, which resolves conflicts of Intellectual Property through international arbitrators applying international rules. AIPMAS, affiliated with ASIP, organizes various events in the IP field, such as the annual Moot court competition with the University of Jordan, in addition to its regular courses, seminars and other activities.

These services can be viewed on www.aipmas.org

5. ARAB SOCIETY FOR INTELLECTUAL PROPERTY (ASIP):

The Society was established in 1987 in Munich, Germany under the name “Arab Society for the Protection of Industrial Property.”, The Society’s main objective is to enhance and develop the protection of the Intellectual Property (IP) system through various means of awareness and education that explain the nature of work in this field and its effective role in the economy. It also aims at upgrading and unifying the Arab legislations in the field of Intellectual Property. ASIP holds many specialized courses and programs in the fields of intellectual property and the

legal fields, the most important is the Arab Certified Intellectual Property Practitioner program (ACIPP) which is the first specialized Arabic program which provides academic and professional training in the different fields of intellectual property through its courses (Introduction to Intellectual Property, Trademark and Unfair Competition, Patents of Invention and Trade Secrets, Copyright and Related Rights). ASIP also prepares many specialized courses according to the needs of different organizations in order to fulfill their training needs.

These services can be viewed on www.aspip.org

6. ARAB KNOWLEDGE AND MANAGEMENT SOCIETY (AKMS):

Arab Knowledge and Management Society (AKMS) is a nonprofit organization founded on August 29, 1989, in Buffalo, New York, United States of America and is officially registered in Amman on October 10, 1990. The main objective of AKMS is to develop Arab organizations in both public and private sectors and provide high-quality training and education that meet the needs of different stakeholders in the various fields related to quality, management, training and marketing. AKMS is a member of many professional institutes, such as the Chartered Quality Institute (CQI), ISO Technical Committee 176 and the Arab Information Club (ARABCIN). AKMS currently offers various professional courses including the Arab Certified Quality Manager program (ACQM), advanced and customized training programs, ISTO Examinations, in addition to several valuable publications. With more than 18 representatives in the Arab world, along with many reputed international associates, AKMS excels in delivering competitive services.

These services can be viewed on www.akms.org

C.6. OUR ACADEMIES

1. TALAL ABU-GHAZALEH COLLEGE OF BUSINESS (TAG-COLLEGE):

1. MBA program with concentrations in:

- Marketing
- Human Resources
- Management
- International Accounting
- Banking and Finance
- Quality Management

2. MA Program in Intellectual Property

These services can be viewed on www.tagcb.edu.jo

2. TALAL ABU-GHAZALEH EDUCATIONAL CONSULTING (TAG-EDUCATION):

- **Strengthening the Institutional Capacity of Ministries of Education**
- **Designing and Building Educational Management Systems**
- **Enhancing English Language Learning Projects in the Arab Region**
- **Offering School Management Consulting Services**
- **Boosting Teacher Training and Professional Development**
- **Providing Accreditation**
- **Using Information and Communication Technology**
- **Developing & Distributing Curriculum & Education Materials**

These services can be viewed on www.tageducational.com

3. TALAL ABU –GHAZALEH UNIVERSITY MANAGEMENT ADVISORY SERVICES (TAG-UNIVERSITIES):

Talal Abu-Ghazaleh University Management Advisory Services (TAG-Universities) plays a major role in providing consultancy services to higher education institutions. Its operation consists of three consecutive phases; inception, design and strategic management and implementation. (TAG-Universities) develops strategies and policies in higher education. It also advises on the institutions' policies, regulations and standards and disseminates best practices in resources, services, information and data usage.

These services can be viewed on www.taguniconsult.com

4. TALAL ABU-GHAZALEH ACADEMIES (TAG-ACADEMIES) SERVICES:

The Talal Abu-Ghazaleh Academies (TAG-Academies) is a group of professional academies specialized in offering training programs, projects and consultation. TAG-Academies provide its services through thirty-two offices in the Arab world in the following fields;

- **Professional Training**
- **Banking and Finance**
- **Information Technology**
- **Information and Communication Technology**
- **Human Resources Management**
- **English Language**
- **Chinese Language**
- **Education Institutes Development**
- **Training of Trainers, Teachers and Managers**

- **Training Consultancies**
- **Project Management**
- **Media**
- **Qualifying Translators**
- **Islamic Finance**

These services can be viewed on www.tag-academies.com

5. TALAL ABU-GHAZALEH RESEARCH CENTER (TAG- RESEARCH):

The Talal Abu-Ghazaleh Research Center is an independent research institute affiliated with the Talal Abu-Ghazaleh College of Business and located in Amman, Jordan. It was founded in November 2007 by Mr. Talal Abu-Ghazaleh. TAG-CRC provides the business community, professionals and academics with business-related and case-study research covering a wide range of research and customized consultations in various fields of business administration. The major focus of TAG-CRC is on areas of management, marketing, finance, banking, risk management, corporate governance, accounting, new product development and innovation and other related business fields in social sciences in the private sector, public sector, and not for-profit organizations.

These services can be viewed on www.tagcb.edu.jo

C.7. TAG-ORG SUCCESS STORIES IN EDUCATIONAL PROJECTS

(A Record of Accomplishment -A Unique Concept of Private-Public Partnerships)

C.7.1. TALAL ABU-GHAZALEH SCHOOL OF BUSINESS, GERMAN JORDANIAN UNIVERSITY, AMMAN, JORDAN (WWW.TAGSB.EDU.JO)

Talal Abu-Ghazaleh Graduate School of Business (TAGSB) is the first school of its kind in the Arab world that represents a partnership between the private and public sectors. It was founded to provide educational opportunities at the highest international standards. Our commitment to our students, to academic excellence and to the development of the region is reflected in the School's mission.

TAGSB was inaugurated in 2006 as one of the faculties of the German-Jordanian University (GJU), a public university formed in 2004 through the cooperation of the German and Jordanian governments. This unique partnership brings the business expertise of the Talal Abu-Ghazaleh Organization (TAG-Org) to the academic world of GJU.

Excellence is not easily achieved. TAGSB is fortunate to have the financial support and resources of TAG-Org, the largest firm of professional services in the Arab world with over 70 offices and 200 offices

worldwide. TAG-Org, in the words of its Chairman Dr. Talal Abu-Ghazaleh, is committed to making TAGSB “the Harvard of the Arab world.”

TAGSB’s aim is to prepare students for leadership positions in certain specialized fields. We are dedicated to continuously developing new programs that help our graduates meet the demands of the ever-changing global economy.

Mission

We educate the future business leaders who will drive the economic future of the Arab region by implementing a disciplined combination of our core values and educational strategies, and by bringing together outstanding academicians and gifted students. We are committed to excellence, high ethical and moral values, academic and applied business research, and continuous improvement to benefit from advancements in international educational standards and digital technology. We strive to remain a premier business school regionally and worldwide.

Vision

TAGSB seeks to become a national and international model of excellence in the field of business administration for gifted people, including outstanding academicians and students, professional trainers, brilliant consultants and those who advance and transfer knowledge to improve our societies' economic prosperity and quality of life. TAGSB’s motto of “Where the Gifted Become Leaders” focuses on bringing excellence, creativity and innovation to graduate leaders and equip them with the latest skills.

About TAGSB

The program and courses at TAGSB have been developed by some of the most respected and renowned figures in academia with the global economy in mind to meet the highest international standards. Our MBA program has been designed to bolster the advancement of knowledge with practical real-world applications and through a case study approach to education. This places TAGSB in a league of its own. The MBA program is accredited by the Foundation for International Business Administration Accreditation (FIBAA). The accreditation procedure has verified and confirmed that the program has all the quality elements specified in the European MBA Guidelines. The MBA program at TAGSB is the first in the Arab world to achieve this prestigious accreditation despite being introduced only a couple of years ago.

Some of the noteworthy features of TAGSB are:

- Accreditation by the Foundation for International Business Administration (FIBAA).
- Recipient of the “Best Educational Institution in Management in Asia” Award from the World Education Congress, Asia, 2011.

- Recognition by Forbes Magazine as one of the top 10 business schools offering MBA programs in the Arab region.
- Employment of all TAGSB graduates in prestigious management positions in Jordan and abroad.

The **Principles for Responsible Management Education** (PRME) is a global initiative that provides a voluntary engagement platform for business schools and management-related academic institutions in order to develop a new generation of business leaders capable of leading their organizations towards sustainability amid the serious economic, environmental and social challenges. As the only academic institution in Jordan who has membership at the PRME initiative, TAGSB is committed to:

- Enhancing TAGSB's image and reputation.
- Creating awareness and familiarity with the principles of responsible management and their relevant themes among faculty members and students.
- Converting the MBA curriculum to reflect the spirit and ethos of the PRME.
- Orienting faculty members and students to consider the PRME's themes in their relevant research projects and reports.

C.7.2. TALAL ABU-GHAZALEH UNIVERSITY COLLEGE OF BUSINESS, BAHRAIN (WWW.TAGUCB.COM)

Talal Abu-Ghazaleh University College of Business (TAGUCB) is a world-class business university which aims to develop a cadre of business leaders who can compete and succeed in the knowledge-based global economy.

We show how continually shifting knowledge, contexts and strategies can affect innovation, and ensure students are able to adapt information and apply the results worldwide. Now facing fierce competition, firms are required to succeed in a culturally sensitive marketplace where resourcefulness is a prized asset.

Mission

Our mission is to promote educational excellence by providing students with high-quality education within a supportive and stimulating learning environment. The main objective of our missions is to excel our efforts and resources in supporting students to be the future business leaders.

Vision

We aspire to be a top recognized Business School in Bahrain and the Gulf region for its Academic Excellence, Community Outreach Services, and Research and Development Contributions.

About TAGUCB

A truly international University College of Business, TAGUCB develops business professionals for whom geography, culture and communication are interwoven.

The major business administration programs of international accounting, management and logistics at TAGUCB have been developed by some of the most respected and renowned figures in academia. Their experience and familiarity with global standards ensures that the courses combine the advancement of knowledge with practice.

A number of International guidelines were consulted before finalizing the program design. This ensures that the learning outcomes of TAGUCB programs are in line with international benchmarks enabling students to acquire the necessary international knowledge and expected skills.

In addition, input into the design of the programs was provided by experts with wide experience in undergraduate studies in management and accounting. Moreover, the University's overall strategy was formulated to focus on the international elements in the teaching process and research activities, as outlined below:

- English language is the formal teaching language in all taught courses of the programs.
- Text books and other references are selected from international publishing agencies to be taught to our students. International case studies and ethical dilemmas are also presented and discussed during formal classes to strengthen the students' capability to deal with international business issues.
- The University is always determined to engage in international educational activities through the signing of collaborative agreements with reputable academic business schools. This facilitates mutual recognition, and introduces international features into the programs through the cooperative sharing of expertise, professors and students.
- TAGUCB shall encourage professors to participate in international conferences, where financial support is provided to facilitate research relating to business topics. University professors are interested in conducting applied research where many papers have been published in both national and international journals. In addition, research papers are to be communicated and discussed with students to enhance their creative thinking on current business issues.
- Given the special care taken by identifying and implementing strategic tools in order to make international standards a key pillar of the programs, the opportunities for assuming management roles in recognized international and regional firms are increased.

C.7.3. TALAL ABU-GHAZALEH UNIVERSITY (TAGIUNI), LEBANON (WWW.TAGIUNI.COM) [REGIONAL HEADQUARTER IN JORDAN]

TAGIUNI is a digital university which offers academic degrees, language and professional certificates, continuous and innovative education, and vocational programs worldwide.

Mission

Our mission is to make accredited education accessible to everyone, everywhere.

Talal Abu-Ghazaleh University is an endeavor to democratize education, promote global citizenship, and empower citizens who have been disenfranchised by the technological revolution. Digital education stemming from international institutions compels individuals to understand the interdependent and interconnected nature of the modern world. It allows for world-class higher education to reach across cultures and physical barriers.

Vision

TAGIUNI believes that access to a world-class education is a human right "A world in which world-class education is a human right." TAGIUNI delivers traditional university degrees at a fraction of the tuition fees, as part of our strategic alliances with accredited academic institutions. The Vocational Academy prepares students for the workforce in traditional and developing fields; and the Language Academy makes communicating with people around the world a seamless experience.

Core Values

Karama/Dignity: The Arabic word for dignity was inspirational in the founding of the University. Talal Abu-Ghazaleh University firmly believes that education empowers individuals and strengthens their dignity and human rights. With this in view, all of the programs offered by the University focus on self-improvement and recognition of achievement.

Integrity: Talal Abu-Ghazaleh University partners with institutions that provide the best educational programs. Maintaining high standards and quality is the University's promise to its students.

Opportunity: Talal Abu-Ghazaleh University delivers academic programs of its partner institutions at a fraction of their original tuition fees from its partner institutions. The University targets students who seek personal development while increasing their skills for employability in the market.

Global Connectivity: Talal Abu-Ghazaleh University seeks to develop a global network of alumni. Students are equipped with an Education Passport that documents their achievements. The Education Passport can be used to connect TAGIUNI students that are looking for employment or partners around the world.

Economic Development: Talal Abu-Ghazaleh University supports regional and global economic development by educating individuals in emerging technological fields. The University will provide

learners with the opportunity to develop their leadership traits through communication in the global knowledge-based economy.

About TAGIUNI

TAGIUNI is based on the vision that the democratization of knowledge is a key to economic growth, social development, cultural enrichment, and political empowerment. TAGIUNI embodies the belief that creation, acquisition, preservation, transmission, and application of knowledge are the foundation of societal transformation. TAGIUNI targets the ambitions of the United Nations Education Millennium Development Goals by investing in its students through introducing technical improvements and a streamlined educational system. In addition, it will increase employment opportunities by offering academic degrees, professional and language certificates, and vocational trainings that increase students' productivity and their ability to adapt to new technologies and apply their experiences. TAGIUNI can be briefed as the following;

- ✓ Talal Abu-Ghazaleh University is the gateway to world-class education.
- ✓ TAGIUNI aims to operate out of its own regional Headquarter in Amman, Jordan and 80 TAG-Org offices established in every major city in the Arab world and globally to promote the programs of its University partners and e-learning partners. This makes us the only regional firm of international, multilingual, highly trained professionals, providing diversified services worldwide.
- ✓ This unique concept of Online and Blended education increases the education delivery capacities of our University partners and at the same time enhances the education standards of the Arab world and others in order to ensure the exploitation of the capabilities of ICT developments in the education sector. This further brings in the continuity and sustainability of developing and modernizing the Arab region.
- ✓ TAGIUNI achieves its needs through reliance on highly reputable Universities whose brand is unquestionable. Also, those universities have students from all across the globe and are already delivering On-Campus Programs and have expanded into online delivery model and Blended models. In addition to that, the universities can customize the programs for the corporate houses depending on special requirements and regional problems, whenever needed.
- ✓ TAGIUNI has acquired an outstanding record of building various partnership models which include Universities, Business schools, Network of Universities, e-learning partners, competent consultants, international and pan-Arab governmental funding organizations, as well as leading entities in the areas of education.

C.8. TAGIUNI PARTNERS:

- Canisius College, USA (www.canisius.edu)
- Thunderbird School of Global Management, USA (www.thunderbird.edu)

- Laureate Online Education (www.laureate.net)
 --The University of Liverpool, UK (www.liv.ac.uk)
 --Walden University, USA (www.waldenu.edu)
- Talal Abu-Ghazaleh Graduate School of Business (www.tagsb.edu.jo)
- Talal Abu-Ghazaleh University college of Business, Bahrain (www.tagucb.com)
- The British Council (<http://www.britishcouncil.org/exams/aptis>)
- Marconi University , Italy (<http://www.marconiuniversity.org/>)
- Pearson - Edexcel(<http://www.edexcel.com>)
- ITAD Group, Australia (www.itadgroup.com)
- Genashtim Innovative Learning, Singapore (<http://genashtim.com>)
- Inlingua Cheltenham, UK (<http://www.inlingua-cheltenham.co.uk/>)
- Talal Abu-Ghazaleh Knowledge Society(www.tagks.com)
- Arab Knowledge and Management Society (www.akms.org)
- The Arab Society of Certified Accountants(<http://www.ascasociety.org>)
- Arab Society for Intellectual Property(<http://www.aspip.org/>)
- The Licensing Executives Society - Arab Countries(<http://www.lesarab.org/>)

Talal Abu-Ghazaleh University (**TAGIUNI**) was set to launch its services in January 2013 and in its pre-launch period has dedicated itself to lay good foundation to offer world class education online to its local and international students, Schools, Universities, Corporate Houses with top notch complimentary services. With the mission to make accredited education accessible to everyone, everywhere , TAGIUNI globally and in cooperation with the above listed partners; but not limited to those, aims in principle at providing courses and programs in the following professional and academic formats,

1. Doctoral Degree	2.Master Degrees
3. Bachelor Degrees	4. Diploma
5. Professional Certificates	6. Executive Education

In the following disciplines which can be added to,

1. Business / Management/ International Business	2. Law
3. Health	4. Hospitality / Nursing

5. Psychology	6. Arts (Music / Design, etc...)
7. Foreign Languages (Chinese / Italian/ English)	8. ICT /Technology / Science

C.9. ACADEMIC PARTNER PROFILES

[Offering Academic / Degree Programs]

1. Canisius College (www.canisius.edu)

Founded in 1870, Canisius College is one of 28 Jesuit colleges and universities in the nation and the premier private university in Western New York. Canisius is consistently ranked by U.S. News & World Report as one of the best comprehensive universities in the North region. Canisius College is located between the historic Hamlin Park neighborhood and Delaware Park in the city of Buffalo, N.Y.



Its online Programs are accredited by AACSB. Canisius offers quality academic programs taught by faculty who are leaders in their fields. More than 125 majors, minors and special programs through the College of Arts & Sciences, the Richard J. Wehle School of Business, and the School of Education and Human Services provide many exciting options for career preparation or higher-level educational pursuits. Classes are offered in state-of-the-art campus facilities and in out-of-class settings through exciting field study and internship opportunities.

2. Thunderbird School of Global Management (www.thunderbird.edu)



Founded in 1946, Thunderbird School of Global Management is the first and oldest graduate management school focused exclusively on global business. **Thunderbird is the world's No. 1-ranked school of international business** with more than 65 years of experience in developing leaders with the global mindset, business skills and social responsibility necessary to create real, sustainable value for their organizations, communities and the world. Thunderbird produces global managers who are distinguished by a global mindset that allows them to work successfully with individuals from diverse cultures and to manage effectively in different social, economic, and political environments. Thunderbird is sought out by individuals and companies worldwide. Thunderbird was also the first business school to adopt an official Professional Oath of Honor. Its Programs are accredited by **AACSB**.

3. Laureate Online Education (www.laureate.net)



Laureate International Universities (LIU), a leading international network of quality, innovative institutions of higher education. The LIU network of more than 60 accredited campus-based and online universities offers undergraduate and graduate degree programs to more than 740,000 students around the world. Their students are part of an international, academic community that spans 29 countries throughout North America, Latin America, Europe, and Asia. Laureate Online Education is partnering with TAGIUNI for their flagship University programs namely:

a. Walden University (www.waldenu.edu)



The flagship online university in the Laureate International Universities network, Walden University has supported adult learners through degrees that promote positive social change since 1970. **No. 1 in education and public health and No. 2 in nursing** for enrollment in online graduate programs in the United States education and public health and No. 2 in nursing for enrollment in online graduate programs. Today, Walden has students and alumni in more than 140 countries. Walden's College of Education is named for Richard W. Riley, the former Secretary of the U.S. Department of Education. Its Programs are accredited by the Higher Learning Commission and a member of the North Central Association; Accreditation Council for Business Schools and Programs; Council for Accreditation of Counseling and Related Educational Programs; Commission on Collegiate Nursing Education; The Richard W. Riley College of Education and Leadership is a candidate for accreditation by the National Council for Accreditation of Teacher Education.



b. University of Liverpool (www.liv.ac.uk)

Liverpool was the first UK University to deliver an entire degree via e-learning. The University of Liverpool and Laureate Education, Inc. have a long-standing and wide-ranging strategic partnership. Laureate Online Education Group, B.V., is the exclusive worldwide online-learning partner of the University of Liverpool, one of the United Kingdom's top research-led universities. Online operations are supported from Liverpool, United Kingdom; Amsterdam, the Netherlands; and Baltimore, Maryland, United States. As a member of the Russell Group of leading research universities—the "**Ivy League**" of **UK higher education**—the University of Liverpool is at the forefront of academic programs. Founded in 1881, the University of Liverpool was one of the first civic universities. It is the original redbrick university; the term "redbrick" comes from the distinctive appearance of its Victoria Building, which was built in 1892. Eight Nobel Laureates are associated with the University of Liverpool. In 2004, the University of Liverpool started its partnership with Laureate and is the largest provider of 100% online postgraduate degrees in Europe. Its online programs are **accredited by AACSB**.

4. Bowling Green State University (www.bgsu.edu)

Bowling Green was established in 1910 as a teacher-training institution. Bowling Green held its first classes in 1914. The first bachelor's degrees were awarded in 1917. The University is accredited by the Higher Learning Commission and a member of the North Central Association, Chicago, IL. Other accreditation includes AACSB International, National Council for Accreditation of Teacher Education, Commission on Accreditation for Health Informatics and Information Management Education, American Psychological Association, American Council for Construction Education, Home to the world's only **doctoral program in photochemical sciences**.



5. Amity University Online (www.amity.edu)

Amity is the leading education group of India with over 100,000 students studying across 1000 acres of hi-tech campus. Amity University has been ranked the no. 1 private university in India and is fully Government Recognized by University Grants Commission (UGC), India. Amity University is included in the list of Universities maintained by the International Association of Universities (IAU). It is accredited by ASIC, UK (Accreditation Service for International Colleges) with rare distinction as “Premier College”. Distance Education Programs accredited by Distance Education Council. Educational Programs accredited by National Council of Teachers Education. It is a Member of the Association of Indian Universities (AIU) and the Association of Commonwealth Universities. It is also accredited by NAAC with ‘A’ Grade:



C.10. TAG-ORG OFFICES AROUND THE WORLD

1. AFGHANISTAN - Kabul
2. ALGERIA - Algeria
3. ARGENTINA - Buenos Aires
4. BAHRAIN - Al-Manama (Liaison offices for Africa, Asia, Europe, North & Latin America, & Iran)
5. BRAZIL - Brasilia
6. *CANADA - Montreal
7. CHILE - Santiago
8. CHINA - Shanghai
- Beijing
- Hong Kong
- Shanghai

9. COLOMBIA - Bogota
10. CYPRUS - Nicosia
11. EGYPT - Cairo
12. *FRANCE - Paris
13. GERMANY - Dusseldorf
14. HUNGARY - Budapest
15. INDIA - New Delhi
16. IRAN - Tehran
17. IRAQ - Baghdad
- Erbil
18. JORDAN - Amman, General Administration Office (headquarters)
- Amman, Abu-Ghazaleh Intellectual Property (AGIP)
- Amman, Talal Abu-Ghazaleh Knowledge Society (TAGKS)
- Amman, Talal Abu-Ghazaleh Graduate School of Business (TAGSB)
- Amman, Talal Abu-Ghazaleh University (TAGIUNI)
- Amman-Libya
19. KUWAIT - Kuwait
20. LEBANON - Beirut
21. MALTA - San Gwann
22. MEXICO - Mexico City
23. MOROCCO - Casablanca
24. NIGERIA - Lagos
25. OMAN - Muscat
26. PAKISTAN - Karachi
27. PALESTINE - Gaza
- Ramallah
28. QATAR - Doha

- 29. RUSSIA - Moscow
- 30. SAUDI ARABIA -Al-Riyadh
 - Al-Khobar
 - Jeddah
 - Abha
- 31. SUDAN - Khartoum
- 32. SWITZERLAND - Geneva
- 33. SYRIA - Damascus
- 34. TUNISIA - Tunis

- 35. TURKEY - Ankara
 - Istanbul
- 36. UNITED ARAB EMIRATES
 - Abu-Dhabi
 - Dubai
 - Ras Al-Khaimah
 - Al-Ain
 - Jabal Ali
 - Um Al-Quwain
 - Al-Sharjah
 - Al-Hamriyah
 - Ajman
- 37. *UNITED KINGDOM - Edinburgh
- 38. *UNITED STATES
 - New York
 - Buffalo

- 39. YEMEN - Sana'a

*Corresponding Offices

D. TAG CLOUD

WHAT IS COMPUTING?

It is using computer technology in order to complete various tasks including designing and building hardware and software systems for multiple purposes.

WHAT IS CLOUD COMPUTING?

A type of computing that relies on sharing different computerized resources and services, such as servers, storage and applications, and delivering them via Internet to the user's computers and other devices.

WHY CLOUD COMPUTING?

Cloud computing, the latest concept for advancing the IT sector, helps us use the computer resources more efficiently. It is also important to realize that this new approach dramatically changes our perception of hardware and software requirements.

D.1. ABOUT TAG CLOUD

Keeping abreast of the rapid development in ICT and its impact on business, service and other sectors, TAG-Org launched the Cloud Computing Consultation Service. The new service will help introduce all computing technologies to all businesses and service sectors in the Arab world. TAG-Org is proud to be the first corporation to create its own e-cloud in the region.

Mission

Introduce the cloud as an asset for our clients companies, offer customized solutions to them, and incorporate such technology in their plans.

We strive to make computing cloud integrated with and complementary to your work. Our business grows with yours. We work closely with you, hand in hand, to achieve that aspired growth.

D.2. VALUES ADDED

COST REDUCTION

Cloud computing can easily help users save on overhead charges such as the cost of data storage, software updates, management, and, most importantly, cost of quality control.

HIGH SPEED AND SCALABILITY

Depending on your requirements, you can easily scale up or down the services in order to avoid plugging in new hardware or installing new application software where it is not really needed.

FLEXIBILITY OF USAGE

Using and accessing Cloud computing services can be done from any device, whether it is a computer or a mobile phone such as iPhone.

INNOVATION IN TECHNOLOGY

Cloud computing manages or owns the resources on behalf of you, in addition to providing you with the complete benefits.

SELECTION OF LOCATION

You can minimize your overhead expenses and select the location for infrastructure freely depending on your requirements.

D.3. CLOUD COMPUTING SERVICE MODELS

INFRASTRUCTURE AS A SERVICE (IAAS)

IAAS model is used to provide pre-provisioned virtual resources, which can be a server, a database or an application, for IAAS is considered the most basic cloud service model. In this model, providers offer computers – either virtual or physical machines - in addition to other resources. This also allows leveraging existing assets to provide resources with high availability, strong security and excellent reliability.

PLATFORM AS A SERVICE (PAAS)

In this model, cloud providers deliver a computing platform which includes an operating system, a programming language execution environment, a database, and a web server. This permits the developing of applications on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers.

SOFTWARE AS A SERVICE (SAAS)

In the SAAS model, cloud providers install and operate application software in the cloud, and users access the software from cloud clients. Furthermore, cloud users do not manage the cloud infrastructure and platform on which the application is running. This eliminates the need for installing and running the application on the cloud user's own computers simplifying maintenance and support.

D.4. DEPLOYMENT MODELS

PUBLIC CLOUD

Vendors dynamically allocate resources (hard drive space, RAM, and processor's power) on a per-user basis through web applications. This model has more advantages for Small and Medium scale industries.

PRIVATE CLOUD

Under this model, a dedicated private cloud is operated for an individual organization. The cloud is deployed within a corporate firewall and runs on the same infrastructure that the corporation uses in the rest of its computing procedures.

COMMUNITY CLOUD

Community cloud shares infrastructure among several organizations, whether managed internally or by a third-party, in addition to being hosted internally or externally.

HYBRID CLOUD

This model offers the advantages of multiple deployment models as a composition of two or more of the other types of clouds.

D.5. SERVICES

CONSULTING SERVICES

We are here to serve your company at all levels. We are keen to enable your company to further your core values, and achieve the best performance levels which require an optimal combination of talented and capable human resources and strategic, process and technical resources.

We believe that offering the best solutions depends on profound understanding of your business needs, and we work closely with your organization to implement the best solutions.

Not only does TAG Cloud Consulting Services advise you, but also TAG Cloud implements the necessary changes to improve the effectiveness of our integrated and end-to-end cloud solutions and services to meet your requirements and bring continuity and consistency to your business strategy.

E. TAGITOP

TAGITOP Initiative

The TAGITOP initiative aims at introducing an affordable top-of-the-line laptop to every Arab citizen- in an effort to increase the level of computer literacy in the Arab region, bridge the digital gap, and build sufficient ICT skills and capacity to boost the economic standing of the region and steer it towards a knowledge-based and innovation driven society.

E.1. STATUS

- TAGITOP is a not-for-profit initiative though it is implemented as a self-sustaining business.
 - TAGITOP has potential partners like: Intel, Microsoft, FOXCONN ODM (original design manufacturing), and educational software companies.
 - TAGITOP is a mid-range laptop dedicated for professional, education, and basic use. Its platform is independent with customized software applications and content
- Mandate:
- The empowerment of citizens with affordable top of the line laptop for professional/ educational/ and basic use,
 - The advancement pertaining to the development and spread benefits of ICT, and
 - The support of information and knowledge resources for increased ICT literacy.

E.2. SCOPE

- *Accessibility*: facilitate easy and quick access to rich information resources including ICT systems and services, computing resources, online learning materials, e-Learning, etc...
- *Empowerment*: empower societies and communities with ICT technologies and resources for more access to knowledge.
- *E-Learning*: encourage the use of e-Learning and adoption of its tools and technologies to facilitate widening access to learning and improving educational achievements.
- *Enabling connectivity*: facilitate efficient ICT connectivity for remote access to information resources.
- *Lifelong learning*: develop a framework for web-enabled lifelong learning through continuous education and training
- *Research and development*: promote an innovative culture and encourage applied research and development interaction among communities

- *Sharing and dissemination*: share and disseminate accumulated knowledge and information resources for skilled ICT workforce
- *Sustainability*: maintain a constant pace of production and development to sustain the delivery of laptop computing and the ability to reproduce knowledge through a continuous effort to build up the ICT skills of communities and societies.

E.3. GOALS

- Increased use of ICT technology and knowledge for increased computer literacy and enhanced benefits of ICT use for society.
- Improved ICT knowledge and technology to increase access to ICT resources and services.
- Raised awareness of ICT, resources, services and their successful use in education among all sectors of societies.
- Established communities of practice of organizations and individuals focused on development of ICT skills and resources.
- Extended training and support programs through social initiatives for long-term capacity building and skill development goals.

CONCLUSION

First and foremost, we need to realize that our students are no longer the students of yesterday. They are the students of today and tomorrow. Therefore, it is very unreasonable to use the traditional outdated learning methods which speak a totally different language from the language that is being spoken by the current generation. It is just like a tutor trying to teach law in German to someone who speaks Arabic only. If we continue to do that in this manner, we will slowly kill innovation and inspiration. Marc Prensky states that “our Digital Immigrant instructors, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language.”

The final words to say are that smart learning is now an integral part of our lives, and its positive effects are evident throughout the world. TAG-SSB is planting the seeds for smart learning in our community and will continue to enhance its role for both generations; Digital Natives and Digital Immigrants.

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