

# Online Education Tsunami

6<sup>th</sup> Conference on e-learning Excellence in the Middle East.

Dubai - March 3rd, 2014

Dr. Talal Abu-Ghazaleh



Founder and Chairman of Talal Abu-Ghazaleh Organization (TAG-Org)

President of Talal Abu- Ghazaleh University (TAGI-UNI)

## **Contents**

Introduction .....	1
Challenges Facing Education.....	1
Education Without Walls .....	2
Online Education – A New Tsunami .....	3
The Growth of Online Education.....	4
Effectiveness of Online Education.....	5
New Online Educational Initiatives .....	7
Changing Attitudes .....	9
TAG-Orgs’ Technology Initiatives in Education .....	10
Concluding remarks .....	13

## **Introduction**

Your Excellences, Distinguished Friends, and Colleagues.

It is with great pleasure that I join you here today as a speaker at this prestigious event. In today's knowledge economy, the topic of digital education is of utmost importance and one that is very close to my heart.

I would like to begin with an initial premise, which I consider obligatory. That is, that education is a fundamental human right. From the roaming Bedouin to the farmer to the scientist to the businessman, all are empowered and given dignity by education appropriate to their environment, interests and goals. It is and always has been the pillar stone in any successful and equitable society and leads to the development of a richer economy, with citizens that can positively contribute to the betterment of their family and the society in which they live. Education is a necessity in the modern world and something to which all children, and adults, have a right.

## **Challenges Facing Education**

In 2011, the United Nations proclaimed that access to the Internet is also a basic human right. As the UN GAID chair at the time, I fought for this declaration and contributed to its drafting. I am a long-time proponent of online education and believe it can help to solve many of the issues faced in trying to educate global learners. Greater access to internet, ubiquitous technology and reduced costs, make now the time for online learning to flourish.

An original, and still enduring hope attached to online schools and courses, has been the democratization of education; the ability to tear down geographic, financial, and class barriers to educational attainment and allow anyone, anywhere to pursue their desired education. This is the great hope for those in developing countries, particularly the poor and rural residents, such as in sub-Saharan Africa, the Arab world, Asia, etc. It is the seminal purpose behind the creation of TAGI-UNI, the global online university I created with one abiding goal, to democratize education on a global basis, for the people of the Arab world, all other developing countries and developed countries as well.

As some of the initial euphoria and expanded expectations for online education recede, there is a new, more sober, reflective, and considered approach to

technology and education. More voices are being raised to emphasize that online education will not negate or even marginally reduce the need for actual teachers and professors. Furthermore, the online courses are not self-sustaining entities that can be created once, and launched into an enduring orbit in the online universe; instead, educators, with a focus on results and efficiency metrics are looking ever more closely at how online courses, including Massive Open Online Courses (MOOCs) and other related developments can support and interact in a symbiotic manner with traditional educational paradigms. Some educational experts have noted that simply putting courses online that provide one-way video or lecture formats, without interactivity or support is really not much different than sending someone a textbook in the mail! The need for teaching remains.

Inevitably this change in focus, results in a coming down to earth regarding the financial side of education, and so also impacts our dream for the democratization of education. Teachers and pedagogical technicians do not come cheap, at least not if you want quality, and so costs creep upwards. This may work for developed economies in the west, but it poses a problem for our goal to democratize education for everyone.

I cannot tell you that we have yet solved this problem totally, but we are making progress. And by “we” I mean both educators as a group, and also my particular educational institution, TAGIUNI. We are going to continue to witness a broad range of experimentation, creative destruction, and newer, more developed and complex educational paradigms. I am quite certain that online education, in its pure form, will continue to exist side by side with traditional universities. What remains to be seen is how we will ultimately be able to fulfill our dream and our promise to truly democratize education and provide it to all as a human right. I believe that it will be an evolution, and not a revolution, that leads us to our goal and it will likely take a combination of pedagogical, technological and financial development to make it happen.

### **Education Without Walls**

Online education allows universities to more fully and easily utilize information and communication technologies in the classroom, to improve pedagogical models, and use metrics to capture all key information and analyze teacher and student performance, as well as performance of the course-ware itself. These capabilities,

which are much enhanced, compared to traditional university classrooms, make online education, education without walls, of interest to traditional schools, as well as new purely online models.

### **Online Education – A New Tsunami**

Commentators such as the leading British educationalist Sir Michael Barber and Laurence Summer (President Emeritus of Harvard University) further elaborate on the problems with traditional educational institutions by saying:

- *“Deep, radical and urgent transformation is required in higher education.”*
- *“The models of higher education that marched triumphantly across the globe in the second half of the 20th century are broken.”*
- *“The traditional university is being unbundled.....An avalanche is coming.”*

(Source: *An Avalanche is Coming - Higher Education and the Revolution Ahead*)

Stanford University President John Hennessy has likened the status quo of higher education to a tsunami by saying:

- *“A tsunami comes and remakes the coastline and changes things dramatically. It both destroys some things, but it also creates new things.”*

(Source: *The Coming "Tsunami" of Online Education, Dr. John Hennessy*)

The failure of educational institutions is evident and will only get worse unless radical steps are taken to reform them. Reformation is a requirement in order to meet the demands of the students of today and of those in the future.

Allow me to share with you some additional statements from other prominent speakers and thinkers who have also commented on this failure and the need for the reform of education:

- *“Revolution hits the Universities”- Thomas Friedman*
- *“Online education is forcing elite schools to re-examine their priorities. In the future, they will educate the masses as well as the select few.” The end of University as we know it - Nathan Harden*

- *“An online syllabus could reach many more students, and reduce tuition charges and eliminate room and board. Students in an online university could take any course whenever they wanted, and wouldn’t have to waste time bicycling to class”*. John Hennessy, President of Stanford University
- *“Bail out Universities rather than Banks “- Sean Coghlan”* BBC News Correspondent
- *“Our students have changed radically. Today, students are no longer the people our educational system was designed to teach.”* Digital Natives, Digital Immigrants - Marc Prensky
- *“The Victorians were great engineers. They engineered a [schooling] system that was so robust that it's still with us today, continuously producing identical people for a machine that no longer exists.”* Dr. Sugata Mitra, Education Researcher in Newcastle University, UK.

### **The Growth of Online Education**

Let me share a few facts and numbers reflecting the growth and demand of online education globally:

- By 2019, ***half of ALL classes will be done online.***

*(Source: Corporate eLearning Exploring a New Frontier, WR Hambrecht.)*

- From 2000 to 2010, the market for e-learning has grown **900%**.

*(Source: <http://www.znanda.com>)*

- A consolidated group consisting of BEST and G500 (top 500 global corporations) revealed that they had strong and steady use of technology-based learning, delivering 42% of the formal learning hours via technology-based methods.

*(Source: 2012 ASTD Industry Report)*

- Corporate training alone is a \$200 billion industry. eLearning represents \$56.2 billion of this. This will grow into a \$107 billion market by 2015.

*(Source: GIA – Global Industry Analysts.)*

- Corporations save between 50% and 70% when they replace instructor-based training with e-Learning.

*(Source: International Options Market Association, IOMA)*

### **Effectiveness of Online Education**

Many educationalists now often ask how learning outcomes for online learning compare to that of traditional education.

*Is online education as effective as traditional, classroom based education?*

The answer is a resounding ‘yes’, with online education having many additional benefits associated with it such as flexibility for learners and the availability of a variety of rich learning materials.

While it is still too early to really judge the *full* effect and impact of online education, there is good evidence pointing to its efficacy and improved retention rates amongst students.

- “E-Learning is proven to increase knowledge retention by 25% to 60%.”

*(Source: Corporate e-Learning Exploring a New Frontier, WR Hambrecht)*

In gauging the efficacy of online learning, there has been some very interesting work conducted by the US Department of Education in 2010 where they evaluated the effectiveness of online learning. They found that out of ten detailed studies, seven found no significant difference between the two, two found statistically significant advantages *for* purely online instruction, and one found an advantage for blended instruction.

The results indicate that learning outcomes have been shown to be the same, if not better for online based programs, which is very encouraging for the future of online learning.

*(Source: US Department of Education, 2010)*

Another study conducted by the ITHAKA organization on the use of ICT based learning showed similar results. After studying the effect of e-learning on 600 participants, they found that there was no statistical difference in standard measures of learning outcomes between traditional classroom students and those in their hybrid classes and that this finding was consistent across subgroups of a very diverse student population.

*(Source: Higher Education in the Digital Age, William Bowen)*

These findings support the view of other educational researchers such as Dr. Sugata Mitra's whose work points to the fact that students from any social class can succeed when they have the technology enabler in their possession.

*(Source: Build a School in the Cloud, Dr. Sugata Mitra)*

What to look for in the future:

- MOOCs develop in ways that are hard to predict; some of the current predictions on their direction will be vindicated; others not so much.
- As content moves from printed page and textbooks to the laptop, tablet, etc. we will see improvements in the measurement of educational efficiency at both the individual and class level, as well as new competitive measures for educational providers. Analytics and metrics will take center stage in development and refinement of educational courses, with online education providing much of the data.
- The role, the importance and centrality, and continuing job prospects of educators will be fully vindicated. Until some form of unexpectedly and disruptively powerful artificial teaching intelligence arises, human teachers will remain central to the learning process online or elsewhere. John Ebersole, President of Excelsior College, says *“From surveys and interviews, we have come to know that the number one reason for student success, in a classroom or online, is a caring instructor. Also, online institutions are much more strict about limiting class size than traditional schools, usually setting a maximum of 20 to 25 per section. Thus, there is the need for more, not fewer, qualified instructors.”*

(Source:<http://learningworkshop.mindedge.com/2012/09/29/online-learning-recent-notable-quotes-2012/>)

- Online education is unlikely to negatively impact first tier, high quality schools but it may well eventually put pressure on 3<sup>rd</sup> tier, more marginal educational institutions that fail to offer a compelling value proposition in the face of increasingly disruptive technology and competition in the education sector.
- Improvements in online pedagogy will include greater interactivity, both between students and teachers, students and their peers, and students and the educational technology itself.

### **New Online Educational Initiatives**

MOOCs are one of the most interesting current developments in online education. Led by Ivy League universities, the MOOC movement has offered the opportunity for thousands or millions of students to have access to the same educational syllabi and educational materials as the brightest, richest, most well-connected young people on the planet.

MOOCs are the ultimate in the democratization of education; the blueblood elites have opened their table to the global have-nots. Dick Yue, professor of engineering at MIT, a global leader of the MOOC movement, commented on CNN that, *“One day someone will be able to take online courses from the 10 top universities cheaply or for free, and an employer will recognize that. I don’t know when that will happen, but when it does, I will be very happy.”*

Of course MOOCs open an interesting question, and that is the relation between true, or pure, education and education credentials, which is ultimately what schools are in the business of selling. For those accustomed to traditional fee-based, credential-producing educational institutions, MOOCs are an anomaly. They are currently about pure education, giving the unschooled masses the chance to dabble in the waters of educational purity, in other words, education for education’s sake. But as has been noted by many commentators, the real products offered by elite colleges are not truly the education, even though that is clearly available and may

be a byproduct of the system. But the real *raison d'être* for elite universities is to act first as a filter, providing a system that assures that its students are bright, motivated, hard-working, and well-socialized, characteristics valued by employers. They also provide students with the best four years of their lives, valuable credentials, and friends and contacts to help them throughout the rest of their lives in work, love and play.

When colleges and universities like Harvard, MIT, Stanford, etc. put their course content online, the real issue at stake is not education per-se or even a radical remaking of their business model; it is really about the question of copyright and a statement by these institutions that knowledge and information are too valuable, too precious to be hoarded; that does not necessarily take the statement so far as to say that copyright law is dead or outdated. Particularly at the individual or corporate level, copyright law remains essential and valuable; and these schools certainly have the right to maintain proprietary control over the content that they have developed. But in making their content available for free in MOOCs, they are making a bold statement about the idealism of their intentions as part of a global educational system, and at the same time portraying the strength and confidence and global educational leadership of their institutions.

Despite the fact that MIT, Harvard, and others like them make their course content for free online it is doubtful that the number of high school students applying for slots in these prestigious real-world campuses has decreased by even one single student!

Of course the most readily apparent impact of MOOCs is how they positively impact students and a huge global pool of aspirants to higher education. The other side of the equation is the impact of students on education. "...the leaders of edX (the Harvard-MIT mooc) described it as a tool that colleges can use to experiment with online courses and study how students learn." The ability of the schools to access data on how not just thousands, but hundreds of thousands and millions of students learn, is a less obvious but perhaps no less revolutionary aspect of MOOCs. Using this ability to understand how students learn and to improve pedagogic tools is an important aspect of the ongoing revolution in online education. Connected to this is the power to harness social networking

technologies to provide feedback to educators and in developing advances in educational systems. Crowd-sourcing aspects of the social networks associated with MOOCs can act as educational catalysts and significantly expedite pedagogical advancements.

Online programs will allow institutions to really get back to the core of delivering a good education to learners at a cheaper cost. Dr. John Hennessey, President of Stanford University, describes the effect of technology on education very expressively by stating:

- “There's a tsunami coming," "I can't tell you exactly how it's going to break" "but my goal is to try to surf it, not to just stand there."

*(Auletta, 2012), (The Wall Street Journal, 2012).*

It is of utmost importance that we do not just stand and wait for this ‘tsunami’ to overpower our education system. Rather we need to adapt in order to provide a better education for future generations. Adapting is what we as humans do best, and this is what we need to do in order to preserve education for future generations.

### **Changing Attitudes**

In order to change attitudes towards online learning, we need more studies showing unbiased comparisons between online and traditional learning. These should cover facts such as the relevant cost of providing each style of education, costs of content development, manpower required as well as measure the effect on student learning outcomes. We should remember that educators have a commitment to educate and produce scholars of tomorrow without leaving students neck deep in debt.

At present, many countries do not recognize online education so any such studies are best undertaken by independent governmental entities in order for them to be seen as being impartial and unbiased. This will help the recognition of online education and help to establish international bodies that oversee the quality and delivery of it. The domino effect here is very much at play where if the big players are seen recognizing online education, the rest will eventually follow and the necessary institutions will come into being to regulate its quality and delivery.

The question of e-content compatibility between systems and the quality of developed content is another pertinent issue which comes up. While e-learning standards such as SCORM have somewhat eased the issue of compatibility between systems, how do we ensure that the content being developed is of a high quality and standard?

Having established a world class financial audit firm, I find it a very difficult to accept that institutions can effectively audit their own work to maintain quality. The need for an independent body regulating online learning is paramount.

### **TAG-Orgs' Technology Initiatives in Education**

As a life-long learner myself, I took it as duty to fill the need of providing affordable, elite, accredited online education and established a concept which encompasses all the characteristics of a world-class educational institution. I have called this the Talal Abu Ghazaleh University. (TAGI-UNI - <http://www.tagiuni.com>)

TAGI-UNI is a pioneering alliance bringing together the best educational institutions globally, under one umbrella. Acting as a gateway to online education, TAGI-UNI ensures that only the highest quality online programs are offered to its students from reputable international universities and training institutes. This eases the burden on students to find a reputable online program, supports them in registering with a world-class institution, and provides them with the assurance that they will be backed throughout the duration of their studies by the reputation of the TAGI-UNI mother company -- the Talal Abu Ghazaleh Organization. (TAG-org, <http://www.tagorg.com>)

TAG-Org is committed to regional development and is exploiting opportunities to establish a broad regional framework mapping out enabling factors for success and facilitating a mechanism for educational development. TAG-Org's technology initiatives span over a wide range of projects meant for developing a pan-Arab network for ICT-enhanced learning. The objective is to provide an unprecedented chance to share information and experience about the successful implementation of ICTs and unlock the huge potential of the region. These represent an independent one-stop-shop that supports ICT for development, education and training to connect the entire Arab world – and everyone wishing to engage with it. My

ultimate aim is to boost economic development and ensure long-term stability and sustainability.

This approach is comprehensive and wide-ranging. It aims to promote excellence at all levels and in all sectors of education and learning, from early childhood to secondary education, higher education, vocational training, workplace learning and lifelong learning. Activities span the whole cycle of educational reforms, from setting up new tools to the integration of ICT infrastructure into education and learning systems.

As a passionate advocate of elite online education and technology, I have been instrumental in establishing up a number of projects in the sphere of online education apart from TAGI-UNI. These include:

- Talal Abu Ghazaleh Cloud (TAG CLOUD - <http://www.tagicloud.com> )
- TAGEPEDIA (<http://www.tagepedia.org>)
- ICT in Education in Five Arab States - Report (<http://www.uis.unesco.org>)
- TAGITOP (<http://www.tagitop.com>)
- ARAB CONNECT

1. TAG CLOUD is the first private cloud implementation in the Arab region. I am proud of such an achievement and my vision behind it was to have a pool of scalable IT resources that can be provided upon demand without the need of costly administration. TAG CLOUD supports TAGI-UNI's academic programs, connects students to the world, helps to simplify operations, and reduces costs by utilizing virtualization technologies. The TAG Cloud is used internally by the Talal Abu Ghazaleh Organization (<http://www.tagorg.com>) to host all of its critical applications to support its 83 offices worldwide. It will also be used to host TAGIUNI's educational resources and content which will be made available through a hierarchical federated access infrastructure.
2. TAGEPEDIA (<http://www.tagepedia.org>) is a unique concept directed to put up verified Arabic content on the Internet. The purpose is to disseminate credible knowledge from the Arab world covering all spheres of life, thus acting as a portal for disseminating Arabic knowledge globally.

3. The “ICT in Education in Five Arab States” report (<http://www.uis.unesco.org>) was a joint collaboration between TAG-org and the UNESCO Institute for Statistics. The purpose was to build capacity in Arab states by strengthening national capabilities to define and measure the use of ICTs in education, as well as to manage ICT policy development and implementation. This brought together policy makers from around the Arab region to see how ICT usage in education can be improved.
4. TAGITOP (<http://www.tagitop.com>) is a joint partnership with Samsung to produce a custom made affordable Notebook targeting Arab citizens. TAGITOP is a state-of-the-art portable computer that comes with variety of pre-installed applications and tools for learning, including professional Arabic dictionaries in accounting, law, and ICT.
5. ARAB CONNECT - Across the globe, specialized, high-speed communication networks have emerged as dedicated e-infrastructure platforms for research and education. Through these networks, students can seamlessly access a widespread and diverse educational content and resources. We are investing to become part of this global interconnectivity through a pan-Arab e-Infrastructure that links Arab institutions with reliable means of communication at the regional level.

These projects are a part of my humble contribution to the digital natives and for generations to come which show clearly how technology can be utilized to bridge the gap we are seeing in education.

## **Concluding remarks**

Technology has and will continue to be a key factor in developing education. It is a freight train which cannot be stopped. We all need to adopt it and rely on it if we want to remain relevant and not to fall behind. The generations of the future cannot survive without this technology and governments need to do more to regulate it, promote its use, and provide consumers with access to it.

My objective is to change peoples' attitude towards digital education. I want to prepare graduate students to become global citizens, equipped with the best skills to perform, make their mark in their respective economies, and compete on a global basis.

The role of our educators needs to move from teaching from textbooks, to becoming insightful, inspired scholars, promoting debate and richer learning amongst their students. Incentives need to be provided to educators to develop good online programs, which includes both training and support. In order to see this through, strong leadership from management and government is required, with a real willingness to want to change.

The intelligent harnessing of technology, coupled with strong support is already leading to highly valuable online programs being developed. I am sure that such a trend will continue to rise and I wish to see education available to all, regardless of age, gender, social status or location. This will help us all to ride the approaching tsunami in education.

No doubt there will be challenges associated with technology adoption along the way, but as with the industrial revolution, the digital revolution is indeed unstoppable. I am sure that my grandchildren and their children will read about its global effects in future history books.

Dr. Talal Abu-Ghazaleh,

Founder and Chairman of Talal Abu-Ghazaleh Organization (TAG-Org)  
President of Talal Abu-Ghazaleh University (TAGI-UNI)