



مۇسسىق محمدىن راشد آل مكتوم للمعرفة Mohammad Bin Rashed Al Maktoum K n o w l e d g e F o u n d a t i o n

Under the honourable patronage of His Highness Sheikh Mohammed Bin Rashid Al Maktoum,

UAE Vice-President, Prime Minister, and Ruler of Dubai

The Knowledge Summit 2016 Knowledge...Present and Future



Media Coverage

38





Summit followers over media and social media

7,400,000



A selection of experts and specialists in the knowledge industry

55



Online Registration

7,900



4,800

#Knowledgesummit

Audience

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Publisher



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UAE Vice-President, Prime Minister, and Ruler of Dubai



The Knowledge Summit 2016

Knowledge...Present and Future



His Highness Sheikh Mohammed Bin Rashid Al Maktoum UAE Vice-President, Prime Minister, and Ruler of Dubai May Allah protect him



His Highness Sheikh Hamdan Bin Mohammed Bin Rashid Al Maktoum Crown Prince of Dubai and Chairman of Dubai Executive Council



His Highness Sheikh Ahmed Bin Mohammed Bin Rashid Al Maktoum Chairman of the Mohammed Bin Rashid Al Maktoum Knowledge

Foundation



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Day One

December 5, 2016



Speakers:

H.E. Jamal Bin Huwaireb

Managing Director of the

Mohammed Bin Rashid Al

Maktoum Foundation

Ban Ki-moon

Secretary-General of the United Nations - TV speech

Sophie De Cayenne

Deputy Director of the Regional

Office – U.N.D.B. **Turki Bin Abdullah AlDakhil** General Manager of Al Arabiya Television News Network in Dubai **Guest of Honour Tony Abbott** Former Australian Prime Minister







Speakers: Thomas Frey Executive Director and Senior Futurist, Da Vinci Institute



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Speakers: Tony Abbott Former Australian Prime Minister

Moderator Beckey Anderson Anchor, C.N.N. International





Speakers: Dr. Jawad Anani Deputy Prime Minister for Economic Affairs Ambassador Theodore H. Kattouf President & C.E.O. AMIDEAS Moderator Sultan Mohammed Al-Nuaimi Faculty Member, Abu Dhabi University



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Speakers: H.E. Saeed Mohammad Ahmad Al Tayer Managing Director & C.E.O., Dubai Electricity & Water Authority (D.E.W.A.) Dr. Aisha Butti Bin Bishr Director General of the Smart Dubai Office Vivek Wadhwa Academic, Researcher, Writer, and Entrepreneur Bibop G. Gresta Chairman & C.O.O., Hyperloop Transportation Technologies, Inc. **Dirk Ahlborn** C.E.O. of Hyperloop Transportation Technologies, Inc. Moderator Dr. Sed Saad University Professor and Consultant in Innovation and Strategy



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Day **TWO** December 6, 2016





Speakers:

H.E. Jamal Bin Huwaireb Managing Director of the Mohammed Bin Rashid Al Maktoum Foundation Dr. Hany Torky Chief Technical Advisor, Arab Knowledge Project, United Nations Development Programme Najoua Ghriss Professor at the Higher Institute of Education and Continuous Training in Tunisia

Speakers H.E. Dr. Ahmad Belhoul Al Falasi Cabinet Member and Minister of State for Higher Education H.E. Elias Bou Saab Minister of Education and Higher

Education in Lebanon Professor Noureddine Selmi Deputy Minister for Higher Education and Scientific Research, Tunisia

Moderator

Professor Yousry Elgamal Former Minister of Education in Egypt and former Chairman of the Board of Trustees at Egypt-Japanese University of Science and Technology

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Speakers H.E. Hussain Bin Ibrahim Al Hammadi Minister of Education, Chairman of the National Commission for Education, Culture and Science H.E. Dr. Talal Abu-Ghazaleh Chairman of the Arab States Research and Education Network (A.R.S.E.N.) H.E. Elias Bou Saab Minister of Education and Higher Education in Lebanon Katsuhisa Sagisaka **Director of International Affairs** Division, M.E.X., Japan Tony Wagner Expert in Residence at Harvard University's new Innovation Lab. Moderator Dr. Prasad Ram

Co-founder and C.E.O. of Gooru









Speakers Saeed Saleh Al Remeithi Member of the Federal National Council, Chairperson of the Young Parliamentarians Forum in the Inter-parliamentary Union Ousha Salem Alsuwaidi Senior Developer, Experts and Consultants Office, Family **Development Foundation** Raha Hassan Muharraq The youngest Saudi and Gulf Arab Lady to climb Mount Everest Moderator Sarah Yousef Amiri Head of the Council of U.A.E. Scientists



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Day Three 3 December 7, 2016



Speakers: Prof. Mohamed Ghoneim Professor Emeritus of Urology at Mansoura University, Egypt Hugh Herr Associate Professor, Media of Arts and Sciences, Health Sciences and Technology, M.I.T. Media Lab Daniel Kraft Physician-Scientist, Inventor, Entrepreneur and Innovator **Moderator** Dr. Jamal Mohammed Al Kaabi Director of Social Development Sector, Office of the Executive Committee, Executive Council of Abu Dhabi



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Speakers: Jason Silva Media artist and TV personality, specialist in brain games

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Speakers Ali M. Jaber Dean, M.B.R.S.C., A.U.D. / Group T.V. Director, M.B.C. **Brandon Stanton** Photographer and creator of the popular website H.O.N.Y. (Humans of New York) Riz Khan T.V. Reporter Jason Silva Media artist and T.V. personality, specialist in brain games **Moderator Caroline Faraj** V.P. Arabic Services, C.N.N.



Speakers H.E. Eng. Hussain Nasser Lootah Director General of Dubai Municipality



Speakers Najoua Ghriss Professor at the Higher Institute of Education and Continuous Training in Tunisia Dr. Khalid Wazani Economist and Strategy and Knowledge Advisor at M.B.R.F. Dr. Motaz Khorshid Former Minister for Higher Education and Scientific Research in Egypt **Professor Yousry Elgamal** Former Minister of Education in Egypt and former Chairman of the Board of Trustees at Egypt-Japanese University of Science and

Dr. Ali Ibrahim Deputy Vice Chancellor for Students Affairs and Enrolment at U.A.E. University. Youssef Sadik Professor of Sociology, head of the Department of Educational Fundamentals, Mohammed V University Moderator Dr. Hany Torky Chief Technical Advisor, Arab Knowledge Project, United Nations Development

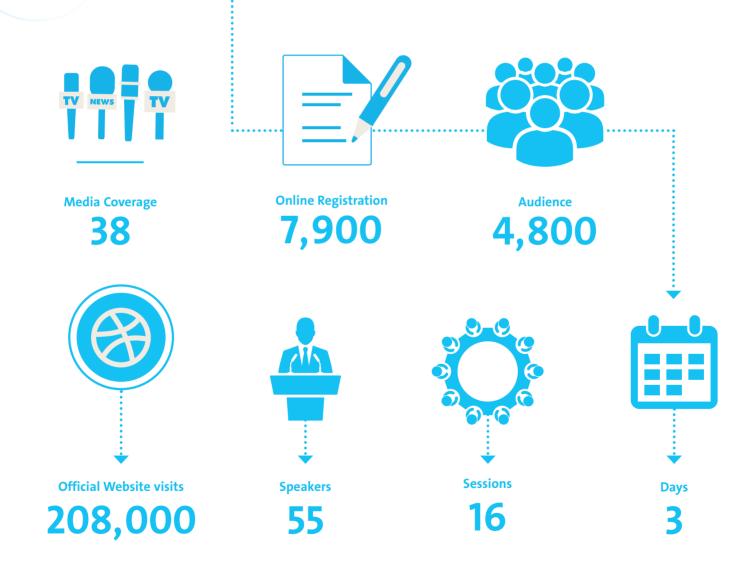
Technology Programme



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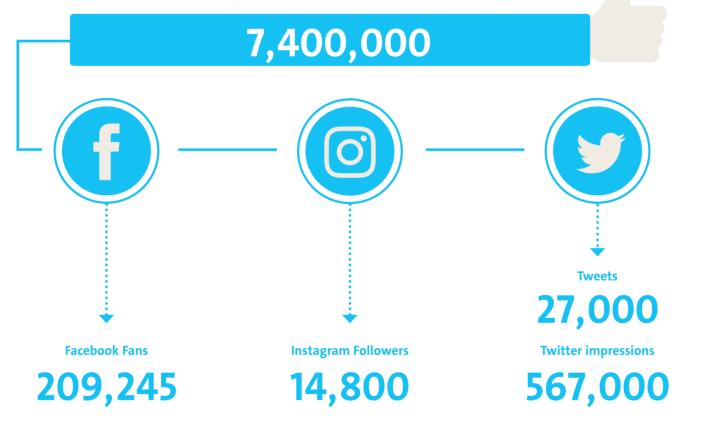
The Summit in Figures



The Knowledge Summit

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Summit follower over the media and social media



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Day One

Opening Ceremony



Session topics

- National Anthem
- Opening presenter
- Address by H.E. Jamal Bin Huwaireb, Managing Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation
- Address by Ban Ki-moon, Secretary-General of the United Nations – T.V. speech
- Address by Sophie De Cayenne, Deputy Director of the Regional
 Office UNDB
- Address by Tony Abbott, Former Australian Prime Minister
- Address by Turki Bin Abdullah Aldakhil, General Manager of Al Arabiya Television News Network in Dubai
- Announcing the winners of the Mohammed Bin Rashid Al Maktoum Knowledge Award



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The Knowledge Summer I

Speakers

• H.E. Jamal bin Huwaireb Managing Director of the Mohammed Bin Rashid Al Maktoum Foundation

- Ban Ki-moon Secretary-General of the United Nations – T.V. speech
- Sophie De Cayenne Deputy Director of the Regional Office – U.N.D.B.
- Turki Bin Abdullah AlDakhil General Manager of Al Arabiya Television News Network in Dubai



Tony Abbott Former Australia Prime Minister

Tony Abbott was elected as a Prime Minister of Australia on September 7, 2013 and served for two years. In his time as Prime Minister, the carbon tax and the mining tax were repealed; free trade agreements were finalized with China, Japan and Korea; and the people smuggling trade from Indonesia to Australia was halted.

Between 1996 and 2007, he was successively parliamentary secretary, minister, cabinet minister and Leader of the House of Representatives in the Howard government. As Minister for Health, he expanded Medicare to include dentists, psychologists and other health professionals and resolved the medical indemnity crisis.

As Minister for Workplace Relations, he boosted construction industry productivity through the establishment of a royal commission against union lawlessness. Prior to entering parliament, he was a journalist with The Australian.

He has degrees in Economics and Law from Sydney University and a Master of Arts degree in Politics and Philosophy from Oxford which he attended as a Rhodes Scholar. He is the author of three books: The Minimal Monarchy and Why it Still Makes Sense for Australia, How to Win the Constitutional War and Give Both Sides What They Want, and Battlelines.



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Managing Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation

H.E. Jamal Bin Huwaireb serves as Cultural Advisor to the Government of Dubai. Since May 2017, he has also been serving as Managing Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, as per the directive of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the U.A.E. and Ruler of Dubai. He is the Vice Chairman of the Board of Trustees and Secretary General of the Mohammed Bin Rashid Al Maktoum Knowledge Award.

A U.A.E. national historian and a pioneering man of letters, H.E. Bin Huwaireb is acclaimed for chronicling the cultural and creative movement in Dubai as well as the wider G.C.C. region. A prolific writer and novelist documenting Arab and Islamic heritage, he presents the popular T.V. show 'Al Rawi' (The Narrator) on Dubai T.V. The historical and literary show spotlights public figures that have positively impacted life in the region.

In addition to contributing features and thought pieces to a number of pan-Arab newspapers and magazines, Bin Huwaireb authors a daily column 'Dairy' in Al Bayan newspaper.

Sophie De Caen

Deputy Assistant Administrator and Deputy Regional Director for the Regional Bureau for Arab States in U.N.D.P.

Sophie de Caen has over 25 years of experience in international development. Ms. de Caen was UN Resident Coordinator in Cameroon. She began her UN career in Benin as a Junior Professional Officer, moving to the D.R.C. as Programme Officer. She went on to Bangladesh as Assistant Resident Representative (A.R.R.), and then to Sri Lanka as Senior A.R.R. Ms. de Caen took up a post in U.N. Coordination in New York and then moved to the U.N. Capital Development Fund to eventually become the Head of the Evaluation Office prior to becoming the Deputy Resident Representative for U.N.D.P. in Cairo.

She has a Bachelor's in Forestry Engineering and a Master's degree in International Relations.



Turki Bin Abdullah Aldakhil

General Manager of Al Arabiya Television News Network in Dubai

Turki Aldakhil is a Saudi journalist and media figure, currently the General Manager of Al Arabiya Television News Network in Dubai. He is also the owner of Al Mesbar Studies and Research Centre, Dorba Training Center and Madarek Publishing House in Dubai, Riyadh and Beirut.

Aldakhil has a tremendous experience in journalism, business and politics. He is the recipient of many journalism, media and social media awards and is recognised for his views and efforts against all forms of extremism, violence and intolerance.



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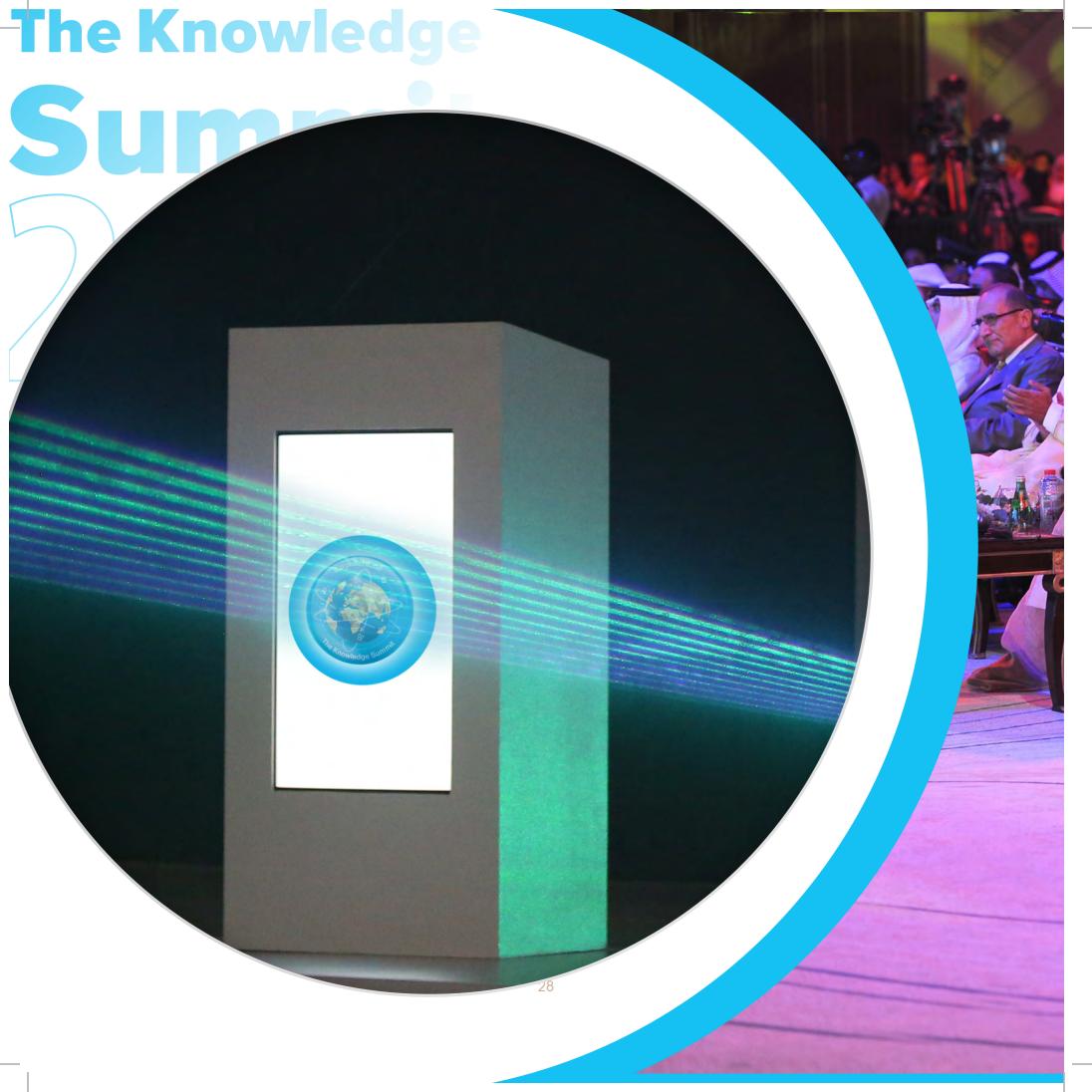


National Anthem

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His Highness Sheikh Maktoum Bin Mohammed Bin Rashid Al Maktoum

His Highness Sheikh Ahmed Bin Mohammed Bin Rashid Al Maktoum

Your Excellency, Ministers and Sheikhs,

Gentlemen,

Our honourable audience

Peace be upon you

First, allow me to welcome all of you in this proactive knowledge event at the level of the entire region, which starts today for its 3rd year, amidst the attendance and participation of an elite of creative people, think tanks, experts, and those directly concerned in the industry of knowledge and the future to form a knowledge platform, that combines under its umbrella excellency at the world level for discussion, exchanging experiences, offering visions and ideas, and review the best practices, in order to enable our societies to move forward in their march towards sustainable development and reinforcing the prosperity of peoples.

Brothers and sisters,

The U.A.E., represented by its rational leadership, has realised early the importance of knowledge and reading for building sustainable communities able to produce, spread, and nationalize knowledge, therefore it worked hard to launch these aspirations, leading the U.A.E. to assume leadership in the application of qualitative initiations, in order to enhance its position as a world centre for knowledge and culture. The State Leadership enhanced its support to knowledge and reading through the declaration of His Highness Sheikh Khalifah Bin Zayed Al Nahiyan, President of the State (may God Protect him) that 2016 will be the year of reading, followed by launching the national strategy for reading 2026. The national strategy included 30 initiations besides the issuance of the first law of its kind for reading establishes legislative frameworks and executive programs for the establishment and sustainability of reading. Highness Sheikh Mohammed Bin Rashid His Al Maktoum, Vice-President, Prime Minister of the U.A.E and Ruler of Dubai launched the Arab Reading Challenge Project to crown the march of achievements in the field of knowledge. The initiative has achieved tremendous results in its first launch, which proves that our nation reads, and is thirsty for more and more knowledge. Five million and three hundred thousand participants joined the Project from 54 different nationalities and over 160.000 students from 828 schools inside the U.A.E., who have read 5 million books in one academic year.

The Knowledge

Dear Audience,

The adoption of this kind of creative initiative, which is highly involved in the knowledge-creation process and building societies of knowledge, requires a real awareness of the role of future-foresight processes



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in drawing a clear picture of the mechanisms and tools of community development among decisionmakers, and recognizing the best ways for improving knowledge and using modern technology by all means to serve peoples and make them happy. This is what the U.A.E. leadership is keen to benefit from, therefore it laid down the Emirates Strategy for Future-foresight, which aims at looking towards the future rather than waiting for it, and put forward proactive plans to meet its challenges and utilise the opportunities it will offer at all levels in order to achieve prosperity for our society and for our people. No doubt, knowledge is not away from this strategy; future-foresight will contribute effectively in pushing forward the knowledge industry and production in our Arab region. Knowledge is the real fuel for the growth and development of all other sectors, as it is also the source of the power and of the leadership of nations, and the optimal path towards sustainable development. Thus, the Knowledge Summit 2016 contributes to a small part of this approach by highlighting the concept of foresight, reviewing the successful experiences of governments in this regard, and the future global trends that shape the future of knowledge. This years summit brings a new initiative of its kind, as a result of a long and in-depth effort between the Mohammed Bin Rashid Al Maktoum Knowledge Foundation and the United Nations Development Program (U.N.D.P.), which is the Arab Reading Index which is an important initiative aimed at measuring the Arab situation in terms of reading and culture development levels in the region, as well as keep abreast of knowledge initiatives in the Arab region and their impacts on communities. The summit will witness the announcement of the results of this indicator in detail.

Ladies and Gentlemen,

In continuation of the knowledge Summit launched from the beginning of knowledge projects, this year's session will review the updates of the Arab Knowledge Index, which is a specialized scientific tool for monitoring the reality of knowledge in the Arab world, taking into account the specificities of each country. The Index provides decision-makers, experts, and researchers with accurate information to support them in drawing up sound plans and policies for development, after it had passed several stages of evaluation and reviews over the previous period, and its data was verified against the world organization specialized in this field, in order to emphasize its credibility and keep pace with international standards. We hope that the Knowledge Summit (2016) will complement its previous achievements and bring about recommendations and outputs that will contribute to the process of building knowledgebased societies, depending on creativity and innovation for its advancement. Peace be upon you.

Knowledge...Present and Future 2016

Pan Ki-Moon

Former Secretary of UN

The Knowledge Summit

His Highness Sheikh Maktoum Bin Mohammed Bin Rashid Al Maktoum, Deputy Ruler of Dubai, His Highness Sheikh Ahmed Bin Mohammed Bin Rashid Al Maktoum, Chairman of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, your excellences, Ladies and Gentlemen, I send you my best regards. I send my sincere thanks to the Government of Dubai for organizing the Knowledge Summit 2016, which was established to support science and knowledge in the region and the world.

An essential step

The United Nations appreciate the efforts of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President, Prime Minister of the U.A.E. and Ruler of Dubai, which pours in the support of sustainable development, knowledge and education. Knowledge is an essential step to get ready for the future, especially for the youth who wish to have better opportunities in the future, and find suitable employment opportunities to utilise their capabilities in supporting knowledge.

In conclusion, I thank you all, and I wish you a successful summit.





Joint efforts have driven the knowledge sector to the region,

His Highness Sheikh Maktoum Bin Mohammed Bin Rashid Al Maktoum, Deputy Ruler of Dubai and His Highness Sheikh Ahmed Bin Mohammed Bin Rashid, Chairman of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, Your Excellences, Ladies and Gentlemen, On behalf of the U.N.D.P. Regional Office, I am honoured to visit the United Arab Emirates and the Emirate of Dubai to participate in the third session of the Knowledge Summit.

I send my thanks to His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President, Prime Minister of the UAE and Ruler of Dubai for organizing this important summit. I would like to express my great gratitude to the U.A.E. for participating in our Development Programme and our joint work to support sustainable development in the Arab region and around the world.

Let me share with you the most important achievements, which the United Nations Development Programme (U.N.D.P.) has achieved over the past 10 years. We had a close partnership with the Mohammed Bin Rashid Al Maktoum Knowledge Foundation to support the development of knowledge. This partnership inspired by the recommendations of the Arab Human Development Reports of the Programme In 2002 and 2003 up to date has borne a lot of studies and outstanding initiatives, such as regional reports, which provide analytical and objective reading of vital issues like education, knowledge and development. One of the most prominent fruits is the «Arab Knowledge Index» initiative, this leading indicator in assessing various aspects of knowledge in terms of development in the Arab countries and the digital platform «knowledge for all» available through mobile application. Today, the Arab Reading Index has been added to the achievements record of the Arab Knowledge Index. The Regional Office of the United Nations Development Programme has put forward its 16th annual report, and perhaps the most important outputs there is the gualified youth in the region, who need support in all sectors to enable them to perform their role as required. Intensive efforts with the Mohammed Bin Rashid Al Maktoum Knowledge Foundation to support education; in the past year we discussed the sustainable development agenda 2030, including human dignity, mutual respect and equal rights. I call to support the fourth goal, which supports education and knowledge, which is the base for sustainable development. The U.N. Regional Office is renewing its support for knowledge as one of the most important pillars of sustainable development in the Arab region. We also stress our commitment to continue efforts and close cooperation with the Mohammed Bin Rashid Al Maktoum Knowledge Foundation in order to support and promote knowledge in the region, as being the key for future development. Thank you very much.

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Tony Abbott

Former Australian Prime Minster

The Knowledge In the Knowledge

Your Highness, Excellences, and Distinguished guests. For many years, the supporters of knowledge encouraged me to visit Dubai. As soon as I arrived in Dubai in 2010, despite my arrival at night, I noticed the extent of the development witnessed by this Emirate and how it became one of the miracles of the modern world.

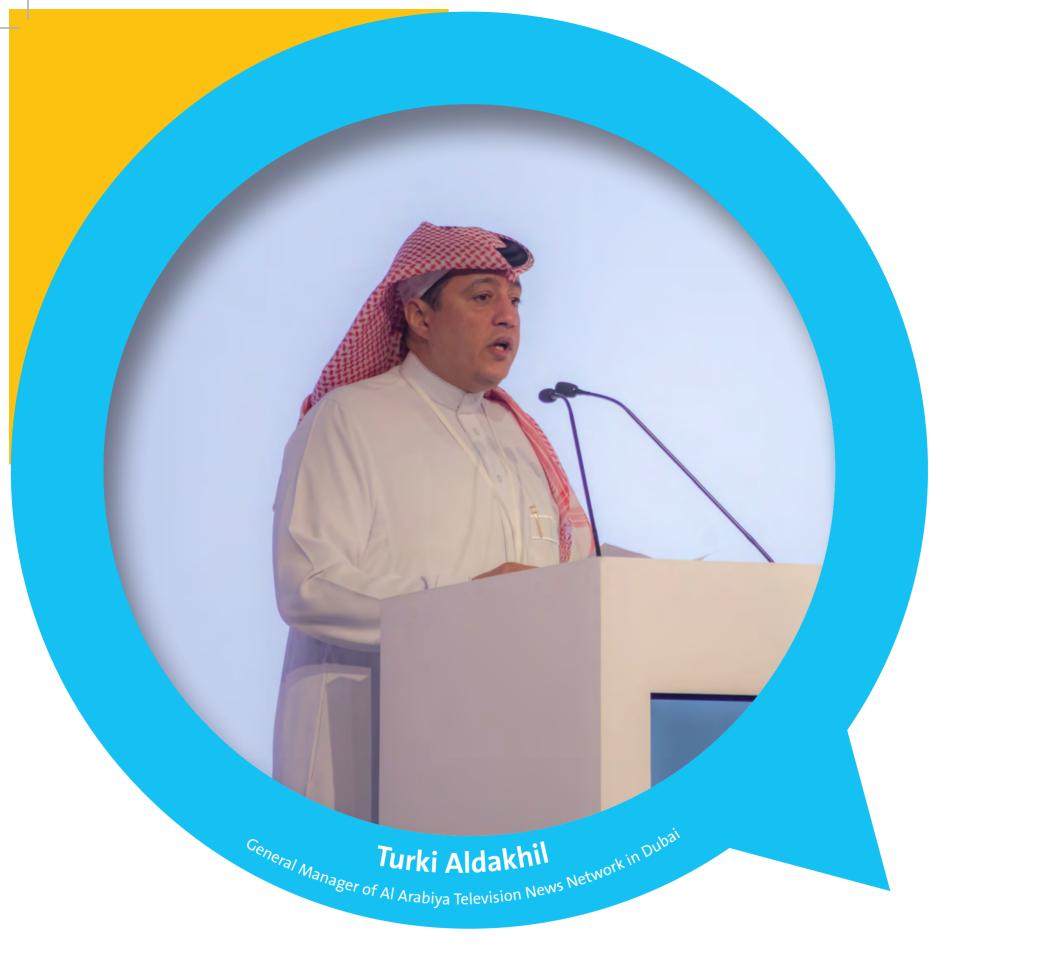
Dubai was not only a magical world like that of Aladdin and others, but has become a free emirate that values and respects intellectual, cultural and religious diversity. The contrast between Dubai and other parts of the Middle East is striking.

In fact, the U.A.E. is the best example that the Arab world is far from any extremism. The U.A.E.'s success is undoubtedly due to the government's keenness to focus its knowledge on the educational system besides its pioneering role in enabling and supporting youth to play their part, as desired by the Mohammed Bin Rashid Al Maktoum Knowledge Foundation. I would like to congratulate His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President, Prime Minister of the U.A.E. and Ruler of Dubai, and the leadership of the United Arab Emirates and its people for the successes and achievements of the U.A.E., hoping that the U.A.E. will be a model to follow in terms of respecting traditions and openness to change in the entire region. I also hope that the leaders in Iran will look forward to achieving harmony among all segments of society of different religions and races, as in the case of the United Arab Emirates.

Australia is looking forward to working with the U.A.E. as an economic and military power and a partner. It is impressive that the United Arab Emirates could make its way in this challenging world. If we look at some other Arab countries such as Yemen, Libya, Syria and northern Iraq, you will see an abysmal gap in which people have fallen, along with the manifestations of barbarism and cruelty that are not limited to individual incidents. The struggle against I.S.I.S. by military power is important, but what we need is not only a military victory; but it also requires intellectual and moral victory, including the religious revolution to which President Abdel Fattah al-Sisi called at Al-Azhar University.

The Knowledge Summit is a clear demonstration of the peace and prosperity to which we aspire. Such forums affirm the high level of intellectual communication reached by humanity, with the recognition of things that bring us together not divide us. Our goal is to establish bridges of communication and understanding, which is also the goal of your Foundation. Therefore, I have great honour to be among you today to contribute to the success of your endeavours.

To conclude, I would like to ask God to grant you success, thank you.



The Knowledge Ummit

These days we hear a lot about « the reading crisis» or «reading handicap» or «cultural desertification» in the Arab world. There are many writings, which considered this as granted and wrote about the causes of the crisis, and its obstacles. These studies were based on a number of figures, such as " Arabs read only 6 minutes a year", "Arabs read a quarter of a page a year", or "the Arab child does not read at all". By examining these figures reflecting all opinions, it is clear that there are many scientific errors in these studies. Therefore, the Mohammed Bin Rashid Al Maktoum Knowledge Foundation and U.N.D.P. decided to study the reading situation in the Arab region, using the experts of the Arab Knowledge Project. This method is based on a study of all the figures on the status of reading, and includes a questionnaire on students and non-student Arab citizens to know the status of reading in the Arab world. Through this study, a survey of existing initiatives related to reading, includes the Reading Challenge Initiative, the largest initiative in contemporary history, which is expected to have an impact on the results of the reading index in the future. The questionnaire was planned to involve some 20,000 Arab citizens, and the fact that those who participated are only 148,000 Arab citizens from all Arab countries, and this figure is the largest in the world. Among the benefits of the questionnaire is that now that we have a huge data, not only the number of minutes and books, but also

what the Arabs read? In what language they read? As well as respondents' opinions on the availability of data and environments that encourage reading at home, at the educational institutions and all establishments of the society. The questionnaire was not only limited to this, but it also asked about the attitudes and motivations of participants' reading. The participation of 148,000 in the guestionnaire is a good result in itself. The average of Arab reading per year is approximately 35 hours, 15 hours of reading in areas related to study or work, and 20 hours outside study or work. The Arab average reading per year is 16 books, of which 7 are related to study or work, 9 books are outside the scope of study or work, and electronic reading is superior to paper reading. Finally, we hope that the experts of the Arab Knowledge Project will continue to publish in-depth studies and analyses of all the results, disseminate them to all the Arab countries and continue to conduct this study every year so that we do not leave an opportunity for extraneous figures to control the views of the intellectuals, or give a pessimistic picture for the status of Arabic reading.



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H.E. Jamal Bin Huwaireb's speech during the handing over of the Mohammed Bin Rashid Al Maktoum Knowledge Award



Ladies and Gentlemen,

Our wise leadership in the U.A.E. was keen to establish a culture of knowledge in the community and make it a central focus in the development plans and strategies of various sectors. This has made our country a productive environment for creativity and innovation, and an incubator for talent and excellence in all fields. The Mohammed Bin Rashid Al Maktoum Knowledge Award aims at preserving intellectual and creative achievements by honouring the owners of world achievements and clear contributions in the fields of knowledge production and dissemination to stimulate the creative efforts, support their progress and their continuous drive for leadership, and reflect how keen the Emirate of Dubai and its leadership are in creating a competitive environment that instils innovation and creativity among its members; to develop the transmission and dissemination of knowledge, and to adopt them as the basis for the growth and prosperity of the world.

In conclusion, we would like to thank our dear leadership for its unflagging support for everything that would enhance the dissemination and production of knowledge which underlines the uniqueness and excellence of our nation among all nations in fostering innovation and creativity in all fields. Peace be upon you.

The Knowledge Summing



Honouring the winners of the Mohammed Bin Rashid Al Maktoum Knowledge Award 2016

His Highness Sheikh Maktoum Bin Mohammed Bin Rashid Al Maktoum, Deputy Ruler of Dubai, in the presence of His Highness Sheikh Ahmed Bin Mohammed Bin Rashid Al Maktoum, Chairman of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, honoured the winners of the Mohammed Bin Rashid Al Maktoum Knowledge Award during the opening session of Knowledge Summit 2016, which was launched at Grand Hyatt Dubai on December 7 under the slogan of «Knowledge, Present and Future».

• The Knowledge Award 2016 estimated at US \$ 1 million was awarded by Melinda Gates, Co-Chair of Bill and Melinda Gates Foundation, and received by Hassan Damluji, Head of Relationships in the Middle East at the Bill & Melinda Gates Foundation,

• Abu Dhabi Future Energy Company (Masdar), received by Dr. Sultan Ahmed Al Jaber, Minister of the State and Chairman of Masdar,

• The Arab Thought Foundation, chaired by His Royal Highness Prince Khaled Al-Faisal, received the award from H.R.H. Prince Bandar Bin Khalid Al-Faisal Bin Abdulaziz, Chairman of the Arab Thought Foundation.

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The Award is worth \$1 million.



The Arab Thought Foundation, chaired by His Royal Highness Prince Khaled Al-Faisal, received the award from H.R.H. Prince Bandar Bin Khalid Al-Faisal Bin Abdulaziz, Chairman of the Arab Thought Foundation.

The Knowledge Summit



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Melinda Gates, Co-Chair of Bill and Melinda Gates Foundation, received by Hassan Damluji, Head of Relationships in the Middle East at the Bill & Melinda Gates Foundation. The Knowledge Summit 2016 2016 47
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First Session: Future Technologies: What's Hidden?

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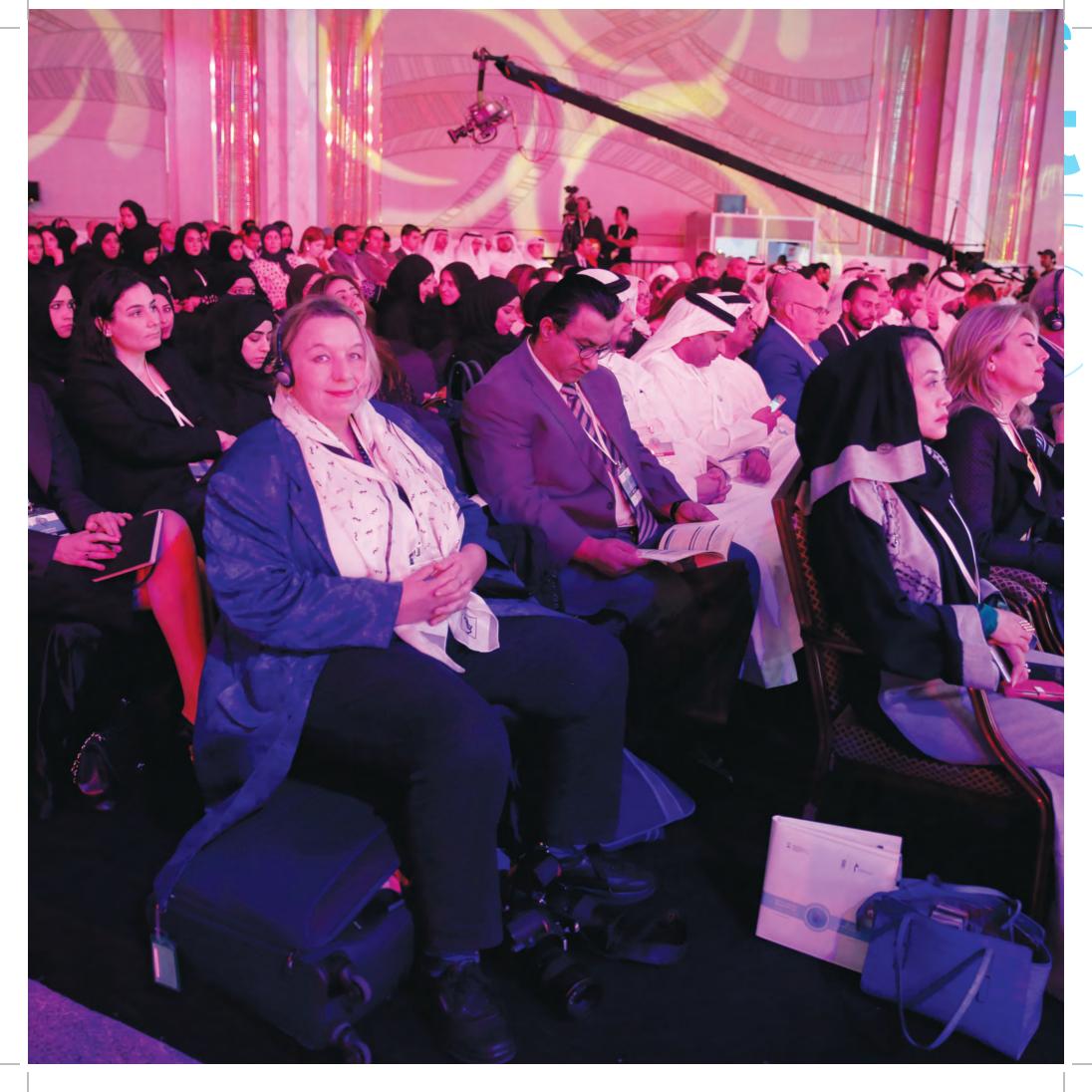
Thomas Frey Executive Director and Senior Futurist, DaVinci Institute

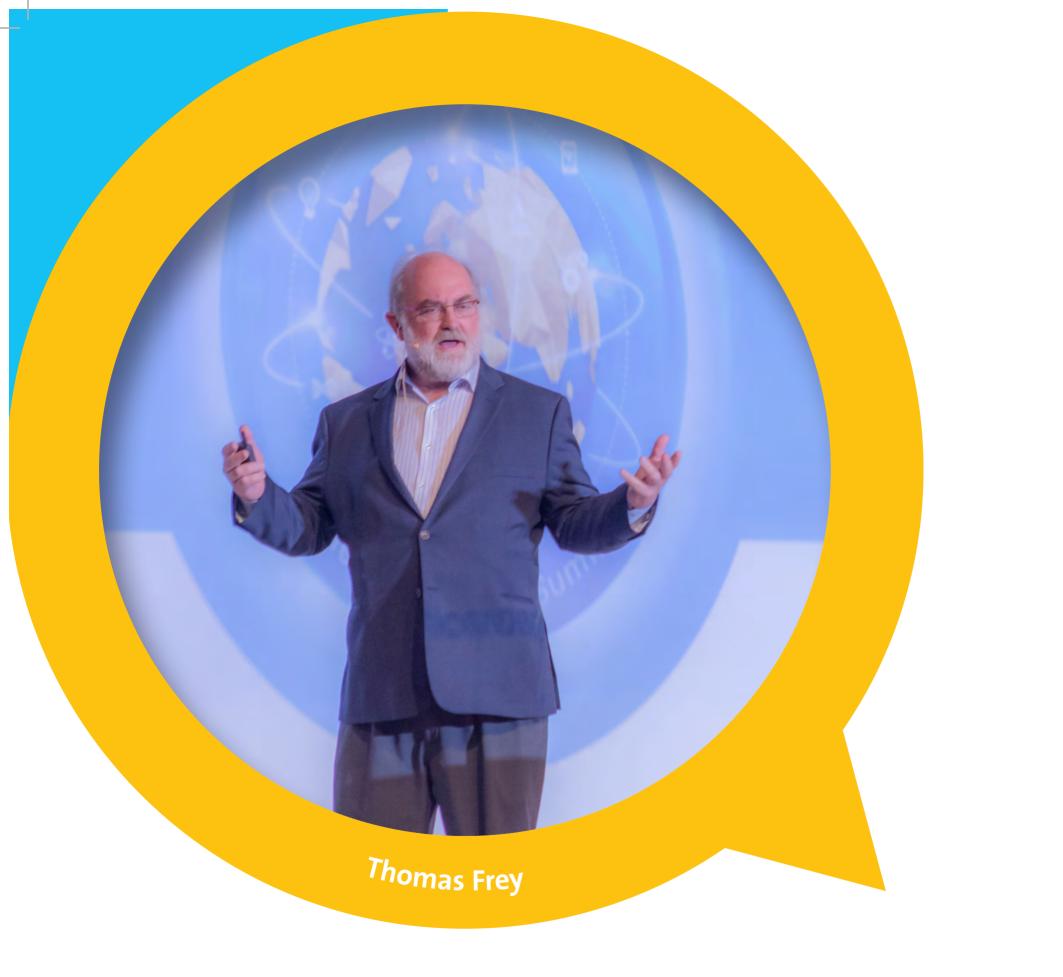
Innovation Editor, The Futurist Magazine.

Author of Communicating with the Future, futurist speaker Thomas Frey is a powerful visionary who is revolutionizing our thinking about the future. Over the past decade, Thomas Frey has built an enormous following based on his ability to develop accurate visions of the future and describe the opportunities ahead. Having started seventeen businesses himself, and assisting in the development of hundreds more, the understanding he brings to his audiences is a rare blend of reality-based thinking coupled with a clear-headed visualization of the world ahead. As part of the celebrity speaking circuit, Tom continually pushes the envelope of understanding, creating fascinating images of the world to come. His keynote talks on futurist topics have captivated people ranging from high-level government officials to executives in Fortune

500 companies. Tom is Google's Top Rated Futurist Speaker and







The Knowledge Ummit

I am honoured and delighted to be with you here in Dubai. Let me talk to you about the future, and think about the future vision, allow me to play this short video, which was produced in 1962. The short video that you have just seen depicts life in the future. produced by Gaston Company. However, here we shall talk about the picture of how life is supposed to be in the future a hundred years from now, which we will try to understand now. To achieve this, the company has formed a working group, and I was one of them, and I would like to show you what we have reached on the future vision of life in 2062, through the work of Gaston Company team. This short video can be used as a commercial advertisement, but it is really a vision of what the future will be like, although we are still living as prisoners of the past, its events and experiences. Shaping the future is a hard mission, so we need a process to create a future that is part of the present we live in. Many people think that the future vision is what determines their

actions today, and if we change the way one shapes his vision for the future, it means that we change his way of thinking in decisionmaking today. I promise that in the next few minutes I will change your decision-making style in line with this vision. My daily drive from home to work had a profound impact on my future vision. I agree with the view that the main reason behind the failures of some companies lies in their lack of future vision. When it comes to the future vision, there is a difference between chaotic innovation and disabled innovation. which means disabling the basic elements and components of industry while the first means to create ideas that will create new industries that may cost billions of dollars. The most prominent example of a future vision in the industry is: steel industry in the future and how it will differ from what it was in the past. In the future 100 years from now, one billion jobs will disappear from all sectors and fields, which is a warning about the need to create new jobs faster than before, and we should now think of creating new scopes of work. There are new jobs in mobile applications that will account for 47% of all jobs in the world. Within the framework of the future vision of industries in the world, many of these industries will be replaced by new ones,



Over 2 billion jobs will close by 2030. People have to think of other opportunities. the same goes for companies that operate in the field of taxi services, which will change completely in the future, as well as companies operating in the space industry and in the technology sector, Finance and others. Among the industries that will also change in the future is the automotive industry around

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the world (you are now watching a video showing what the industry will be in the future) and the same - as I mentioned before – goes for passenger service companies, where millions of taxi drivers will lose jobs. All these changes will happen guickly in the next three decades. Taxi and car rental companies will disappear, driver jobs and other service sectors will disappear. For example, Volvo and its plans for the future are in the process of producing a car that can resist collisions on-road and be safer for drivers. Retail stores, filling stations, car wash, laundry and laundry shops, changing tyre shops, spare parts and others will all disappear in the future, where new services shall appear developed by companies like Ford, GM, Mercedes and Volvo, which will produce millions of cars that are expected to cover all major cities around the world. Parking spaces in general and parking spaces for people with special needs and traffic jams will disappear in the streets. As a result of all these, the pattern of thinking will change completely with regard to the use of cars; the dominance will be for electric cars. Cities will be calmer between 2030 and 2035, and also we will see changes in driving on main roads and highways. After the disappearance of parking areas at airports, by 2030 the so-called "Drone Taxi" will appear produced by Airbus Company, which will enter into service at that time and which will need to be dedicated to land in our cities. All this will ultimately

save billions of dollars and reduce millions of traffic accidents on the roads, as well as minimize damage, material damages and loss of life, estimated to cost 20 million people a year around the world. The same will happen in the form of television sets in the future, which will change completely in terms of form, and the high and advanced technologies used. If we compare these devices at the present time with devices fifty years ago, no doubt we will notice a substantial difference. Here I would like to emphasize that creative people are more valuable and important than innovators. There is no doubt that any new product in our lives is the product of work and effort of these people together, and has a significant impact on our lives. Let us now turn to another important sector of the digital world to see how digital products affect different aspects of our lives. For example, solar energy accounts for only 2% of the world's total energy, but this figure will double in the coming years to grow at a faster rate than before; solar energy is expected to become the world's dominant in the next 12 years. We are witnessing the same shift for smart homes and smart cities, and we cannot forget the change in the telecommunications sector and its effective impact in the future. Thanks to the tremendous revolution in the world of communications, many celebrity film stars and singers have achieved the highest rates of viewing on the Internet, reaching billions of



viewers around the world. In the same course, let me present some important data and figures that reflect the enormous changes and developments that the world has witnessed in the past decades. The world's first billion bikes were registered in 2003, taking into account that the usage of bikes traces back to 200 years ago. In 2010, the world's first billion cars was used. It took about 23 years for McDonald to achieve the first billion hamburger sandwiches sold. Facebook needed eight and half years to reach the first billion users. It took about five and half years for "UBER" company to achieve the first passenger transport services, the first billion passengers transported. However, the fact that billions of jobs will disappear in the future does

not necessarily mean that we will not find a job to do. Because human resources remain important in the development process, there are many opportunities and jobs that will become available in the future. In any case, I have come up with three basic laws on financial capabilities, including: the first law, which states that with all automation and technical development a shortage of effort arises, but leads to an increase in capacity. The second law is that the achievements made today are more common, but there are more achievements to replace them in the future. We can think faster and do business better and faster than before, and millions of jobs are expected to be available on the Internet and on websites.



The Knowledge Summit 2016 Knowledge...Present and Future 55



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Day One

Second Session Future Foresight and Decision-Making



- The Concept of Future Foresight
- Methodologies and Tools of Future Foresight
- Governments that succeeded in Future Foresight
- New Insights, Methods and Techniques for Forecasting and Decision-making
- O How Important is Future Foresight?
- Foresight Experiments and their Impact on Decision Makers (their role in decision-making)
- The means employed in this area
- Future Global Trends that Shape the Future of the Knowledge in the World

The Knowledge

The Knowledge Summit

Speakers

Philip E. Tetlock Co-founder of Good Judgment, Inc.

Mike Singh Chairman and C.E.O. of Telkom Caribe Group

Sulaiman Mohamed Alkaabi

C.E.O. of Future Foresight Foundation, Abu Dhabi



Theodore Jay Gordon World Renowned Futurist and Management Consultant

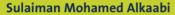
Ted Gordon is a specialist in forecasting methodology, planning, and policy analysis, an entrepreneur, and an inventor. He is co-founder and Board member of The Millennium Project. He also served as emeritus director of the Institute for Global Ethics. In addition, he is a recipient of the Ed Cornish "Futurist of the Year" award and the Shaping Tomorrow Lifetime Achievement Award.

Co-founder of The Institute for the Future, and founder and leader of the Futures Group for 20 years. Ted authored many reports, peer reviewed technical articles, and five books on the future, space, and scientific and technological developments and issues. He is the author of the Macmillan encyclopaedia article on the future of science and technology, and is currently on the editorial board of Technological Forecasting and Social Change.



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C.E.O .of Future Foresight Foundation, Abu Dhabi

In 2013, AlKaabi highlighted the importance of establishing a centre dedicated to forecasting the future at the Ministry of Interior (M.O.I.), and called for applying future foresight tools in various M.O.I. departments. Since then, Mr. AlKaabi has launched several initiatives related to future foresight, and he lectures throughout the country about futures studies and future scenarios.

In July 2015, he proposed to establish a Foresight Centre within the Federal Government, based in the Office of the Prime Minister, to establish a department dedicated to future foresight in every ministry and to link it to that centre.

Mr. AlKaabi is the first person from the U.A.E. and Gulf region to join the Association of Professional Futurists (A.P.F.), and he is a member of the World Future Society (W.F.S.). Mr. AlKaabi is the author of the "Future Foresight Encyclopaedia" in Arabic, the first of its kind in the Arab World.



Mike Singh

Chairman and C.E.O. of Telkom Caribe Group

Mike Singh is a globally respected telecoms, media and technology consultant and an investor in the Indus-Americas Subsea Cable System (B.R.I.C.S. Cable) which is expected to solve the bandwidth constraints faced by the emerging markets of the Southern Hemisphere, via the linkage of Asia, the Middle East, Africa and the Americas.

Mike Singh established Telkom Caribe in 2004. His global leadership roles include responsibility for Latin America, Africa & Asia at A.T.&T., Tata Communications, Level3 Communications & XO Wholesale now part of Verizon Communications.

In 2000, he joined the Global Digital Divide Initiative during the W.E.F. India Economic Summit as chair of the strategy and policy committee, which established a program to deploy Internet into the most remote corners of the Indian subcontinent via the combined efforts of the Indian I.T. Sector and major multinational companies like Microsoft, Hewlett Packard, Flag Telecom, British Telecom and Dell.



Philip E. Tetlock

Co-founder of Good Judgment, Inc.

Dr. Tetlock is Co-founder of Good Judgment, Inc., and is Leonore Annenberg University Professor of Psychology and Management in the School of Arts and Sciences and Wharton School of Business at the University of Pennsylvania. Over the last 30 years, his research has focused on expert judgment, biases and errors, and the impact of accountability on errors and bias.

He has published over 200 articles in peerreviewed journals and books, including most recently the New York Times bestseller Superforecasting: The Art and Science of Prediction, which is based on the results of the Good Judgment Project, of which Tetlock was the co-principal-investigator.

Tetlock has received awards from numerous organizations, including the National Academy of Sciences, American Academy of Arts and Sciences, American Political Science Association, American Psychological Association, and the Carnegie, MacArthur, and Grawemeyer Foundations.





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The foresight process implies a number of capacities, including the ability to evaluate, an analysis skill, the ability to data extrapolation regarding certain subjects. Moreover, we should have the ability to read science fiction and have imagination in general, with inspiration and innovation. Therefore, we should have innovative and creative individuals in addition to experienced persons; the opinions of all these persons meet and converge together, reaching an accurate and correct foresight. I remember, since I started to recognize these practices and topics related to foreseeing the United States presidency elections, and making predictions of the outcome of these elections. Most speculations were wrong, here we may wonder about the reason or reasons behind this, although, there are more than 19 survey establishments and institutes that have worked on that direction for a long time, especially the night before the elections. Then, what was the mistake here? 17 were wrong, whether regarding the republican candidate, Donald Trump or the democratic candidate, Hillary Clinton. What was the mistake made in the accuracy and validity of these speculations? The reason is that there is a general belief that a candidate such as Trump would not be the proper candidate, and that he would be unable to continue the battle of presidency elections. Especially, if we take into consideration the historical background of that candidate or the other candidate,

and Trump's political opinions. Decision makers consider all these factors.

The fact is that devices and technologies cannot even give us completely accurate outcomes or allow reliable speculations. There should be a mistake margin, regardless of the advancement of these devices. Using such samples may be mistaken in measuring and evaluating policies. Moreover, data are considered as an important fact, like reality, because it is included in humanities and social sciences. These data is very useful in the process of analysing issues on the ground, as is the case in analysis or diagnosis in medicine. The so-called artificial intelligence is also useful in this area, as its feasibility has been proved in many human areas as an example. In the recent election process, we have seen electors unsatisfied about their attitudes regarding many internal issues. Some of the most prominent issues are the increasing rates of unemployment as an example, future opportunities, obtaining more work vacancies, health care, an increasing concern about the big gap between the policies of the right and of the left in the United States, and the sciences that we need in the future.

There are also increasing concerns towards terrorism in the world, and general worry about increasing the capabilities of terrorist groups because of their use of vital means of technology to implement terroristic attacks and destructive schemes. This issue is one



of the biggest threats that face the world nowadays, and it must be solved. Now, we do not understand what is right and what is wrong. The increasing populism trend is attributed with other factor in the social media or what is now called social information, spreading in the latest years without any recognition or understanding of basic values and of the principles

of the media.

I am pleased to have with us in this discussion panel, Philip E. Tetlok; Dr. Tetlock is Co-founder of Good Judgment, Inc., and is Leonore Annenberg University Professor of Psychology and Management in the School of Arts and Sciences and Wharton School of Business at the University of Pennsylvania.



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"Understanding and foresight of the future require a kind of honesty with oneself, optimum utilization of its tools and unleashing imagination and creativity."

First, I would like to thank you all for inviting me to give a speech to you. I have worked in the field of foresight for a long time, maybe for 32 years, since the former Soviet president Gorbachev was an unknown political figure in the Soviet political office. In addition, I have worked in the field since the critical debate inside the United States at the period of the former deceased president Ronald Reagan, regarding nuclear conflict with the Soviet Union back then. The work that I performed at that time was funded and sponsored by the U.S. government. We have

Philip E. Tetlok

chosen millions of foresights from thousands of survey institutions for this mission, which we started long ago. Two major topics appeared in this work: the first one is that the foresight expert is not the person who can predict things regularly. The second thing is that this expert is excellent in the area of explanation and interpretation. What I mean is that in 1984, neither the conservatives nor the liberals of the United States were able to determine or anticipate the changes that occurred to the Soviet Union between 1986 and 1990. Both sides of U.S. conservatives and liberals had different situations, ideas and foresights regarding the policies of Gorbachev in respect to the possibility of nuclear confrontation with the United States, and Moscow's policy in Afghanistan after the Soviet invasion to that country. This model or example has been repeated several times when it was related to studying experts' opinions in matters of future foresights in the world of politics. We have a very limited ability of foresight, based on some related facts and data. The most important thing in the foresight process is to be honest with ourselves and honest in dealing with facts. These points are the major condition for the individual to be a better and ideal foresight expert. I would like to assure you that if you want to get the best benefits behind the foresight process, whether in your country or your company, you should do three main things:

First: the need to have an imagination and innovation ability, related to artificial intelligence, that achieved outstanding results and significant achievements in many countries all over the world, predicted to witness several changes in the field of the use of robots in different areas of daily life, manufacturing and production. This means to eliminate millions of jobs in companies in the United States and other countries. Second: it seems difficult for many individuals, companies and establishments, as the matter needs a system regarding the accuracy of foresights; the International Monetary Fund is an example of that. As you can see on the screen through the diagram, which shows the repetition of words such as "probably, possible, may be" in the report on the world economic outlook 2014 of the Monetary Fund. Such words that come in the context of the Fund foresights may be an indicator for the foresights regarding inflation and deflation in the world economy. In this light, it is better for foresight experts and analysts of future affairs to stay away from ambiguity, and make sure to simplify things for people, as much as possible. Ambiguity is considered one of the biggest obstacles to hamper the foresight process. Let us take the example of the other diagram appearing on the screen that shows fore sights related to one of the financial establishments, asking experts to produce their foresights regarding potential revenue. The experts worked on this matter for three days. They determined revenue rates that amounted to 90% and other rates with 50%. They used the words "Yes, the percentage is a surprise" and the words "No, it is not a surprise" in front of the two percentages. They added the sentence "Yes, the percentage is a surprise" in front of 50%.

Third: It is the spirit of teamwork, the training of people to work together without conflicts, and making sure to continue work to achieve benefits. At this point, we place the importance of a diversity of opinions and avoid obstacles that may hamper work, evaluation process and data analysis.

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"The B.R.I.C.S. Cable project is considered as one of the giant technological projects, which in turn will determine the features of the new generation of internet and how it can be used."

It is my pleasure to be here in Dubai in U.A.E. I would like to seize this opportunity to congratulate its leadership and its people after 42 years since the establishment of the country, which achieved a great success politically and economically at all levels. Today, we should be proud of the comprehensive development that Dubai witnesses,

Mike Singh

which makes it look completely different from the old picture in Khor Dubai. The enormous achievements of Dubai in less than fifty years equals the achievements of advanced industrial countries in Europe in hundreds of years. Thanks to the founder of the country, His Highness Sheikh Zayed Bin Sultan Al Nahyan, his wise and sharp vision and that of his sons; like father like sons. In 1965, the U.A.E. did not own the natural resources that it owns now. More important, it had human capital, therefore, within thirty years, the country moved to the rank of one of the most developed countries in the world.. All this leads us to recognize and understand the fact that investing in the human element and resources remains the most important thing in the comprehensive economic development process and the endeavour to achieve economic growth, because this element is the driving power in the entire economic activity. Moreover, this development miracle cannot be achieved without encouraging and adapting education, in addition to motivating innovation. The Arab world needs to give attention to education and make it available to every individual; leaders of U.A.E. understood this from the beginning. Here, I am pleased to show you a short video before I move to the second point of my speech. (At the beginning of the video, there appears a shot that shows the earth with the motto of Brics Cable, followed by the sentence of Steve Jobs: "Everyone here has the sense that right now is one of those moments when we are influencing the future". The video that includes several illustrative pictures continues, and assures the idea that the world has become a digital one. In addition, the digital and communication revolution made the world as one in all fields: economy, education, science, family

affairs, religions, governments and others). Today, we find that the world has became connected and more interactive than before. Regions of Asia, Africa, the semi-desert and even Latin America are all connected through Brics Cable. It is important that Dubai participates in this network and joins other countries; especially since Dubai has a highly important strategic location on the world map, which makes it a pivotal communication point. Moreover, it is necessary to bring this cable network here to help achieve more innovation projects and programs. Every day, we hear about new developments in the internet world. No developments could happen without a sustainable innovation that gives the real value that we want. In this regard, I would like to suggest to the M.B.R.F. and the government of U.A.E. that Dubai should keep exerting efforts and implementing its ambitious plans to migrate into a global innovation centre, linking the East and the West. Moreover, it's necessary to pay attention to the subject of cluster network, because it is one of the most dangerous challenges that face the whole world nowadays. Finally, I would like to thank H.E. Jamal Bin Huwaireb and the M.B.R.F. for generously inviting me to deliver a speech in front of you. In addition, I would like to thank everyone who participated to make this great gathering successful, and give it the shape that we all now see.





"The concept of future foresight is deemed academic work and not a philosophical frame, as it answers a number of questions regarding the way to prepare for the future and required skills and occupations."

Who among us never asked themselves about our schools in the future, and whether there will be schools in the U.A.E.? What are the occupations that will disappear from the U.A.E.? What are the occupations of the future? What are the crimes that will be committed in U.A.E.?

Sulaiman Mohamed Alkaabi

Future foresight means understanding the challenges that we will face in the future, knowing how to defeat them and realizing potential opportunities to grasp them. Therefore, what is the difference between strategic planning and future foresight? Future foresight is an entrance into strategic plan, while strategic planning is the exit for future foresight. Imagine you are a ship captain, your establishment is that ship, and the vision in front of you is narrow; it is the real situation. You call an observer and tell him to climb up the mast to see the horizon from a wider perspective. He, for example,



tells you that there is something like an island, or something coming towards us that looks like a ship, and it could be so and so, because future foresight does not depend on 100% correct information, but it speaks with ambiguity and speculation. You, as a ship captain, tells him to give you solutions, what to do; he answers: I just draw the way the future looks, and I cannot tell you what you should do. Ask your team of strategic planning to develop plans according to the given data, to face potential challenges or take potential opportunities. The team of strategic planning begins to develop plans according to the given data. For example, they prepare cannons just in case the coming ship is a pirates' ship or store equipment inside the ship, etc. Steps of future foresight according to the University

- of Houston are as follows:
- Framing
- Extrapolation
- S Foresight
- O Prediction
- Openation of the second sec
- Implementation.

There are 26 tools of future scenarios. I have developed a strategy that is called AlKaabi strategy, and the successful scenario is the scenario that enables the establishment to learn, and helps the establishment to take the correct decision.



The Session

Future foresight has a significant importance in decision-making



The Knowledg

Moderator: Thank you all, honourable attendees. I am pleased to be here with you to manage this session under the title of "Knowledge and Future Foresight", in which we will try to highlight the essence and importance of foresight.

Our session discusses in depth several main topics that focus on foresight concept; its methodologies and tools, successful government models that succeeded in future foresight, and modern approaches and techniques for prediction, and their impact on decision-making.

Please, let me introduce the main speakers. I will start with Dr. Philip E. Tetlock, Co-founder of Good Judgment, Inc. and is the Leonore Annenberg University Professor of Psychology and Management, in the School of Arts and Sciences and Wharton School of Business at the University of Pennsylvania; his researches focus on foresight throughout the past 30 years.

The second speaker in our session is Mike Singh, Chairman and C.E.O. of Telkom Caribe Group. Mike Singh is a globally respected telecoms, media and technology consultant and an investor in the Indus-Americas Subsea Cable System (B.R.I.C.S. Cable), which is expected to solve the bandwidth constraints faced by the emerging markets of the Southern Hemisphere via the linkage of Asia, the Middle East, Africa and the Americas.

Finally, yet importantly, the third speaker is Sulaiman Mohamed Alkaabi, C.E.O. of Future Foresight Foundation, Abu Dhabi, who is the first person from the U.A.E. and Gulf region to join the Association of Professional Futurists (A.P.F.), and is a member of the World Future Society (W.F.S.). Sulaiman Alkaabi is the author of the "Future Foresight Encyclopaedia" in Arabic, the first of its kind in the Arab World. Alkaabi holds an M.S.C. degree from the University of Teesside, U.K., and is a B.A. from Abu Dhabi Police Currently, Mr. Alkaabi is preparing his doctoral thesis at the University of Bradford, U.K., entitled "Future Foresight: a New Approach in the U.A.E. Government.

Technology has no effect in decisions of future foresight

Future foresight is the ability to predict what will happen, and take the proper decision that suits what is predicted. Future foresight became important because of the desire of the human mind to experience risks and find things that can potentially become a fact in reality.

The second type of future foresight presents models that are based on physical theories, depending on extrapolation of other main issues that may form, largely, a part of the future picture. However, developed devices and modern technology will not have a major role in the future regarding the change of decisions or contributions in future foresight. Especially since big data provides physical models that have no equivalent in sociology. This will lead to the existence of a gap between predictions and the needs of societies in the future, and an acceleration of its size.



Philip E. Tetlock: Peace be upon you, I am pleased to participate in this session. Please, let me thank the organizers of the Knowledge Summit that aims at highlighting the importance of knowledge, and enhancing programmes and ideas that help in disseminating knowledge awareness all over the world.

To understand and get a foresight of the future, we need a kind of honesty with ourselves, and have an optimum use of its tools. In addition, to obtain its benefits and perfection, it is necessary to perform many basic practices, including foresight workshops that depend on giving enough space to imagination and innovation, in order to answer persisting questions that concern a big sector of individuals in the society, to participate in enhancing innovation and imagination.

It is measured by figures, not an objective

Moreover, future foresight requires the existence of an evaluation system that is measured by figures, not a target. Therefore, accuracy in prediction requires rigid criteria in measurement, and determines



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factors that will support and enhance accuracy, so as to achieve distinctive and correct results. In addition, this requires measuring fluid intelligence; one kind of intelligence that can be developed through repeating experiment and learning how to do work within a team, and with accepting different points of view, without the occurrence of any problems.



Mike Singh: Peace be upon you, I am pleased to be with you here to talk about the importance of knowledge and future foresight. Human capital is the most important factor in the success of the process of investment and innovation. This cannot be achieved unless there is a progress in education levels, provided by governments to individuals of the society. Especially since recently, Arab countries have come to the top of countries of the world in providing education in its various stages to all individuals of the society.



Sulaiman Mohamed AlKaabi: First, I would like to thank all the attendants in the hall and I am pleased to be with you all today. In the shadow of prediction that two billion jobs will disappear in the coming three decades, two other new billion jobs; we have many questions regarding how to be prepared to the future and the required skills and occupations. The answer for these questions begins with recognizing the concept of future foresight, which is considered academic work and not in the philosophical frame. Future foresight is built on possibilities; therefore, knowing it requires perfection of tools and techniques, taking into consideration the difference between foresight and strategic planning. Moreover, strategic foresight is based on focusing on a huge amount of predictions, the thing that needs more imagination and innovation. Thus, it is a long-term planning for a period more than 10 years.

Strategic planning focusses on less amount of trends, the thing that requires less imagination and innovation. Therefore, it is a short-term planning for a period from 3 to 5 years.

Scenarios have the ability to use very different tools and this depends on the purpose of each scenario or information and data that you are looking for. If we wish to search for data that highly relates to a project, then we can find precise scenarios for this purpose. The matter is related to inputs to be based on while using scenario approach.

I remember one scenario that was developed fifteen years ago regarding a terrorist, who designs a destructive weapon at his mother's house. This person is symbolized with an only source of destructive power. This weapon can destroy half of the world. The scenario focused on the terrorist identity and how could he achieve this matter. Although, this scenario was a kind of pure imagination back then, it has turned into tangible reality that we live now. Therefore, the ability to imagine is the factor that forms an important tool in real and true scenarios. Now, we will listen to comments and feedbacks of the three main speakers before interventions of the audience and start answering questions of the attendance.



Philip E. Tetlock: I would like to comment on integration between the scenario of partial and full approach of dealing with prediction process. The first approach is what we used with the U.S. government for the subject of generating questions, our main

concern actually. We give extra care to the question quality. The more proper and related to the topic the question is, the more helpful it be in building decisions and judgments in the frame of strategic planning in general. Focus shall be on possibilities of judgments and elements related to predictions scenario. Therefore, it is necessary to pay attention to accuracy in extracting and deducting predictions based on data given. I am sure that if we asked the correct question in the correct manner at the proper time, we will get the required indicators for early warning, which are useful in strategic plan.



Mike Singh: I am very pleased with this discussion. I would like to say that Broadband technique is not less important than clean water, education and health to human and even human rights, the thing that I hope to be available here and everywhere else. Thank you all.

Moderator: I have to notes; the first one is that predictions that we consider wrong, can sometimes be very useful. Sometimes we find that some people, who get these predictions through the wrong way, are useful too, because if you determined the person,



who gets these predictions in a wrong manner; by this, you did a good thing. When we are about giving notes on scenario related to predictions, we work on expanding possibilities circle, which is a very good thing. Moreover, I would like to confirm that although scenarios are here useful, it should not be considered the only useful and effective prediction tool.



Sulaiman Mohamed AlKaabi: Driving from my experience over two years in the field of prediction

scenario, we can say that there are many tools to form these scenarios, which is headed by the ability to determine the proper mean to be used, in order for getting the desired results. In addition, it is necessary to check the accuracy of collected information. If you get useful and accurate information, you will definitely reach better and more useful results.

Moderator: let me tell you about a story published in newspapers before 15 years about a young man, who made explosives at the kitchen of his family's house. The objective was his desire to destroy half the population of the world. Although it is a science fiction story, it has important significance, which is represented in being an indicator for spreading of terrorism ghost in the world after years, because it is included under the process of scenario related to future predictions.

How can we find a link between youth, progress and accelerated changes?

Mike Singh: if you want youth response, you should enable them and fulfil their desires in addition to invest their abilities. If we did not give them excellent education and invest in their future interests, we will miss the opportunity. Moreover, they will be a fertile environment for terrorist groups. Therefore, the Arab world, in particular, shall solve this problem; especially that youth represents a big section of the society, through giving them the opportunity to recognize that there is hope awaiting them in the future. In addition, this empowerment will increase their sense of responsibility, the thing that will make them raise an important role in the future development.

Youth category in the Arab world is active and effective on social media; therefore, it is necessary to find a way to utilize these energies and develop them positively and fruitfully in developing their societies.

The first question: my name is Waleed Hussain, from "Expert Advance" in Saudi Arabia. Thanks to all the speakers for this rich cognitive discussion. I have two short questions:

First, this morning we heard about the definition of the wisdom and genius of the crowd, can you shed light on the meaning of this phrase? The second question: We are aware that technology has become pervasive in all aspects of our lives, and we talked about artificial intelligence, robots, the Internet and others. Now this part of the world needs to create new jobs for young people when it turns out that 60% of the youth in the region are under the age of 20, which is considered a demographic challenge to the peoples of the region, how do you see the possibility of addressing this problem? Thank you. The Knowledge Summer Summer Summer Summer States of the second se

Philip E. Tetlock: One of the great challenges we face in our work on expectations is to draw wisdom from the categories and segments of the audience that we address and target, therefore we use a variety of tools that are sometimes based on human psychology, which in turn is based on accurate statistics and data. It is important to extract wisdom from the audience away from contradictions in the achieved results, taking into account that they should be compatible. When you do this, you usually start by asking people at the command centers in the company hierarchy, so you start asking the boss or manager. Here we use the Delfi method to direct questions and get answers. This method differs from the traditional method of discussion groups.



Moderator: This method is also used in the area of market expectations, where it deliberately predicts the

best prospects and future conditions of its activities and transactions. The most prominent feature of this method is that it depends on the exchange of ideas and visions among a variety of experts, planners and strategists who address a specific subject, resulting in differences and consensus in their views, but they finally reach a unified compromise on the subject or issue under discussion.

Second question: I wish you all the best regards and appreciation for this very useful and productive discussion session. My name is Dr. Saif Abu Nahl, Professor of Law at the University of Science. I have only two questions in the context. First, through my observations on the subject of the discussion, I concluded that the foresight is hypotheses, guesses and conclusions on a particular subject. My question is: When do we apply our expectations? What is the right time to apply them? My second question is about education. With the growing and rapid development of education, how can the youth and students be linked to this continuous acceleration? How do we create a link between this growth and the thinking of young people and their minds and their understanding of this rapid development?



Moderator: Well, this is very good, thank you so much for these questions. I think the second question is about young people, which is the same theme as the first questioner, but we've missed it, so we'll try to answer both questions. My question to the members of the Committee is: What led to this rapid change? How can it be linked to young people, their aspirations, hopes, jobs, future, and hopes for them? How can these young people become part of the future vision?



Mike: To do that and involve young people in this vision for the future, you should encourage them again and again. You have to convince them that a device like this (holding a device in his hand) is useful for them, and teach them how to use it. You should also give these young people access to broadband technology and provide them with good education

and good job opportunities, and make them feet important and appreciated and that you are betting on them and their potentials that they deserve to invest and employ well. If you do not do this, you will inevitably lose these young people, but when you provide them with everything they want, you protect them from wrongdoing and falling as an easy prey to terrorism and joining terrorist groups and extremist organizations such as ISIS and other extremist movements. There is no doubt that the youth of today are the leaders of tomorrow, and the Arab world is really suffering from the problem of how to invest the best in youth and energy. We must then inform the youth that they are part of the future and that they are part of the solutions of the problems and issues of the society. They must feel there is a ray of light at the end of the dark tunnel. In my opinion, any projects or programs for economic and social development implemented without the active participation of young people will be doomed to failure. Officials in the Arab world should also pay more attention to youth through, for example, the creation of centers of excellence that will motivate young people to innovate, create and benefit from their creative ideas.



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Moderator: I would also like to add that we must make young people part of all this, and ask them about their expectations and hopes for the future and survey their views on this vision.



Philip E. Tetlock: Young people need all these things that energize and motivate them as you have mentioned, as well as helping them to get to know their best in a constructive and positive way and make them more capable of thinking and innovation.

basically based on making this process part of expectations. As mentioned by speakers, it is necessary to involve young people in drawing and shaping the future.

We receive the last question from the audience to conclude this session.

Q: My name is Fatima Al-Suwaidi, and I hold the position of the Head of Knowledge Management at a government agency. My question is about future forecasting or future foresight. My question is: what is the difference between the future vision and the strategic planning process of companies in dealing with the possibilities and hypotheses that already exist. What is the difference between the idea of strategic planning and future forecast or foresight?





Moderator: It turns out that our work in the area of expectations and future prospects is

Moderator: Strategic planning is one of the most important elements of future foresight and the decision-making process, which is a process that follows an inclusive approach to achieve predefined goals and objectives, and anything that ultimately supports all these elements. As for the





appropriate time that must be used to carry out the planning process, in my personal assessment it depends on the dimensions and objectives of your planning strategy and the actions you will take for their actual implementation. There is no sense or logic to set expectations for doing something, for example, over the next thousand years without identifying the features of actions that you will take for practical implementation. In the conclusion of this session, I would like to thank you all for these useful and productive interventions and contributions, hoping that you all have benefited therefrom.

Now we will leave you with a short 10-minute break and then we will have a session with Tony Abbott, Former Australian Prime Minister.



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Day One

Third Session "Panel discussion" Speakers Anthony John "Tony" Abbott Former Australian Prime Minister



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Speaker

Anthony John "Tony" Abbott Former Australian Prime Minister



Beckey Anderson Anchor, C.N.N. International

Becky Anderson is one of C.N.N. International's highest profile anchors. She hosts "Connect the World with Becky Anderson." Anderson is based in C.N.N.'s Abu Dhabi bureau, allowing her a distinctive regional perspective on some of today's most important news stories, including the deepening humanitarian crisis in Syria and the ongoing Israeli-Palestinian peace process.

Anderson is a skilled interviewer, adept at close questioning and has interviewed many of the world's leading politicians, decision-makers & thought-leaders, including most recently President Recep Tayyip Erdogan of Turkey, Lebanon's Prime Minister Tammam Salam and President Beji Caid Essebsi of Tunisia.

Anderson has extensive business journalism experience including posts with the U.K.'s I.T.N., C.N.B.C. Europe and Bloomberg. She began her career in journalism as a print reporter with various business publications, after gaining a Master of Mass Communication from the Walter Cronkite School of Journalism at Arizona State University.



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Anthony John "Tony" Abbott

Former Australian Prime Minister

Tony Abbott was elected Prime Minister by the Australian people on September 7, 2013 and served for two years. In his time as Prime Minister, the carbon tax and the mining tax were repealed; free trade agreements were finalized with China, Japan and Korea; and the people smuggling trade from Indonesia to Australia was halted.

Between 1996 and 2007, he was successively parliamentary secretary, minister, cabinet minister and Leader of the House of Representatives in the Howard government. As Minister for Health, he expanded Medicare to include dentists, psychologists and other health professionals and resolved the medical indemnity crisis.

As Minister for Workplace Relations, he boosted the productivity of the construction industry by implementing a royal commission against union lawlessness. Prior to entering parliament, he was a journalist with The Australian.

He has degrees in Economics and Law from Sydney University, and a Master of Arts degree in Politics and Philosophy from Oxford, which he attended as a Rhodes Scholar. He is the author of three books: The Minimal Monarchy and Why it Still Makes Sense for Australia, How to Win the Constitutional War and Give Both Sides What They Want, and Battlelines.





Good evening ladies and gentlemen! This session is not related to me as a journalist and managing editor of C.N.N. office in the Middle East located here in Dubai. The session is dedicated to the top politician Tony Abbott, Former Australian Prime Minister, who has a significant interest in education and its problems, and has endeavoured to solve illiteracy problems all over the world. I am pleased to say that the United Arab Emirates is my country, and reading is my first passion in life. I have inherited the passion for reading from my 85-year-old mother, who retired after spending 60 years in the education field. It is well-known that Australia is one of the leading countries in education. The first national initiative for the reading year was launched in 2012 to be a reading nation. Please, welcome Mr Tony Abbott.



Beckey Anderson





Thanks, Beckey! Thank you all. I have a great pleasure and honour to talk to you again, as it is the second time I have that honour. In addition, I have the pleasure to hear your interventions and discussions. which I will welcome after the presentation that follows my speech. I want to say that before becoming Prime Minister of Australia, I spent much time in schools and universities to monitor the education status. This comes from my strong belief that education is the real key for our future. During my duties as a parliament member, in 2007, I gave my entire attention to education issues, problems and development. In the subsequent years, my efforts focused on enhancing education and schools level in remote areas, in the South of Australia, in the state of Queensland, where we can find some villages that are deprived of education and suffer from lack of schools and school libraries.

I have held the office of parliament member for five years, and then been a government minister for six years, after that I was in charge of health affairs for five years. Afterwards and to this day, I have dedicated my efforts to the education and teaching field.

Though my country, Australia, spend billions of Dollars every year on education, we still need more to be done for the development of education. In addition, we need higher quality in this area, as we suffer from higher levels of unemployment. Moreover, we deplore local violence, low wage levels and an increasing level of mortality. Most of these issues are due to gaps in the social welfare system, and a diversity of cultures throughout the country; this is actually our great tragedy. Unfortunately, these problems exist in many developed countries that enjoy welfare and prosperity. In remote areas in these countries, many ordinary people are deprived of the right to education, and there are high rates of illiteracy among them. From my teaching experience in several Australian schools, my message and efforts have become more significant for the rise, enhancement and development of education. However, even with this continuous strive for enhancing education, things were not working as desired. The performance level in some remote schools has been

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«Education is the secret of success in the future. Success in the education field depends on values, criteria, strong curricula and experienced teachers.» lower than the targeted 50% on the national level. Schools' positions were tragic, teachers faced many problems, and there were no developed teaching programmes. Therefore, the education process has become messy. In addition, the major problem was how to motivate and encourage students to educate and understand the curricula. All these issues were prevalent in



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2009. The subsequent year, I spent almost ten days inspecting Schools' positions in some areas there; they were messier. Despite all these issues, the conditions have completely changed in a radical manner, thanks to the efforts exerted by some loyal friends and some institutions concerned with education. Direct education started to emerge in some schools in these areas. I spent a long time making the useful experience of a reading skills enhancement programme for children in some schools. The programme focused on asking the children to focus on writing letters and some easy and simple words that represent or refer to what the child hears and can easily understand. This method was highly similar to the one I was taught with during the primary stage of my education almost 50 years ago. It was, somewhat different in the educational methodology used in western countries, as some of

these countries called in question traditional values and standard criteria.

Fundamentally, the direct education experience or system implies a high-level education, and useful and accurately developed curricula. In addition to lessons that have to be taught to students in educational semesters, it focuses on achieving the maximum education benefit and achievement for students to achieve



«Dubai's leading experience in the area of encouraging knowledge and education, motivating more people to read and encouraging them to be interested in education».

the desired progress in their capabilities and skills. I have experienced myself how fruitful that method was. Moreover, it achieved excellent results with students whose education performance has improved. Going back to schools that I have visited before when I was Prime Minister, I found a completely different picture. The situation there has been remarkably improved. These schools need effective education programmes that raise students' level and improve their skills. Moreover, these programmes contribute in enhancing education skills and the methods used by teachers in a very useful way. Going back to 2004, the government invested about 24 million Dollars in the so-called remote school enhancement program, in addition to helping to grant dozens of these schools effective direct education programmes that fulfilled the needs and skills of students, including the ability

> to count, calculate, read, write and think. Recently, these programmes have been applied to all schools and curricula. Many education experts acknowledge that this teaching method is considered the best way to teach students and improve their skills and abilities. In 2010, McKenzie College stated that there are four major elements in the education process that ensure the success of the process. These

four elements are providing methodology-based education, encouraging students to attend school on a regular basis, ensuring equality between students and providing a proper environment for teachers to work in semesters. All these elements jointly constitute the core of our message because the school that does not adhere to this message betrays the assigned duty towards all our children. The lesson to be well recognised is that we should learn from our failures. In the shadow of the recent Australian Prime Minister, there is a determination to correct the path of the educational process and enhance its basic components. This means providing effective educational curricula, involving parents in the educational process, improving educational principles and values and qualifying excellent teachers, as well as providing sufficient funding for education and its programmes. Improving education means to stop failing and learn lessons from these failures. I really admire Dubai's leading experience in the area of encouraging knowledge and education, motivating more people to read and encouraging them to be interested in education. In a word, this is the optimum method to build a better world for humanity.

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Panel discussion



Moderator: Thank you Tony. Really, I am pleased to be with you, dear attendees. During this discussion, we have heard shocking statistics regarding illiteracy rates all over the Arab World. These statistics appear this year, the "year of reading" in the United Arab Emirates. This has been announced during the Arab Reading Index. I have a question to you; do you think these two initiatives are sufficient to make a real change in the Arab educational view?



Tony Abbott: For me, this kind of initiative is extremely important, and I see changes coming, which is the most important matter. It is necessary to give young children the best quality of education in their early

life. The child who cannot read, write, calculate and think is actually abnormal, because it means society let him down in this area.



Moderator:

In your speech, you mentioned the period of your work as Australian Prime Minister. You mentioned that you were struggling to reform and enhance the educational sector. By comparison and measurement, the Arab World struggles to develop education. This is what knowledge initiatives of M.B.R.F. seek. The foundation endeavours to face challenges and crises in this vital sector all over the Arab World. My question is, drawing from your experiences as well, how can we use your vision and experience to improve and enhance education among children in refugees camps in Arab countries and apply them to the children?



Tony Abbott: what I meant is that in Australia we were able to use bases and principles established by education establishments out there to improve education in schools. For the Arab region, I believe, as I mentioned earlier, that it is necessary to begin with focusing on basic and primary principles related to the development of the reading, writing, calculating and thinking skills of children.



Moderator: At the beginning of your speech, you referred to the Australian youth, regarding the increasing trend of Populism and saying that some young men are affected by that trend. Especially after Donald Trump became president of the United States. This trend is strongly increasing and widespreading, starting from the Philippines, all the way to Philadelphia. My question is, what is your vision about the recent situation? In addition, what do you think is going to happen?

Tony Abbott: I believe that the first point is that what is going on in the Middle East should be seen in the context of the general developments that the world witnesses nowadays. For example, the tragic events occurring in Syria are also a part of the negative view in the world, in addition to what happens in other regions in East Europe, Asia and other unstable areas in the world. However, we should not miss the positive side, as this magnificent world achieves success in several other fields. Based on the statistics, in 1990 less than half the population of the world could get clean drinking water. Moreover, more than 37% of the world population lived in extreme poverty; now, this number has decreased to 9%. Nevertheless, what occurs in countries of this region, such as Syria and Iraq makes us sad. The conflicts that occur in specific countries in the world are very dangerous, however, the contamination to other countries is more critical. I remember the words of the current Australian Prime Minister, noting that Australia is far away from these conflicts and does not intervene. However, our country may be affected by these conflicts, its effects are not far, and can reach Australia at any



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time. The clearest example of these repercussions is the enormous influx of refugees from countries that witness these conflicts to adjacent countries and other countries in Europe in the few last years.



Moderator: Suppose that you are still the Australian Prime Minister, and you want to address a message to the U.S. president Donald Trump, what would you say in your message?



Tony Abbott: U.S. President Donald Trump is the legitimate president who came to power after democratic American elections. In this respect and capacity, he is considered as a leader of the whole free world. Therefore, we should respect him, regardless of his opinions and thoughts, notwithstanding the disagreement or agreement with him regarding all these matters. However, the Trump election is the same as the Brexit and the elections which occurred

in Italy, which raised different reactions inside and outside the United States. In my opinion, this is normal. In a country such as U.A.E., we find the picture is completely different compared to what happens in the world, as political and economic stability exist all over U.A.E. We see that countries of the region don't have this issue, thanks to the leadership of the U.A.E. that has achieved stability and prosperity for the people, a situation that shall be continued and maintained.



Moderator: Do you think of returning to the political arena and stand as a candidate for being Australian Prime Minister once more, and be in the headlines again?



Tony Abbott: I am not interested in appearing in the headlines as you say. I am still a member of the Australian parliament and happy with my parliament duties. However, I always bear in mind to express strongly my opinions in the political arena, locally and nationally, in order to enhance conservative and liberal values.



Moderator: This is the Knowledge Summit, in its third edition, 2016. What do you think is the significance and objective behind this summit, which is under the patronage of U.A.E., besides its feasibility to the knowledge issue in the whole world? What is your opinion in this respect?



Tony Abbott: I try to be as practical in my thinking as possible, so let me say it frankly: this country is successful to an extent that other countries in the world could not achieve this kind of success. I believe that when a certain country announces to the world a call for discussing a specific vital matter or issue, this call shall be answered. Moreover, I see that characteristics that distinguish the U.A.E., compared to several other countries in the region or the world, make the U.A.E. a unique model in terms of respect of the original customs and traditions, keen on developing human capital and invest it optimally. In addition to involving the citizens in the development process and making sure that, the U.A.E. participates in building the future, respecting the cultural diversity of the many nationalities that work in the U.A.E.



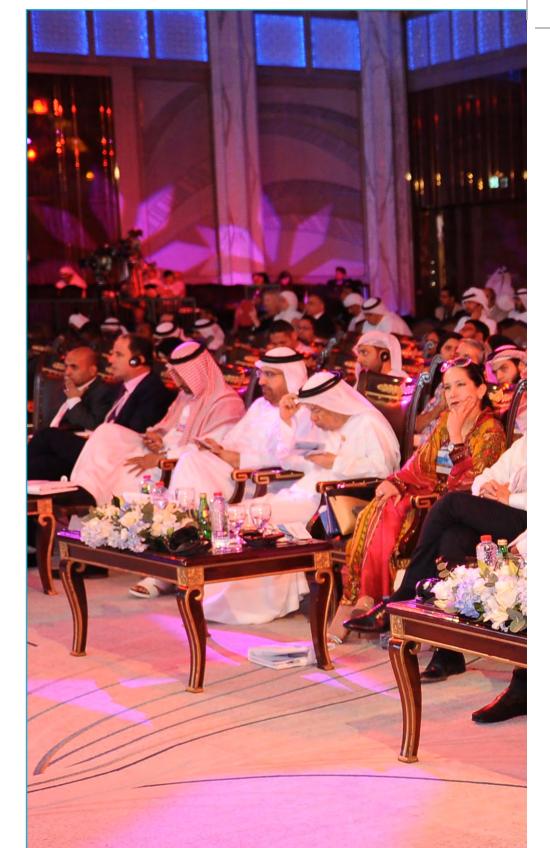
Moderator: Speaking of knowledge, I would like to say that the increasing phenomenon of Western hostility to Islam urged Omar Saif Ghobash, former Emirati Ambassador in Russia, to publish his messages to his fifteen-year old son Saif in the U.S. Foreign Affairs Magazine. He aimed at generalizing his message to him in order to help him to understand his identity in a correct way, and face the recent crises imposed on him. I recommend the audience to read this message because of its importance. This message includes valuable advice to young Muslims, and is entitled "How to find the rescue boat of austerity, originality and Islamophobia). Can you see the significance of this message?

The Knowledge Summer Summer Summer Summer Summer Summer Statement Statement

Tony Abbott: Definitely. If we look at a place like Dubai, it is clear that the environment is favourable to co-existing, and tolerance has become the prevailing feature in the city. Everyone works and lives in such an environment that does not exist in other countries in the world. This matter is not strange because all these values are derived from Islam, promoting co-existence and tolerance with others. This also urged the Egyptian president al-Sisi to launch his call form Al-Azhar for tolerance, co-existence among the followers of the three religions, and abandonment of extremism and rigorism, exactly as is mentioned in the message of the former Emirati Ambassador in Russia.



Moderator: Finally, I would like to show my sincere thanks and appreciation to Tony Abbott for this speech, his valuable comments and remarks. I also thank the honourable audience for listening and reacting. I wish you all to enjoy a lunch break for an hour.







Fourth Session

"Future Foresight – Against Ideological Extremism"



- Future Foresight Contributes to Tolerance and Intellectual and Cultural Openness
- Future Foresight is an intercultural bridge and a gateway for openness and communication
- Future Foresight is needed to do away with static ideas and present stereotypes

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The Knowledge Summer I

Speakers

Dr. Jawad Ahmed Anani Deputy Prime Minister for Economic Affairs

Ambassador Theodore H. Kattouf President & C.E.O. AMIDEAST

Professor Ahmed Ouzzi Moroccan Thinker and Researcher

Ann Morgan

U.K.-based writer, editor and author



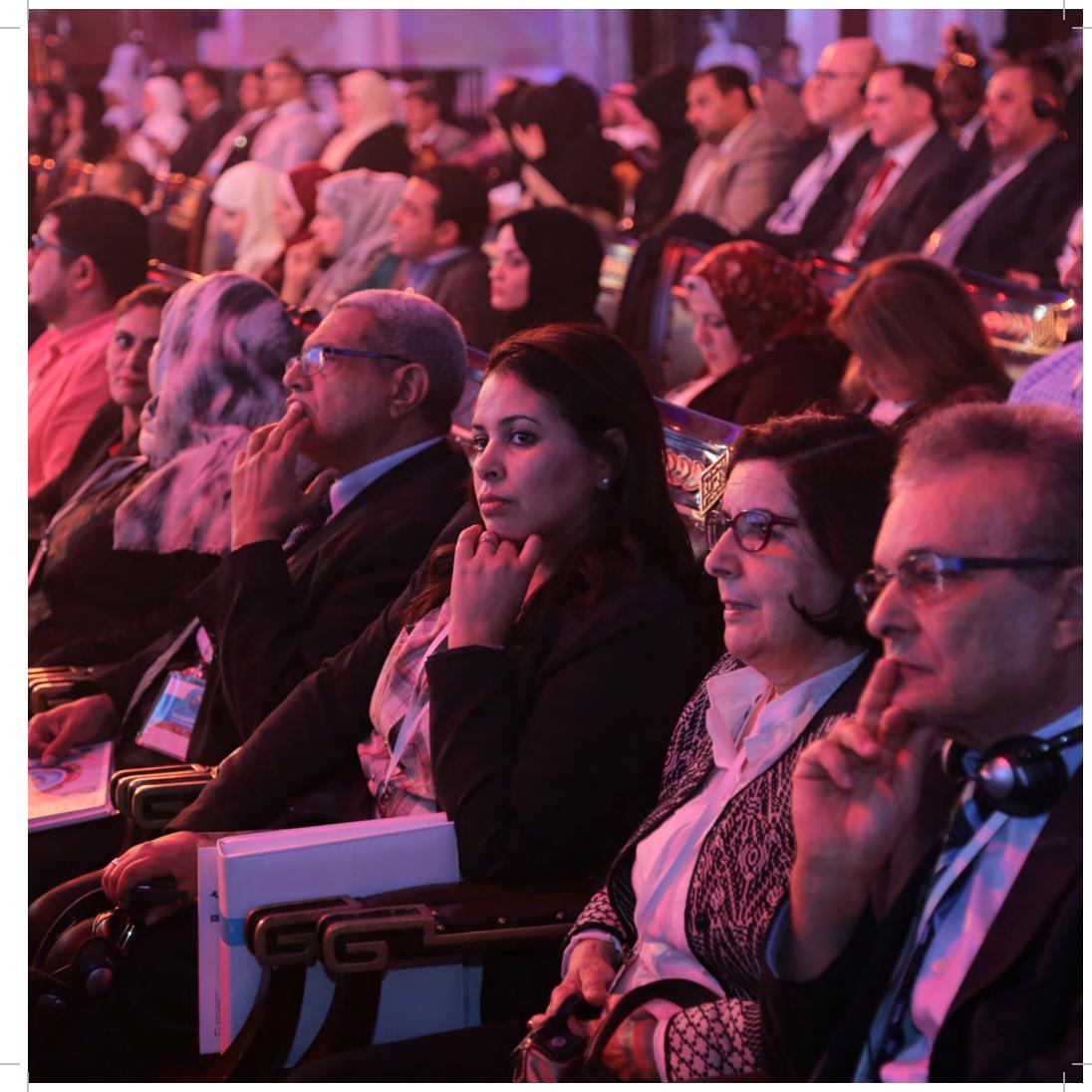
Dr. Sultan Mohammed Al-Nuaimi Faculty Member, Abu Dhabi University

Dr. Sultan Mohammed Al-Nuaimi is a faculty member at the Abu Dhabi University and holds a Ph.D. in Iranian Political Thought. He is an expert on Iranian affairs at Sky News Arabia. Dr. Al-Nuaimi participated in the committee tasked with preparing the curricula for the Emirates Diplomatic Academy, and is also a member of the Advisory Committee of the National Strategy for Youth Empowerment in the U.A.E. He presents a television show entitled "A Point of View" (Wijhat Nathar) broadcast on Abu Dhabi T.V.

Dr. Al-Nuaimi has delivered several lectures at the U.A.E. Ministry of Foreign Affairs, the National Defence College, and the Dubai Executive Council; and at various locations in the Kingdom of Bahrain.

He has published several books including Iranian Political Thought: Roots, Tributaries and Impacts; Iranian Presidential Elections: Effects and Results; and Political Currents and Forces in Iran: Contrastive Reading, and Seven Minutes in Private. He has also published a number of research papers, including "Language Usage in the Iranian Media Strategy." He has several published articles in Asharq Al Awsat and Al Ittihad newspapers.





The Knowledge Summer I



Prof. Ahmed Ouzzi

Moroccan Thinker and Researcher

Ambassador Theodore H. Kattouf

President & C.E.O. AMIDEAST

Professor of Higher Education and Scientific Research at the University of Mohamed V in Rabat.

Professor of Psychology and Sciences of Education, and Director of training and research in developmental psychology in Education.

Researcher interested in the issues of childhood, adolescence and youth. Visiting professor to many universities and Expert at international organizations interested in education, science and culture (UNESCO, ALECSO, ISESCO).

Organizes and oversees many of the formations in the preparation of teachers and trainers in many Arab and African countries.

Authored many contributions in scientific journals in the fields of Psychology and Education Sciences. Director and founder of the journal of the science of Education (quarterly periodical).

President of the Moroccan Association for the Study of Childhood.

A member of the Central team of the Arab Knowledge Report – 2010/2011.

Since 2003, Theodore Kattouf has been President and C.E.O. of AMIDEAST, a U.S. private non-profit organization that provides educational and training services in the Middle East and North Africa. His 13 years at the head of AMIDEAST have been marked by strong growth and diversification of youth programmes.

After four years in the U.S. Army, Ambassador Kattouf joined the U.S. Foreign Service in 1972. From 1973 to 1988, he served at embassies in several Middle Eastern countries including as Deputy Chief of Mission at four different embassies. From 1998 to2003, he was appointed Ambassador to the United Arab Emirates and subsequently to Syria.

Ambassador Kattouf is a graduate of the Pennsylvania State University and did mid-career graduate work at Princeton.



Dr. Jawad Anani

Deputy Prime Minister for Economic Affairs

Jawad Anani is a Jordanian economist and politician. After working for the Central Bank of Jordan in the 1960s and 1970s, he held high-ranking positions in the civil service. He has held several ministerial posts since 1979, including a four-year stint as Minister of Labour between 1980 and 1984. During the early 1990s, he held positions as Minister of State for Cabinet Affairs and Minister of Information, and was involved in the peace-process between Jordan and Israel. During the latter half of the decade, he was Deputy Prime Minister for Development Affairs, Foreign Minister and Chief of the Royal Court.

In 2012 Anani was made President of the Social and Economic Council, and has been appointed a member of the Senate several times, most recently in 2013, when he stepped down as President of the Social and Economic Council. Anani previously served in the Senate from 1993 to 2001. He is currently Deputy Prime Minister for Economic Affairs and Minister of State for Investment Affairs. He obtained a Ph.D. in Economy from the University of Georgia in the United States.



Ann Morgan

U.K.-based writer, editor and author

Author of two critically acclaimed books, Ann Morgan's first book, The World Between Two Covers: Reading the Globe, was inspired by her project to read a book from every country on Earth in 2012.

Taking the form of a blog, the quest brought Morgan into contact with readers, writers, translators and literary organisations around the planet. It obliged her to grapple with many of the issues surrounding the publication and circulation of texts, including censorship, translation and cultural identity. Through this, she experienced the transformative power of reading and the potential stories have to bridge cultural, temporal, political and religious divides.

Morgan has worked as a sub-editor for several newspapers and magazines, and has written on literature, education and international development for publications including The Guardian, The Financial Times, The Independent and the BBC Culture website. Her debut novel, the literary psychological drama Beside Myself, was published by Bloomsbury in January 2016. She has given a TED talk, and her literary journey has inspired and informed many personal and group ventures around the planet.





I would like to refer first to what Beckey Anderson mentioned regarding the message of Omar Ghobash, former Ambassador of the United Arab Emirates to Russia, regarding the phenomenon of Islamophobia in the West. This message matches in its core the opinion that says, "to fight extremism we have to face it ideologically, and not only with weapons, because it is an ideological and dogmatic battle". This is the real battle, a battle of ideas. To discuss this topic, let me introduce the speakers: Dr. Jawad Ahmed Anani, Jordanian Deputy Prime Minister and Minister of Industry and Trade, Mr. Theodore H. Kattouf, President & C.E.O. AMIDEAST, a diplomat, who served as U.S. Deputy Chief of Mission at four different embassies and was appointed Ambassador to the United Arab Emirates in 1998. In addition, we have Mr. Ahmed Ouzzi, Professor of Higher Education and Scientific Research at the University of Mohamed V in Morocco, and Ms Ann Morgan, U.K.-based writer.

Dr. Sultan Mohammed Al-Nuaimi



"Thanks to its leading role and position as an intellectual hub for discussing global issues, the U.A.E has been offering creative models and solutions to countries around the world."

say directly and clearly is that the future starts from the moment you finish the words you have just said, and extends into the future. The same for knowledge, which is a dynamic concept or process that does not stop at all. The philosopher John Locke said: "Knowledge is

the ability to choose between two positions that may be contradictory." The available knowledge helps us to finally come to the conclusion that we have chosen the right thing. When we look at the experiences that we have been through even in our Islamic world throughout history, we find that in the second Abbasid period we encountered many movements that were considered extremist terrorist movements at that time, such as the Hashashin movement, the Qaramite movement and other movements about which a lot was written. It was necessary to examine the circumstances that led to the emergence of such

Dr. Jawad Anani

In the name of Allah, the Most Gracious, the Most Merciful Thank you very much Doctor, and thanks to all those who have carried out this remarkable effort. The U.A.E. has become a beacon of intellectual pride, and it is safe to say that it has become one of the secure and stable countries discussing the affairs of countries that lack security and stability. Thanks to the U.A.E. in general, and to the Sheikh Mohammed Bin Rashid Al Maktoum Knowledge Foundation in particular for this trend. I am speaking here as a Jordanian official. What I would like to movements in order to prepare for them in the future. As you said, Doctor, what will happen if ISIS is eradicated militarily? There is no doubt that it will require a major security effort to confront its suicide operations and their intimidation of secured people everywhere. This is not the end of the problem as is wrongly believed. The negative knowledge and wrong ideas will turn out to be a practical effort against you, so you have to be fully prepared for the opposite thought. So, we are not facing a battle that will end in a matter of days; these terrorist movements in the Arab world will be militarily defeated soon, but the security risk will remain for five or six years. However, they will not be defeated intellectually and ideologically so easily, because they have created what I call the three dimensions: the first dimension is the concept of the framework; i.e., they created a framework for themselves. They said: The Arab world is underdeveloped, the regimes cannot provide services to their citizens, there is an unemployment, and there is poverty ... etc. They created this general framework from which they emerged.

The second dimension is the intellectual content; what is the intellectual content they offer to attract their target, youth, those young people who were marginalized whether they are poor or rich, marginalized by exclusion, so the opportunity is available to control them because they are far from the main stream. Modern technologies have helped them much in their recruitment, so we are facing this danger in the future. As we were taught in economics, the lack of information leads to the socalled emptiness, leading in turn to the disruption of the market. There are three scientists who won the Nobel Prize in economics because they wrote about 'information asymmetry' between the seller and the buyer. Who has the information and transforms it into knowledge, then converts knowledge into tangible concepts, is the one who will win the battle. Hence, we have to develop the intellectual content by which we fight those nations. They say: we want Khilafa, we ask: which Khilafa? They say: we want jihad, and we ask: which jihad? What is the difference between jihad, aggression and attacks on people? Is jihad killing monks, children, women and old people? We must evaluate this content.

Third dimension: channels, what channels do we use? We must take into account that our channels should not be traditional because there is a large technological gap between young people nowadays and the previous generation. Therefore, when we develop the thought and curriculum that we want to raise our children on, we must be aware that there are channels through which we can reach young people and they can deal with.

Without these three dimensions, I will not be able to fight terrorism in the future. So, I say: we have a great duty, and we have the huge project by which the Arab countries must unite together, in order to save themselves from these consequences. Each one of us is not in danger as long as he is away from his home. However, if the danger is in the house of one of us, the picture is completely different; there must be an integrated effort to confront the danger.



"I stop here at Dubai experience in establishing concepts and values of tolerance, ideological openness and peaceful co-existence between different sects and affiliations of the U.A.E. society"

Ladies and gentlemen, after a year and a half developing statistics and conducting surveys about the opinions of electors regarding the nomination of Donald Trump as a republican candidate at the latest U.S. presidency elections, in which he surprised everyone by becoming the president. There was a change in seeing the credibility, correctness and accuracy of the results published by these surveys to the target public audience, especially voters. If the failure of most surveys

Ambassador Theodore H. Kattouf

to predict the new president of the United States that took place last month was the way that it appeared to all of us, so it is not a surprise to see what happened in surveys that preceded the Brexit referendum. This matter leads us to wonder regarding the analysis about what happens in disturbed countries such as Syria and Iraq. We see the dominance of extremist and terrorist movements in these countries. This morning, we listened to experts' opinions regarding foresight issue, mechanism and used scenarios. However, I say that it is closer to interpretation, not foresights.

In my country, the United States, we believe that policy makers need to recognise and understand that a shortage of knowledge and understanding leads to ambiguity in understanding real situations and make them worse. Moreover, the Soviet invasion in Afghanistan resulted in an imbalance in world powers during the last decades. This invasion contributed to interventions of the NATO forces in some countries; Libya for example, after the deterioration of security. All these events and other ones around the world, especially in the Middle East, caused violence and extremism to spread in the region. In my opinion, when we are about to foresee, analyse and monitor results, we are careful to face potential future challenges. If we look today at Western societies, we will find that there are certain trends that have become clear to us. The Brexit referendum and the Trump election in the United States show that modern technology has led to some going back in terms of foresight and its results. Particularly with the working youth in these societies. They suffer from problems related to low wages and increase in unemployment levels, which makes them worry about their future.

It is wrong to attribute these problems to the increase of unawareness and racism. Both trends are spreading widely in the West. We can see these trends in liberal and democratic countries such as France, the Netherlands and Belgium. Yesterday we observed voting in Italy, and Trump raised the slogan of "America First". In addition, we find in several Western countries several movements and parties that request separation from the homeland, and independence so as to establish small countries. In this region of the world, we find that violence and terrorism waves hit countries such as Syria, Irag and Yemen. We find that the powers and effect of terrorist groups are increasing, such as ISIS. Even if these groups and organisations suffered from losses and defeat, as mentioned by H.E. the Jordanian Minister in his speech, this does not mean that problem of terrorism in the world is ended forever. This conflict is an ideological conflict at its core. At the same time, we found that conflict in Syria resulted in the emergence of the problem of refugees, who moved by millions to adjacent countries and some European countries, in the worst human crisis in history since the end of World War II. It is sufficient to know that half of the Syrian children, who escaped from the country, did not join schools and that they are deprived of the right to education. There are huge numbers of skilled youth in the region, who migrate to the West with their experiences and skills, escaping from unemployment and violence, or because the deterioration of the education level or depression, and losing hope in the future. These challenges are not easy to overcome, however, we should provide a decent livelihood and welfare to these young men. Finally, let me thank all of you.



"The role of the family is pivotal in inculcating citizenship values that have a significant effect in integrating the individual in his society, giving him a feeling of loyalty and making him willing to build it."

Please, let me go back to some ideas that I heard this morning, such as "The future affects the present", and I think changes in the present are enormous, however, educational institutions have not revised its roles; and I will focus on the family and the school. The role of father and mother has not got along with the developments that we live nowadays. Every person has two instincts, life and death. However, my question is what have we done to discipline and adapt these two instincts to modern developments? The real problem is that we begin to

Professor Ahmed Ouzzi

establish a family without being qualified to be fathers and mothers. The missing role of the family is a major factor of extremism that exists in the world. We do not adapt the individual, and do not raise him on cosmic national values. Moreover, there is a huge gap between what we learn in schools and in real life. There are some schools, which started to cancel educational curricula, and shifted to use developed scientific activities because life has developed. The most important thing to teach the individual is innovation, creativity and future foresight.







Ann Morgan

about integrating refugees, especially children, raising them in the culture of non-violence, and creating conditions and capabilities to integrate them in the societies where they have taken refuge"

Moderator: Ms Morgan, we look forward to hear of your experience through your books; how does reading make the intellectual convergence between the nations in the frame of future foresight? How can we solve the problem of the lack of education for the children of refugees? In addition, what is the best way to reach them to achieve this objective?

Ms Morgan: Nowadays, and every day, the world is witnessing enormous numbers of refugees,

who travel from one place to another for different reasons.

I believe that the traveling experience from one country to another enables them to exchange the ideas and experiences they have. In addition, I think this way to exchange and share ideas directly between refugees is considered better than in the efforts made by institutions and authorities concerned to achieve that objective. Therefore, this

direct method of communication and interaction between them also includes creativity in exchanging ideas and experiences. Especially that they have some freedom and flexibility to do that. This is the reason why sharing ideas and experiences between refugees using the stories or the knowledge they have, or personal experiences, can be an effective element, which enriches this experience. This could help in avoiding destructive ideas, and staying away from the extremism and the austerity that invade the countries of the region. Moreover, this participation in sharing experiences and knowledge between refugees helps a lot in obtaining valuable information about the places and regions where they come from. This results in forming a future vision about the tragedy of refugees, because if you want to have a concept of what is going to happen next; you should not put a concept for the future from your perspective only, but also from the perspectives formed by others".



Knowledge nmit 2016

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Day One

The Knowledge

Fifth Session

"Knowledge and the Future cities"



- Future cities: Their Foundations and Components: Their Pros and Cons.
- Shedding light on Dubai Government efforts in future foresight: SMART DUBAI.
- Smart cities and technological knowledge advancement
- 3D Printers for buildings/home.
- Smart Mobility: Self-driving cars and the Hyperloop.
- Role of the cities in knowledge economies.

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Speakers

H.E. Saeed Mohammad Ahmad Al Tayer Managing Director & C.E.O., Dubai Electricity & Water Authority (D.E.W.A.)

Dr. Aisha Butti Bin Bishr Director General of the Smart Dubai Office

Vivek Wadhwa Academic, Researcher, Writer, and Entrepreneur

Bibop G. Gresta Chairman & C.O.O., Hyperloop Transportation Technologies, Inc.

Dirk Ahlborn

C.E.O. of Hyperloop Transportation Technologies, Inc.

An expert in Smart City Strategy, Dr. Sed Saad is also a Strategy Advisor for Japanese and Dubai-based organizations. He was also Vice-President for M.E.N.A. (Smart Mobility/Smart Cities) at Mitsubishi Heavy Industries, where he initiated the first integrated Intelligent Transport Systems-Electric Vehicles project in the Middle East.

Given his academic and business experience in Japan, he brings an additional Global/Japanese perspective to the U.S. and to European schools of Smart City thinking. He aims to contribute to Dubai Smart City public policy and business strategy. His current research activities in Dubai/Japan are related to smart cities in space and futurist smart mobility.

In Dubai, he supervised 100+ strategic management capstone academic research on global smart cities since 2013. In Japan, he conducted research on Intelligent Infrastructure System Management, System Innovation/Partnership Models across and within Japanese High-Tech Industries.

He is three-time nominee of the Japanese Government's 21st Century Centre of Excellence (C.O.E.) research, and recognized by the Ogawa Telecommunication Foundation Award.

He holds an M.B.A. from M.I.T., M.P.A. from Harvard University, and a Ph.D. from Waseda University (Japan).



Dr. Sed Saad University Professor and Consultant in Innovation and Strategy





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H.E. Saeed Mohammad Ahmad Al Tayer

Managing Director & C.E.O., Dubai Electricity & Water Authority (D.E.W.A.)

H.E. Mr. Al Tayer has an overall experience of more than 31 years in the field of telecommunications, energy and water. Under his leadership, D.E.W.A. has achieved unprecedented successes, and has since 1992 become one of the most distinguished service organizations worldwide.

Mr. Al Tayer initiated the establishment of several successful companies, including the Emirates Central Cooling Systems Corporation (EMPOWER).

He is a member of the Dubai Executive Council and Chairman of the Infrastructure and Environment Committee, Vice Chairman of the Dubai Supreme Council of Energy (D.S.C.E.), Chairman of Dubai Smart City Office, Vice Chairman of Emirates Global Aluminium (E.G.A.), Vice Chairman of Emirates National Oil Company (E.N.O.C.), and Chairman of U.A.E. Water Aid (S.U.Q.I.A.) Board OF Trustees.

He received many prestigious awards including the "Middle East Champion of Energy" award, received at the World Green Economy Summit 2015 from the United Nations Development Programme (U.N.D.P.). On 18 May 2016, the U.N.D.P. appointed His Excellency as "U.N.D.P. National Goodwill Ambassador for Sustainable Development Goals". The Swiss Business Council, Dubai & Northern Emirates, awarded His Excellency the prestigious "Lord of Matterhorn Award".



Dr. Aisha Butti Bin Bishr

Director General of the Smart Dubai Office

Dr. Aisha Bin Bishr is the Director General of the Smart Dubai Office, the government entity charged with overseeing Dubai's citywide smart transformation, engaging with leadership in the public and private sector to make Dubai a global benchmark smart city.

With more than 20 years of experience in information, communication and technology (I.C.T.) development in public and government sectors, Dr. Aisha previously worked as Assistant Director General of the Executive Office of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, U.A.E. Vice President, Prime Minister and Ruler of Dubai.

Prior to that, Dr. Aisha worked in the Ministry of Labour as an Assistant Undersecretary for support services, responsible for developing and implementing strategic management, partnership development and change management policies.

Dr. Aisha Bin Bishr holds a Ph.D. in Management, Science, Technology and Innovation, and a Masters of Philosophy in Policy and Research on Engineering, Science and Technology from Manchester Business School. A Bachelor of Science (B.S.) in Applied Science from the Higher College of Technology, and a degree in Public Finance Management from Dubai School of Government.



Vivek Wadhwa

Academic, Researcher, Writer, and Entrepreneur

Vivek Wadhwa is a Fellow at Arthur & Toni Rembe Rock Centre for Corporate Governance, Stanford University; Director of Research at the Centre for Entrepreneurship and Research Commercialization at the Pratt School of Engineering, Duke University; and Distinguished Fellow at Singularity University. He has also been a senior research associate at the Labour and Work life Programme of Harvard Law School, a visiting scholar at the School of Information at UC-Berkeley, and a Distinguished Visiting Scholar at The Claus M. Halle Institute for Global Learning at Emory University. He is the author of The Immigrant Exodus: Why America Is Losing the Global Race to Capture Entrepreneurial Talentwhich was named by The Economist as Book of the Year in 2012, and Innovating Women: The Changing Face of Technology.

The research he oversees at Singularity University educates a select group of leaders about the exponentially advancing technologies that are soon going to change our world; such as, robotics, A.I., computing, synthetic biology, 3D printing, medicine, and Nano materials.

Forbes.com named Wadhwa a Leader of Tomorrow. He was named by Foreign Policy Magazine as Top 100 Global Thinkers in 2012. In 2013, TIME Magazine listed him as one of The 40 Most Influential Minds in Tech.





Bibop G. Gresta

Chairman & C.O.O., Hyperloop Transportation Technologies, Inc.

Bibop G. Gresta has earned worldwide acclaim as a digital media, cross platform technologies and finance expert. Mr. Gresta is regarded as nothing less than a specialist in mass market community building and project design.

Working in the fields of digital media and exponential technology, Mr. Gresta created the first video participative television format, and received much acclaim for MyCast, his proprietary content technology.

In 2012, Mr. Gresta relocated to the US, where he turned his energy to building Digital Magics SPA, serving as both the company president and venture partner. That same year, he created the awardwinning Yottio, Inc., a real-time video community that connects fans and viewers directly with media makers so they can participate in their favourite programmes. In 2015, he became C.O.O. of Hyperloop Transportation Technologies, Inc., where he coordinates a team of 520 professionals in 21 countries, all working to build the very first Hyperloop.

Dirk Ahlborn

C.E.O. of Hyperloop Transportation Technologies, Inc.

Dirk Ahlborn is the C.E.O. of Hyperloop Transportation Technologies, Inc. (H.T.T.) and the Founder and C.E.O. of JumpStarter Inc. Founded in 2013, H.T.T. designs and builds the most highly profitable, fastest, safest, and environmentally friendly transportation system for passengers and goods. H.T.T. utilizes Jump Starter's crowd-funding and crowd collaboration platform 'Jump Start Fund' and is thus able to leverage technology and a 480+ team of global experts to bring disruptive innovation to the traditional transportation industry. Hyperloop first gained public interest when entrepreneur Elon Musk published a white paper describing a futuristic mode of transport that would transport people from Los Angeles to San Francisco in about thirty minutes. Musk handed the concept to the public and Hyperloop Transportation Technologies rose to the challenge.



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University Professor and Consultant in Innovation and Strategy



Dr. Sed Saad

We will start our session with a major question: what is the city? In addition, by answering this question, we can ask another question: what is the shape of the future city? In this regard, please, let me call the main member speakers to proceed to the stage: H.E. Saeed Mohammad Ahmad Al Tayer, Managing Director & C.E.O., Dubai Electricity & Water Authority (D.E.W.A.), Dr. Aisha Butti Bin Bishr, Director General of the Smart Dubai Office, Vivek Wadhwa, Academic, Researcher, Writer, and Entrepreneur, Bibop G. Gresta, Chairman & C.O.O., Hyperloop Transportation Technologies, Inc., Dirk Ahlborn, C.E.O. of Hyperloop Transportation Technologies, Inc.

Going back to the question, what is meant by the future city? As we all know, we live in a technologybased society. When we talk about innovation, we should talk about innovation in future cities. We must ask ourselves: is technology a kind of innovation? Do means of transportation, as an example, have any relation with technological innovation? Does building smart cities have any relation with establishing partnerships with others? Alternatively, does it have something to do with innovation models in the business field? Moreover, how can we build and innovate business models? We are going to answer all these questions and others thanks to our speakers in this session, during which we will show a presentation. Moreover, we will dedicate 10 minutes to every speaker. Afterwards, we will open the debate with the audience. Please, let me begin with H.E. Saeed Mohammad Ahmad Al Tayer, Managing Director & C.E.O., Dubai Electricity & Water Authority (D.E.W.A.); please, proceed.

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H.E. Saeed Al Tayer

Today, we will review the green project in Dubai, as His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Ruler of Dubai, announced Dubai's project for clean energy. Before 2050, 70% of the energy will be clean. The Mohammed Bin Rashid Al Maktoum Solar Park will provide the city with 4000 megawatts (M.W.), for the value of 50 billion dirhams. This will significantly reduce carbon emissions. The new building (Al-Sheraa) in Al Jadaf: the building is designed to accommodate 5,000 employees. It has modern and smart devices linked to Dubai metro. It has no carbon emissions. In addition, it will work on exporting and importing electricity from the grid. Moreover, our future investments amount to 65 billion dirhams, and we have another project that will produce 3500 M.W. In addition to a project in Hatta. Our visionary leadership has a vision of the future, and we endeavour to implement the plan of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Ruler of Dubai. In addition, we implement Dubai's vision as a smart, linked and technology-based city to change it into a smart city, create a happy life for citizens and attract investments and tourists. In the frame of our endeavours to turn Dubai into a smart city, we have launched several initiatives, including Shams Dubai with 100 M.W., to transfer the surplus of energy to the grid. Moreover, there is the Green Charger initiative that is spreading all over the Emirate. We have a strong infrastructure that includes 11 programmes to support the smart grid, and we care about productivity and the reduction of loss by 2030. Our vision is to be a sustainable and world-class innovative establishment. Losses are 3.3 and we expect to reduce them this year, whereas it is globally 6 or 7%. By 2020, we would have 1000 M.W. of green energy, and next year we will inaugurate our Photovoltaic (P.V.) Project. His Highness Sheikh Mohammed Bin Rashid Al Maktoum, U.A.E. Vice President, Prime Minister and

Ruler of Dubai, has launched the initiative of the 'Green Economy' with the cooperation with the United Nations. We expect the participation of 190 countries and we will focus on civil societies. The Green Economy fund will be established by a capital of 100 billion dirhams. In addition to the diversity of energy resources, we rely 100% on gas.

Our visionary leadership has a vision for the future, making



«The vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum aims at making clean energy participate for 75% of total energy in Dubai. Most of this energy will be solar energy in addition to a number of green projects».



the city more sustainable and smart, in line with the vision of the country in 2021. We exert our efforts to achieve the vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, U.A.E. Vice President, Prime Minister and Ruler of Dubai, and the plan of Dubai 2021, the national innovation strategy and Dubai's innovation plan to make Dubai the most innovative country and turn it into a smart, sustainable, integrated and connected city. According to the vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Dubai is the city of the future, the smart city that makes all facilities and services available in an accurate and connected electronic manner. Technology constitutes a major aspect to turn cities into smart cities. In addition, technological innovations that are used effectively help in enriching a happy-life experience

> for locals and inhabitants. One of the most significant factors in the growth and development of smart cities is the close cooperation with stakeholders and urban development bodies, or telecommunication, transportation, education, health and other service providers from the government and private sectors. There is a need to build capacities of the society in terms of dealing with modern technologies in an effective and efficient way, especially in light of the rapid development.

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I am very pleased to be with you today in this special ceremony, where leaders of knowledge come together under one umbrella to discuss knowledge concepts and the concepts that will take us to the future. I will tell you quickly what smart cities are. Actually, today there is no unified definition of the smart city concept. These cities had a challenge and tried to solve such challenge through various information technologies. However, we, in Dubai, have another story. His Highness Sheikh Mohammed Bin Rashid Al Maktoum, U.A.E. Vice President, Prime Minister and Ruler of Dubai, led our story when he announced that the objective today is to make people happy. Therefore, we enrolled a new concept in the management of cities; people are the centre of city services, whether government or non-government services. This directive is shown in four aspects: providing efficient, easy, secure, and rich experiences. Within three years, we should provide 100 initiatives and 1000 smart services. We have gone most of the way in areas of energy, transportation and government services. In addition, we will focus on smart economy and smart life sector, because we are preceding many countries in the world in other sectors. We all should integrate with all sectors to create smart cities, because this matter cannot be achieved with one group, establishment or sector. Moreover, we cannot talk about smart cities without focusing on data and its abundance. Therefore, from day one of launching the initiative, the data section was one of the most important projects that we worked on. His Highness Sheikh Mohammed Bin Rashid Al Maktoum has called for a knowledge economy since 2001, and now the major currency in a knowledge economy is data. Dear attendees, in previous sessions they were speaking about how information abundance made it available to individuals to defend themselves,

their ideas and cities. Today, we launch this platform, which enables us to create knowledge and wisdom. On October 2015, His Highness Sheikh Mohammed Bin Rashid Al Maktoum, U.A.E. Vice President, Prime Minister and Ruler of Dubai, launched the Data Law. The law is distinguished; it did not focus only on open data for all countries of the world that claim the data, however, the most important thing is sharing our data between government establishments.



«Every city adopted its own method in following smartness in its applications. Smart city is the city that provide smart, happy and efficient experience to the inhabitants of that city.»

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You all know how difficult to obtain data in your sectors, through which we serve inhabitants, developers, youth and entrepreneurs; we exert efforts to get data from companies. Moreover, we build our own strategy and vision, and become partners with some companies in order to live the experience. We were able to develop a secure platform through Dubai Electronic Security Centre. It is impossible to hack this platform; it provides easy sharing and protects open data. In 2014, His Highness Sheikh Mohammed Bin Rashid Al Maktoum promoted a directive to get citizens' opinions using their mobile phones to know how happy they are regarding easy procedures and an easy life. We have reached 89% of happiness level. You can see that all new technological programmes are easy, and can be easily downloaded. However, we need one platform for the government

> to address and discuss with the citizens. In addition, the government procedures can be finalized through this platform, such as, formal documents, driving licenses and other documents. Moreover, through this platform we can obtain electronic help to establish business projects. You can log on to the system in order to establish a project in U.A.E. with Indian or Foreign partnership, which aims at attracting 27 countries and involves them through technology.

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"Technologies that can be used in smart cities vary from drones to Hyperloop technology for transportation and 3D printing, etc."

Thank you all, the main objective or dream of this conference is building smart cities to facilitate livelihoods and life for people in cities, and solve the problems of humanity. As you see in the presentation, the figure here shows the performance of technology, and how it works while expanding rapidly and increasingly. In the last 100 years, we saw how several aspects of progress been achieved thanks to technology and its development in all fields, including medicine. Now, we have developed devices

Vivek Wadhwa

that provide important data in this regard. When these data are available, we use artificial intelligence to analyse them, such as learning machines, which provide such information about our health status and the performance of our body functions. In addition, we have now experts in artificial intelligence, who work in the medical field. Moreover, medications in the next years will become different from today. We will not have the same way as we have today to diagnose illness. Other more developed methods will be invented to diagnose and analyse everything. starting from DNA, microbe analysis, medical history and everything related to our health status. This is the way to be used in the near future in the medical field. By 2020, we will have science fiction; the United States has already started to create and innovate with the so-called "The Six Million Dollar Man", the potential state of man in the near future. This man is characterized with super powers in terms of thinking, strength, intelligence and other characteristics, in addition to creating a super woman with the same characteristics. This is what technology can provide us with in the coming years. There is something else, technological development will include communication devices that we carry while moving from one place to another. Future devices will be more developed and powerful with 40 multiples comparing to the performance and accuracy of recent communication devices. However, currently, it is not exportable outside the United States.

Therefore, what do we mean by all that? This means, we can build smart cities after knowing how these cities are going to work in the future, based on continuous technological progress. Smart cities will no more cost billions of dollars; the highest cost is in the very sensitive and accurate devices, which have become available nowadays, and can be connected and linked with Wi-Fi or mobile phone networks. After that, it can be uploaded to the cloud network or other devices that use artificial intelligence every second. We can build these cities and supply them with all devices and elements looking like science fiction in few years. We also forget robots and the magnificent development that is going to take place in this area in the near future. In the next ten years, we will be able to build robots that provide us with useful services in several fields for a moderate economic cost. There is also another important thing, which occurred in the last two or three years in the United States, China and some regions of Middle East; robots could be used in factories. This resulted in taking away a significant advantage from China; the cheap cost of its products. Robots now implement this issue as they have the same human capabilities in the production field. Therefore, we can say that Dubai can be the main manufacturing centre for this whole region. Especially, it has features and advantages that complete this issue, including distinctive geographic location, an advanced infrastructure and human resources. This qualifies Dubai to play this role, depending on robots as well. A huge centre for building robots can be built here in Dubai or Abu Dhabi, and can export these robots to the whole world, based on technology. For the automobile field, we will soon see cars on the roads without drivers, which mainly depends on advanced driving devices and technologies.

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This is going to happen in the next few years. Maybe

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two or three years. The speed of these cars will be 200 miles per hour. In addition, the technological development will include conveyance services to big restaurants around the world within the coming five years. This progress will extend to include other areas of our life, such as childbirth, printing papers, planting some kinds of plants and other areas. This progress will also apply to the virtual world on internet networks and websites. It will become easy to meet people in this world. Energy is one of the fields that will witness a huge change in the future. Especially for Middle East countries, solar energy will replace oil, because the importance of oil will decrease compared to solar energy. This issue needs to start the diversification of oil-based economies in this region. It is predicted that the barrel of oil will retreat to be almost 20 dollars. This development will also include health care, woman and child health and other areas of interest.

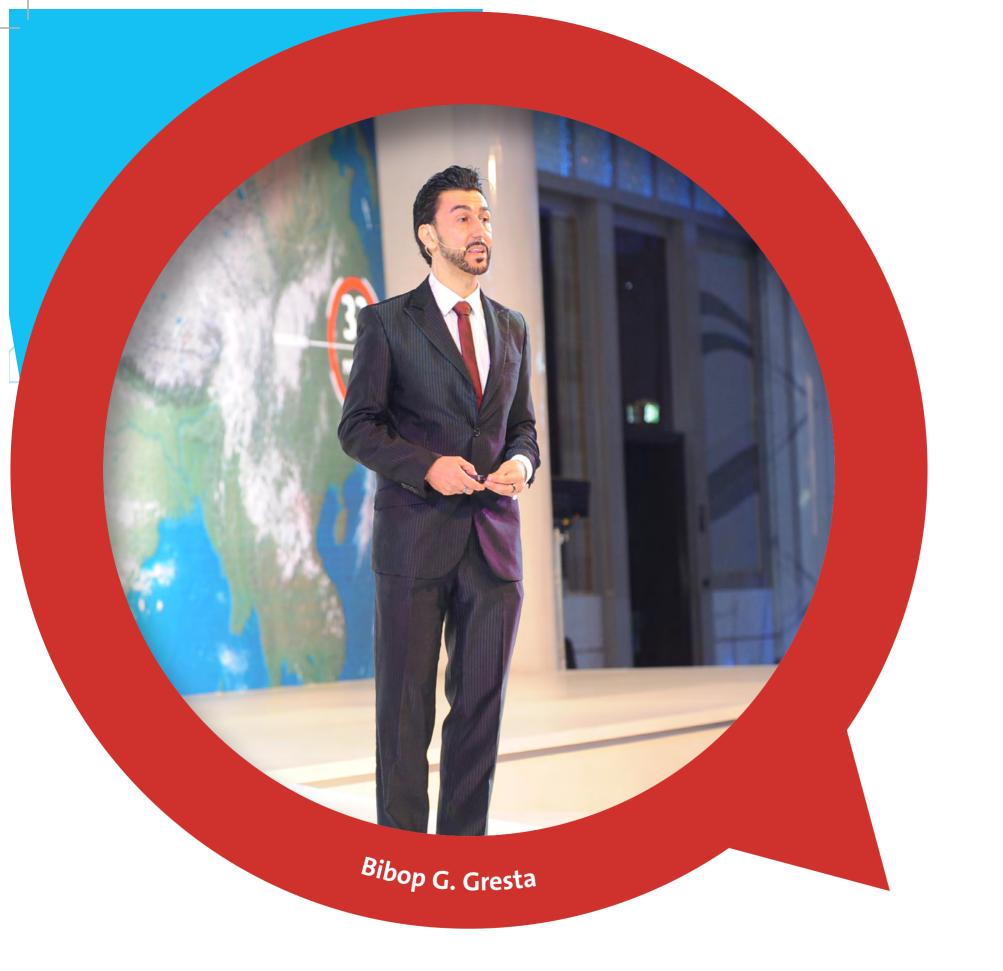






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Does anyone know the meaning of "Hyperloop"? You can travel with very high speed through a tube. We have worked for a long time with this government to know what the suitable thing for this region is, and what the bad thing in Dubai traffic is. If you think, Dubai is bad, so you have never travelled to China. They are specialized in solving traffic jam problems. Traffic jam steals our life; we are stuck here for a minute and for an hour there, and life goes on. What worries me actually is that there is no metro system in the whole world. We thought to solve the problem of the shortage of qualified metro network. Therefore, we had the idea to establish new grids on the existing railways. We do not need to go with maximum speed all the

time; however, we can use the existing routes, and reduce the speed on them, or build another specific one with a vacuum tube and a capsule that can travel with high speed. Each capsule can bear the load of 28 to 40 persons every 30 seconds. We hope to convey 3700 persons per hour, i.e. 67 thousand persons per day and 24 million persons per year. We can totally change the shape of air flights from Los



"With the great technological development in robots manufacturing, there will be great demand to manufacture them. In addition, it will have effective and strong existence in the future."

Angeles to San Francisco four times. Imagine, if you put seven tubes in the same route; then you can convey billion persons in no time. Moreover, it is very safe, environment-friendly and causes no accidents. Once again, we have to make sure that the system is very safe. If we look at means of transportation, aviation accidents for example occur almost every 3 years and we think this is not acceptable. We put people in a completely safe tube and we can stop it in stations which are 5-kilometers away from each other. Moreover, in case of emergency, we can stop the capsule in 5.6 seconds, in order to protect people lives. Safety concept is to travel with the speed of sound, but at the same time, you can stop the

> capsule in seconds. Better than that, you can build this system on any existing infrastructure. We seek to build the Hyperloop grid all over the world; we conduct talks with 20 countries around the world to apply this experiment. We are proud to be the company that initiated this project with the working companies in the region. Moreover, we are pleased to announce that we signed a contract with Abu Dhabi government to build a line for this project from Abu Dhabi to Al Ain.

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Travelling at the speed of sound looks amazing, does not it? Does any one in the attendance here has an idea about Hyperloop? All right, now we will play a video tape, which gives an idea about Hyperloop Transportation Traffic movement looks very bad in Dubai, which is

Traffic movement looks very bad in Dubai, which is crowded with vehicles of all types. We have long been working with the government here to find a solution to congestion in the city. However, traffic here in Dubai is better than in other countries in the world, such as the Chinese capital Beijing. Congestion there is continuous, 24-hour a day, almost every day. To face the crisis that we all live, resulting from this situation, we had to find an idea or project to put an end to this crisis, and that was the solution or the way out that we found.

Dirk: Therefore, if we go back a little bit, in 2013, we find that the solution lies in a technology that is always available to us. Nevertheless, we always focus on economic feasibility for any project and not on the technical or technological

> feasibility behind that project. I was wondering all the time why almost in the entire world there is no metro system or grid that can be considered economically comfortable. All projects of subways without exceptions suffer great losses. Even in New York City, where we can find the biggest subway grid in the world, the government loses 2.2 billion dollars each year.

> Therefore, the solution for this problem lies in Hyperloop



not it? Does any one in the attendance here has an idea about Hyperloop? All right, now we will play a video tape, which gives an idea about Hyperloop Transportation Technologies, Inc. and its ambitious project regarding travelling with the speed of sound in the foresight future. I hope you enjoy watching the tape. The tape shows pictures and scenes of the future of travelling, at the speed of sound, in the next few years. Man will be able to travel through virtual tubes or capsules as shown in the pictures. These capsules, travel capsules, are put inside tubes and moves with enormous speed that is equivalent to the speed of sound. The tape provides an idea about Hyperloop Transportation Technologies, Inc. the owner of the project, how the company innovated the project and other details about the project. In addition, in the tape, the two principles the company talks about

are the implementation mechanism of the project and the huge number of scientists, technicians and engineers, who participated in the project from well-known global establishments and companies, such as NASA Agency, Boeing Company, Tesla, SpaceX, and other companies in the world. Moreover, the tape shows comments made by speakers from some countries such as India and the United States, as the company intends



"Hyperloop technology will become more significant when planning to design smart cities, as it will have a remarkable major role in facilitating the movement of individuals and goods."

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The Knowledge Summing

Transportation Technologies, Inc., that can completely change this situation. From the mere technical point of view, the company's project meaning using capsules to transfer passengers in a tube in the near future seems somewhat similar to an ordinary train. The capsule train is put inside a huge tube. This train is faster than ordinary trains, and uses less fuel. Thus, we adhered to rules and regulations related to preserve the environment in this project, as our focus is on solar energy and other clean sources of energy.

Bibop G. Gresta: We gave a priority to study different models and designs as to fuel in the project, especially for crowded cities with high population. We took into account all elements related to success of the project, such as studying the infrastructure and its efficiency, in addition to demographic factors and determined routes for moving capsule trains inside the tube, and its types, besides the passengers' capacity. A train moves almost every 30 seconds. In addition, the speed factor in addition to departure and arrival time, depending on the route taken by every tube. We targeted the transfer of 700 passengers per hour, and eventually we reach 24 million passengers on a yearly basis. Moreover, we were keen on implementing the project based on sustainability, environment preservation, and security and safety factors. In addition, we paid attention to making stations of capsule trains comfortable, and providing them with all means of ventilation and entertainment, so they are air-conditioned, and designed according to the latest global levels.

Dirk: Now, we have the opportunity to reinvent and innovate our means of transportation easily, in a comfortable, quicker and safer manner. For us, it is not only a matter of creating a capsule to be put inside a tube to convey passengers, but also to develop and innovate something for making it comfortable and easy to use, and help in solving congestion in the world. This is the main objective and real significance of our project. However, the question that arises now is how does it look like inside the capsule? What is the position of the passengers inside the capsule? All right, the psychological side is very important in the project. Imagine that you are in the capsule right now; you will find virtual windows designed and created so as to look like real ones. Through these windows, the passenger feels that he is looking through it; however, they are virtual. (Now, you are watching pictures of the virtual windows, through which we can see scenes and snapshots of natural views, global cities and landmarks.) Bibop G. Gresta: It is very important to pay attention to the safety factor in a passengers' transport project, inside a capsule; and we did that, especially in the light of statistics of traffic and road victims all over the world nowadays. When you look at what happens today with means of transportation, whether in the air, on land, by sea or other means, you will find some risks even if less than before. Safety factors have become better nowadays. Every couple of years a catastrophic aviation disaster may occur due to the fall of an aeroplane, and this is unacceptable anyway. However, for our project,



the passenger is safe and protected because he is in a capsule designed in a way which provides safety and protection to the people inside it. Moreover, in case of emergencies, it is possible to stop the capsule within approximately 6.4 seconds. Safety factor is top priority in the project, and we gave maximum priority to preserving the lives of passengers. The capsule can be stopped immediately, and passengers can be evacuated and moved from emergency doors within a few seconds.

To conclude, we should mention that Hyperloop Transportation Technologies, Inc. is proud to hire in this project elite technicians, engineers and scientists with global capabilities and experiences. We had leadership in launching this project in 2013, and now we have succeeded to enter into partnerships and agreements to implement the project in 23 countries all over the world. In addition, I am pleased to announce that we signed an agreement with Abu Dhabi government, in order to implement the project of passenger transfer through the capsule train between Abu Dhabi and Al Ain. In the next two months, we will announce more details about this agreement. Moreover, we welcome cooperation and partnership with competent authorities and companies in this region. I would like to end my speech with a Chinese word of wisdom that says "Those who see the impossibility of doing a work; they should not interrupt those who are achieving that work."

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The Session

Knowledge and the Future Cities



Moderator: Now, it is time to receive questions of the attendance to be answered by the major speakers. If someone in the audience would like to ask a question, please, proceed.

Question: I feel proud to be part of what I can describe as the magnificent Dubai city, that embraces all nationalities of the world that work here. The global city that always looks forward a better future. I, myself, work in the technology field, as I am an international artist; however, I want to stop on the subject of happiness because it is very important matter. I believe that the word happiness implies a very deep meaning or sense. Moreover, I see that happiness is present in the areas of technology, health, education and other areas; the sense of happiness belongs more in art, where I work and belong. My question is: Is this feeling of happiness limited to the scope of Dubai city, to its locals and inhabitants, or can it be extended outside the borders of the city and wherever man travels? Thank you all.

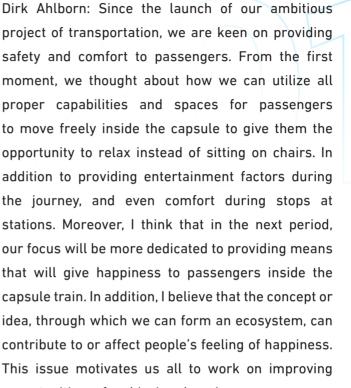


Her Eminence Dr. Aisha: Thanks dear for your question. I would like to say that the concept of happiness is not necessarily limited to borders or scope of our city. What we work on and endeavour here in Dubai is that happiness is achievable and even a measurable thing for people. We seek also to let people know the meaning of happiness from a scientific perspective and not a philosophical one. All over time, philosophers have not been able to provide a specific definition of happiness. Because my feeling of happiness may be different from yours, Dr. Sed's or that of other individuals. Happiness is relative, and differs according to the person. In addition, it is difficult to be very accurate as we have here in Dubai more than 200 nationalities from the whole world. Therefore, we need to make our citizens feel happiness; this is why our work agenda in Dubai includes significant keenness to fulfil the needs and wishes of citizens. This does not apply on only Emiratis, but also all working nationalities in Dubai. To achieve this objective, we have developed a working frame in which we focus on achieving different kinds of needs, whether entertainment, health, educational or other needs, besides trying to achieve all these needs, according to nationalities, ages, tendencies and interests. I would like to add that what makes me happy as a young woman might be different from my elderly happy mother. Moreover, the happiness of the Emirati citizen may differ from that one of the Chinese citizen, for example. Therefore, as I opportunities of achieving happiness. mentioned before, the matter is relative. In light of that, we endeavour to explore the wishes and needs that make our citizens happy. Then, we work

on developing amendments in our agenda system to achieve these needs and wishes by measuring trends and wishes, using measurements and individuals' surveys, and following up the opinions and suggestions of people through the social media to know things that make them happy. Through this simple system, we can recognize the needs of people to answer them. However, I cannot promise you that

the people who leave Dubai will be able to find the

same happiness that they found here elsewhere.



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Vivek Wadhwa: I agree with Dr. Aisha regarding the necessity of people participating in all aspects of life in future smart cities. I see that the major point here is people interaction with the government to solve their problems and fulfil their needs, in addition to necessary participation of business

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organizers and junior contractors in this regard. Let us take an example of that; what occurred and we all saw here regarding the great achievement of Hyperloop Company in the area of passengers' transport technologies, shown in video some minutes ago. Our friend Bibop had a vision of the future with his co-founder partner, and he managed to achieve it on the ground. This is what young investors should learn; they should also know, and be educated regarding development areas, available potentials and funding opportunities. You have provided them with all opportunities, and they knew all challenges and problems to pave the way to their role in cooperating with the government and concerned bodies to implement their plans and projects.



Her Eminence Dr. Aisha: This is exactly what we are doing today. Through our websites and online platforms, young investors and business developers can log on and obtain all data they need, and know problems, challenges and obstacles in the city, in addition to other information. Probably, they have good ideas that can be useful in overcoming a certain problem in an area of the city. This what urged His Highness Sheikh Mohammed Bin Rashid Al Maktoum to launch his initiative regarding Future Accelerators, through which we can link with all government educational, health and police authorities and other government bodies that open communication channels with investors, and invite them to invest in projects and find solutions for existing obstacles in the city.



Moderator: Professor, please, let me ask you an academic question: how can we link technological innovations, knowledge and future cities?



Vivek Wadhwa: The matter here is not easy; however, what I actually do is focusing on the huge fortune of the Muslim world, which can be invested in building, development, progress and work for finding solutions for technological problems, not only in the U.A.E., but also in the Middle East region and in the entire Muslim world. I see this matter possible if we make good investment in areas of innovation, knowledge and care and the improvement of education. All these issues shall open new horizons for progress in areas such as technological manufacturing, and the production of space materials and equipment. Moreover, encouraging companies throughout the region to come here, participate in building useful projects, and utilize modern infrastructure here. In a word, I see that it is very possible to reinvent and form the entire region based on all these factors.



Her Eminence Dr. Aisha: All these factors are available now, and we had all these basic elements long ago. In addition, here in Dubai we have many economic free zones and other cities. These zones have all facilities and services, which I found and witnessed recently after my visit to one of these zones. These zones have future accelerators and applications to provide resolutions for several matters, such as the information provided to those Muslims, who want to perform rituals of Hajj and Umra, and other solutions in different fields. Therefore, we can say that today we do all that in Dubai to make this city a pivotal location in the Middle East.

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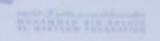
Moderator: As a conclusion, I would like to thank the speakers of the committee members and the audience. In addition, I would like to thank all of you for this positive participation, and the big interaction shown in this session. ed as Roshid I'm Global mitiotivan

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معرفة 2016

Day Two

First session

The future of reading in the Arab world (Arab Reading Index results)



- The Arab World Reading Reality according to international indices
- The Importance of the Arab Reading Index
- A look at the Arab Reading Index results

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The Knowledge

The Knowledge Summit

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Speakers

Speakers:

• H.E. Jamal Bin Huwaireb Managing Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation

• Dr. Hany Torky

Arab Knowledge Project Manager and Chief Technical Advisor, Arab Knowledge Project, United Nations Development Programme

• Dr. Najoua Ghriss

Professor at the Higher Institute of Education and Continuous Training in Tunisia

The Knowledge In the Knowledge







H.E. Jamal Bin Huwaireb

Managing Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation

H.E. Jamal Bin Huwaireb serves as Cultural Advisor to the Government of Dubai. Since May 2017, he has also been serving as Managing Director of the Mohammed Bin Rashid Al Maktoum Foundation, as per the directive of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai. He is the Vice Chairman of the Board of Trustees and Secretary General of the Mohammed Bin Rashid Al Maktoum Knowledge Award.

A UAE national historian and a pioneering man of letters, H.E. Bin Huwaireb is acclaimed for chronicling the cultural and creative movement in Dubai as well as the wider GCC region. A prolific writer and novelist documenting Arab and Islamic heritage, he presents the popular TV show 'Al Rawi' (The Narrator) on Dubai TV. The historical and literary show spotlights public figures that have positively impacted life in Dubai and UAE in particular and the region in general. Bin Huwaireb is one of the active literary elements on the local and regional culture landscape. He made more important cultural contributions and achievements. Besides, he made some historical works in general and in the history of the Gulf in particular.

Dr. Hany Torky

Arab Knowledge Project Manager and Chief

Technical Advisor, Arab Knowledge Project, United Nations Development Programme

Dr. Hany is currently the Arab Knowledge Project Manager and Chief Technical Advisor of the Arab Knowledge Project (AKP), United Nations Development Programme. Hany holds a PhD in Applied Statistics from Alexandria University. Prior to joining the Arab Knowledge Project in 2010, Hany was a lecturer at Alexandria University. He has around 20 years of experience in the areas of Statistics and Knowledge for Development.

Hany is currently the Chief Technical Advisor of the Arab Knowledge Project (AKP), which is one of the very few credible initiatives on 'knowledge' and 'development' in the Arab region.

He has led a survey on around 5,800 sampled school students from four Arab countries: UAE, Jordan, Morocco and Yemen in the preparation for the Arab Knowledge Report 2010/2011, another survey on around 5,500 sampled university students from four Arab countries: UAE, Jordan, Morocco and Tunisia in the preparation for the Arab Knowledge Report 2014.

He has also overseen the organization of workshops at the UNESCO headquarters, the University of Oxford and the United Nations Headquarters.

Areas of Expertise include providing guidance and advisory services and delivering lectures on knowledge issues; supervising research and dissemination of research findings, statistical analysis, building indices and modelling and simulation. Professor at the Higher Institute of Education and Continuous Training in Tunisia

Najoua Ghriss

Professor Ghriss holds a Ph.D in Educational Sciences jointly from the University of Tunisia and the University of Louvain-La-Neuve Belgium. In addition to her occupation as a University Teacher at University of Tunisia, Dr. Grhiss is a Research associate at the National Centre for Pedagogical Innovation and Education Research in Tunisia. She is a member of the Tunisian Association of the Academic Pedagogy.



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In the name of God, Most Gracious, Most Merciful Ladies and Gentlemen

Honourable Attends

At the beginning, I welcome you all to this session, in which we will discuss the details of the Arab Reading Index results, the first initiative of its kind in the region that launched by the Mohammed Bin Rashid Al Maktoum Knowledge Foundation in cooperation with the United Nations Development Program (UNDP), to work as an objective tool monitoring the reading status in the Arab world in scientific and professional manner based on accurate facts and statistics. The Arab Reading Index aims at keeping abreast of knowledge initiatives in the Arab region, determining the impact of reading in societies, defining the concepts of reading as well as measuring the Arab position on the map

of reading and the levels of cultural development in the region. Index Project reflects UAE directions and its interest in the concept of reading as a fundamental mean to acquire knowledge, enrich the principles of innovation in the community, and establish intellectual generations able to produce, transfer and area, headed by the declaration of His Highness Sheikh Khalifa Bin Zaved Al Nahyan, President of the

«United Arab Emirates is pioneer in launching reading initiatives, headed by the declaration of His Highness Sheikh Khalifa Bin disseminate knowledge. UAE was Zayed Al Nahyan, President of the behind lunching initiatives in this UAE, may God save and bless him, that 2016 is the year of reading and launching the national strategy of reading.»

of reading and launching the national strategy of reading. This is besides the Reading Challenge Project, an important and creative project launched by His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President, Prime Minister, Ruler of Dubai; to encourage reading among pupils in the Arab world; resulting in amazing outcomes proved that Read Nation is reading.

Today, my brother, Hany Torky, Chief Technical Advisor, Arab Knowledge Project, presents you a detailed explanation of this leading project, its working mechanisms and methodologies. The results have been drawn from a field survey that involved more than 148,000 people from all countries of the Arab world and all categories. We hope that Arab Reading Index results contribute to determine

> the levels of cultural development in the region and its development requirements. In addition, it shall constitute а comprehensive evidence to officials and decision makers when developing the plans and strategies in this field. We add the role of publishing houses that do not know the number of the readers in the Arab world. Therefore, we are now printing 500,000 copies, and there are hundreds of thousands of Arabs that require reading and books. Especially, Arab world











countries that lack specialized studies of reading which constitute the basis of knowledge needed for the march of advancement and development. Thank you.

Moderator: Mr. Jamal, your Excellency insist since the beginning of this year that these numbers are incorrect, I want to know why this the number? In addition, why these figures are low for the Arab citizen and very high for the citizen outside the Arab world?

H.E. Jamal Bin Huwaireb: Thank you for this very important question, and I am asking the question to Attendees: Who agrees that Arabs read only a guarter of a page per year? Please raise your hand. Just one who opposes this view? That is the right. I am just like you; I was participating in forums and TV interviews, and when I heard this result, I was frustrated. They say the Arabs read six minutes a year only! How was it measured? In addition, what is the criteria and sources from which this information was taken? All newspapers, magazines, televisions and research centres greed on that, not in the Arab world only; but outside it also. I spoke with foreigners at the London Fair and Frankfurt Fair, and they all say, "You in Arab world read only six minutes a year." In addition, we repeat the information without knowing its source; do you know who the source of this information is? There is no source. Then when I asked Dr. Hany to look for the main source of this information, he said, "There is no source." However, this information was mentioned

only in a book or study prepared in 2011 and spread in the Arab world. Arabs become very frustrated when hearing these figures, so we started to launch Arab Reading Index within the Arab Knowledge Project. I would like to thank all those who are involved in this project, because they implemented their tasks in a record time, and I would like to thank everyone who participated in the questionnaire. How many respondents participated in the guestionnaire? The total number of participants was about 160000 persons, 12000 persons of them were excluded due to the procedures of validating and checking the guestionnaires. Therefore, the number of participants is approximately 148000 persons, and the questionnaires do not reach this limit, but we have been keen on engaging persons from all the Arab countries, including the Comoros, Somalia and Djibouti, which participated in the questionnaire. As well as the countries at war, such as Yemen, Syria and others participated in the questionnaire, and the state under the occupation "Palestine" participated in the questionnaire. In addition, the questionnaire resulted in information that is completely contrary to what was known in the past, and we have evidences, who can reject the results of 148000 participants? How many questionnaires, Dr. Hany? If the size of the sample is 1,000 participants in each country, it means that there is a large sample of 22,000 participants in 22 countries; but we have 148,000 participants; so they cannot be questioned.





All international sources say that Arabs do not read, and the average annual reading is 6 minutes, and only a quarter of a page per year for the Arab child in comparison to the American child. So why are there low reading rates in the Arab world in comparison to the Western world? We have conducted the Arabic Reading Index, in which 160,000 persons participated, 12,000 persons of them were excluded due to the lack of consistency of the validation level, so the number of the participants become 148,000 persons. The questionnaire sought to answer the following questions: Do the Arabs read? How do they read? What do they read? Are they reading foreign books? Are they reading work-related books, or other books in fields that are not related to work and study? Do they read printed or digital books? What are the personal characteristics and attitudes of individuals in relation to reading? Is there a motivation for reading? Does the family, community and school encourage reading? I would like to explain that the Reading Index is

an integrated methodology. There is a question about the questionnaire; why did you use the electronic questionnaire instead of the printed one? Because the electronic guestionnaire can reach categories that could not be accessed by a printed questionnaire, with such categories as other than pupils that cannot be reached by the printed questionnaire. The availability was 46% at the family-level, 52% at the enterprise level, and 37% at

the community level.

Moreover, with regard to reading trends, we asked them whether the reading is necessary or not, and is the reading less important than study? Does it end at the end of the study? Has the time of the reading from the internet ended? The results are as follows: Reading is an indispensable necessity 65%, reading is not less important than the study 70%, reading ends with study 24%, reading ends with the Internet 37%. The average number of books that are read annually is 16 books. The country that recorded the highest rate is Lebanon with 29 books per year, and the country that recorded the lowest rate is Somalia, with two books per year.

With regard to the types of the books, the results are as follows: 7 books in the field of study, and 9 books in fields that not related to the study or work. When we asked about the languages of the books, we found 11 books in Arabic and 6 in other languages. For printed reading, we found that the first field of reading was books by 28%, followed

> by novels by 20.55%, specialized magazines 20.21%, newspapers 17%, and finally storyboards 14%. In addition, digital reading is as follows: social networks 23.52% followed by news sites 23.2%, e-books 21.1%, electronic journals 15%, and finally blogs and professional networks. The average of reading hours is 35 hours per year, which is the lowest rate ever. The country that recorded the highest rate is Egypt, and the country that recorded the lowest rate is Somalia.





«The United Arab Emirates is the

first country in the Arab region and

the world that included the IT index

in the future vision of the country.

Futhermore, the UEA is the first country

in the Arab region and the world in the

index of the government success level

in upgrading information technology.»



Moderator: Many asked yesterday about the Arab Reading Index and why does the Arab Knowledge Project launch the Arab Knowledge Index and the Arab Reading Index at the same time?

Dr. Najoua Ghriss: Thanks Dr. Hany, the raised question is related to a very important matter; the relationship between various initiatives that are embraced by the Arab Knowledge Project. There is no doubt that we in the Arab region need many initiatives for the promotion of the cultural, economic and social status of this region. However, it is more important that these initiatives are inter-related and reinforce each other in providing an integrated strategic vision. I think the Arab Knowledge Project has succeeded in general in

this matter. It founds a thread connecting all these projects and adherence to a vision of building a knowledge society depends on using knowledge to achieve sustainable human development. Moreover, the Arab Reading Index, which is the subject of this question, is already within the framework of this vision; because we cannot imagine a society, looking for knowledge without being able to grasp development and without being a reader society. In addition, there is a need for tools to track the reading situation in the region. From this point of view, the reading index is an essential tool that helps in diagnosing the situation and building through it strategies for the advancement of the Arab world. The Arab Reading Index derives its legitimacy from the context in which it originated, because the Arab Reading Index is originated in the context of the Reading Challenge Initiative in the Arab region. This initiative created an unprecedented Arab reading movement in the Arab world. To achieve this initiative we also need important tools. The initiative "Read Challenge Initiative" is superficially a contest for a financial reward, but it is inwardly



«The Arab Reading Index is a fundamental instrument to reach the knowledge empowerment, and to build the required strategies for the development of the knowledge community, through collecting quantitative and qualitative

without being able to grasp information monitoring the current in capabilities that knowledge that achieves status of reading in the Arab world.»

a key drive of cultural development. Now, when we say it is a challenge, we mean that literally. Because those who participate in the reading challenge, will face all difficulties that can hinder them from the acquisition of reading skills. We know that the recent international studies show that the Arab students have difficulties in capabilities and skills reading. The



The Knowledge Summer Summer Summer States of the second se

more students tend to reading, the more they will improve these skills. In this context, the reading challenge also contributed to the improvement of reading capabilities. The challenge also means that when students participate in reading challenge, the reason for that is the motivation for reading. The more the student reads, the more his mind will be enlightened and open, apart from teaching and culturing himself. If this happens, he ensures for himself the causes of empowerment that lead to personal development, including challenging and positive competition to allow him to reach excellence. Participation in the challenge of reading constitutes the basis that opens to the pupils the road for the discovery of the pleasure of reading; thus they are reading and getting used to reading, reaching excellence and creativity. At these three levels of the challenge, we need each time a tool to measure the extent to which this is achieved. If the target is the ability to read, a tool shall be created to measure this. If the intent is the reading for the sake of the intellectual and cultural development, it needs a tool to measure it. If this is a contest for the purpose of excellence and creativity, we also need a tool to measure it. So, the reading project is fully legitimized by these three levels. The reading project is not breaking away from what was previously done, but it enriches the previous process. We need to strengthen the role of initiatives

to develop the Arab knowledge Index Project, to use the knowledge for achieving sustainable knowledge development. We cannot build a knowledge society without reading. The Reading Index is the basis for knowing the reading status in our world and how can we contribute to the advancement of the current situation. The Reading Challenge Initiative does not aim at winning awards only, but it aims at encouraging the reading, removing difficulties, opening the door of knowledge and discovering the pleasure of reading.

When talking about reading, we must answer three questions: Reading rate: How much do Arabs read, so we can discuss the numbers that are mentioned in the literatures without right documentation. Provide the reading opportunities that come primarily from a family that connects the child to reading, then educational institutions, libraries, and education curriculum. Then, the personal characteristics, or or so-called reading psychology. He shall be able to read, and has a positive tendency to understand that reading is useful, and he is motivated to read. It is an integrated system for understanding the subject of reading. After this index, we shall conduct focused qualitative studies; and include gender, age, and specialties. If it is the reader pupil or not, and insert this data in the academic studies to understand the reasons to reading, in order to use reading to achieve self-development.



The Knowledge Summer Summer Summer Summer States of the second se

Mohammed Khalifa, Legal Affairs Department of Dubai Are the determined ones included in these indexes?



Dr. Hany Torky:We allow all categories to participate without determination of specific category.



Mohammed Khalifa, Legal Affairs Department of Dubai Is there a correlation between the law issued in 2016 and these indexes?



Dr. Hany Torky: There is no contradiction between them. All stated in the laws exists within the index without correlation, which proves that we are on the right track.



Mohammed Khalifa, Legal Affairs Department of Dubai Can you please shed the light on the background of data?



Dr. Hany Torky: We conducted focused studies on the residence country and in the future we will add other variables, such as gender, age, and more.



Mohammed Khalifa, Legal Affairs Department of Dubai How can we encourage children to read?



H.E. Jamal Bin Huwaireb: This problem is not only in the U.A.E or the Arab world. All families suffer from it everywhere, and every father wants the best for his sons. The state encourages children to read, but the important thing is that families should be readers and read to their children. You know that 40 young, educated men established the UAE union, and today all UAE citizens are intellectuals. There is a severe shortage of children and adolescents books to attract this category to reading since childhood. Samar Emara: I noticed that these figures are not reflected on people's dealings in fact; so these books may not be non-related and does not really benefit the reader.

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Dr. Najoua Ghriss: These readings may not be useful, but for the act of the reading, there is a return to reading, this is undeniable matter. An in-depth study on this matter will be published very soon. In addition to that, book prices in the Western countries are cheap compared to the Arab countries, so the rates of digital reading are higher.



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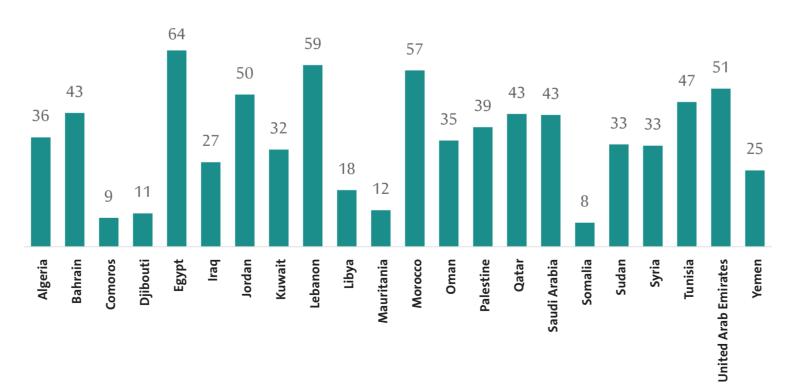
A sample of participants to the Arab Reading Index, including:





The yearly average number of hours of reading The average of all Arab countries

35 hours yearly



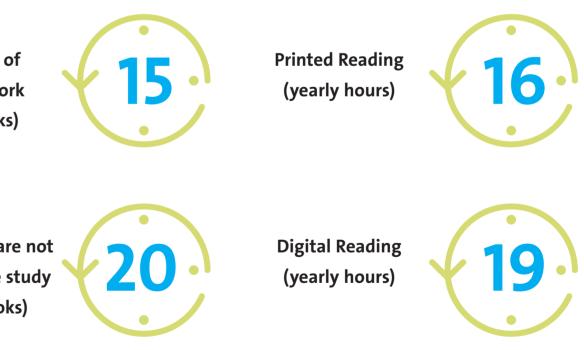
in the fields of study and work (yearly books)

in fields that are not related to the study (yearly books)

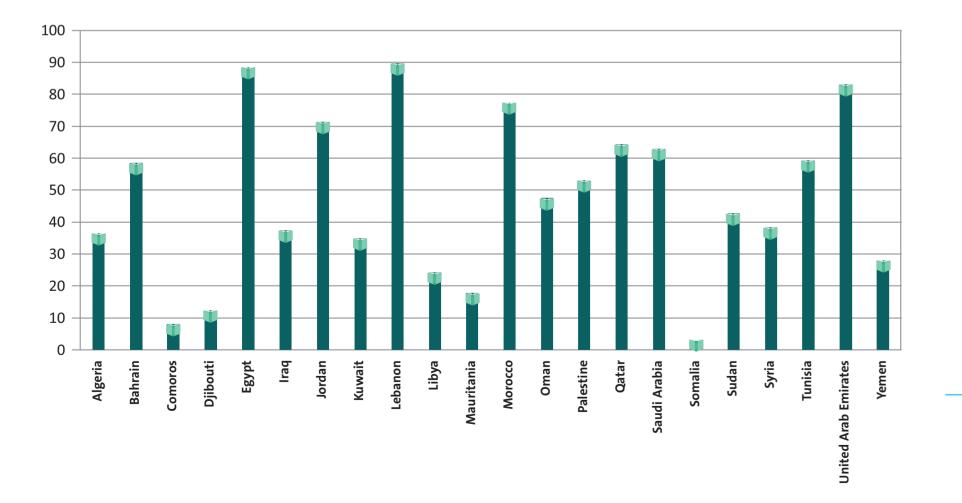
نتائج مؤشر القراءة العربي



The yearly average number of hours of reading in the following categories:







Arab Reading Index 2016





No. of books that are read each year with regard to language and the field of study and work



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The Knowledge Summit 2016 Knowledge... Present & Future

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Day Two

Second Session

A Discussion Panel with Decision Makers: Reading, Diagnosing Reality and Future Foresight

The Knowledge



Session topics

- How does reading play an important role in promoting social culture and in protecting the national identity?
- How does reading contribute in mastering a language and its impact on supporting the pillars of belonging and of the national identity?
- Reading and its role in forming a child's personality and the impact of translated books on the identity of Arab children
- Building a reading generation requires a fostering environment and supportive enablers to practice reading and writing
- Families bear the main responsibility in forming a child's desires, including the desire to read
- Home Libraries are integral to an environment that will build a reading generation
- The role of schools, teachers, and curricula in building awareness on the value of reading

The Knowledge Summit

Speakers

• H.E. Dr. Ahmad Belhoul Al Falasi

Cabinet Member and Minister of State for Higher Education

• H.E. Elias Bou Saab

Minister of Education and Higher Education in Lebanon

• Professor Noureddine Selmi

Deputy Minister of Higher Education and Scientific Research, Tunisia



Professor Yousry Elgamal Former Minister of Education in Egypt and former Chairman of the Board of Trustees at Egypt-Japanese University of Science and Technology

Yousry Elgamal is Professor of Computer Engineering, senior consultant at The Arab Academy for Science and Technology, and Chairman of The Computer Scientific Society (CSS), Alexandria-Egypt. He served as The Minister of Education of Egypt, Chairman, Board of Trustees, Egypt Japan University of Science and Technology (E-JUST) 2010-2014, and the senior consultant of the National Telecommunications Institute of Egypt.

Elgamal has also served in a number of capacities at The Arab Academy for Science and Technology and Maritime Transport. He also served as a Lecture of Nuclear Electronics at The Atomic Energy Agency (IAEA).



The Knowledge





H.E. Dr. Ahmad Belhoul Al Falasi

Cabinet Member and Minister of State for Higher Education

H.E. Dr. Ahmad Belhoul was appointed to the ministry in February 2016. Previously, he was the CEO of Masdar, overseeing the strategic direction and development of the renewable energy and clean technology sector. He is also a member of the Executive Committee of Masdar Institute of Science and Technology. Prior to that, Belhoul was the CEO of strategy and tourism sector development at Dubai's Department of Tourism and Commerce Marketing where he helped develop Dubai's Tourism 2020 strategy.

He was formerly Vice-President, Industry Unit of Mubadala Development Company, where he managed multi-billion dollar investments and stakeholders in the metals and mining sector. Belhoul's business development and corporate strategy experience dates back to his work with McKinsey & Company, where he worked on a human capital strategy for the science and technology sector. He also served as a faculty member at Khalifa University for Science, Technology and Research (KUSTAR) and on the board of Emirates Development Bank.

He has a Ph.D. from Sir John Monash University in Australia 2008, an MSc from the University of Melbourne and a BSc 2002 from KUSTAR in the UAE 2000.

H.E. Elias Bou Saab

Minister of Education and Higher Education in Lebanon

H.E. Elias Bou Saab was named Minister of Education and Higher Education in Lebanon 2014. H.E., co-founded the American University in Dubai, and is the Executive Vice President of the AUD the first US accredited university in the Gulf and has overseen its development into one of the premier institutions higher education in the region.

In an effort to bridge the gap between the East and the West, H.E. created a scholarship program in President Clinton's name, to provide U.S. students the opportunity to study in the Middle East. These programs received great support from His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE. Ruler of Dubai



Professor Noureddine Selmi

Deputy Minister of Higher Education and Scientific Research, Tunisia

Professor Noureddine Selmi is Deputy Minister of Higher Education and Scientific Research in Tunisia, and was formerly the Deputy Minister of Trade and Handicrafts. He served as the Adviser in charge of Statistics and Strategic Planning to the Minister of Higher Education and Scientific Research.

Dr. Selmi is a university Professor and Researcher in Management and Marketing Sciences. He received his PhD from the University of Savoie, France. He is a faculty member at Carthage University. He also served as a visiting scholar at several outstanding Arab and foreign universities.

Professor Selmi has many research papers and books published in peer-reviewed scientific journalism, and has been acknowledged worldwide by his extensive expertise and certificates. He graduated with honour from the National Defence Institute and the Management Leadership Institute.





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قــمــة لمعرفـة 2016 معـرفة.. الداضر والمستقبل

المعرفة



For me school is one of the most important factors in child reading, as each child spends almost 6 years in school. The library shall have books that are out of the scope of education. You have seen the reading initiative of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai, in which million children have participated and read almost 50 million books; this is a good side as there are initiatives and events that enhance reading in the community. Moreover, mother shall read to her children.

I agree with the Minister that the mother tongue is very important, however, I disagree in the point of focusing on the mother tongue, and we can focus on other languages without touching the mother tongue. For the legislative role in enhancing reading, we have seen government initiatives to support reading. However, there is a social role that encourages reading, in addition to legislations and laws for reading and companies' commitment to urge employees to read. In addition, there is the library of His Highness Sheik Mohammed Bin Rashid that includes two million books; all these factors are important in enhancing reading and culture.

In my point of view, using technology in teaching the child is an obligatory matter. For example, my son has a passion in sciences; therefore, before studying he opens the IPad and sees the lectures on YouTube, so he gains additional information. The challenge that I have is the quality of reading; reading discussions on Tweeter or reading simple essays without benefit cannot be considered reading.



UAE announced the first law of its kind for reading" that puts specific legislative frames, executive programs and government liabilities to deepening reading value ".sustainably in our country



Regarding reading, language in particular, everything is based on reading, which starts from home with the mother. This is what happened with my son, when his mother used to read to him even when he was asleep; he started to like reading. Moreover, through internet the child can connect and review several information whether in Arabic or English. We have seen recently the initiative of His Highness Sheikh Mohammed Bin Rashid regarding Reading Challenge. I have formed a team to follow up the initiative in Arabic. In addition, child has to listen well to acquire the language in a correct way.

I am pleased that Lebanese people have obtained the first rank in the matter of reading. From this point,weknowtheimportanceofreading.Lebanese people give books to their children as gifts. A student came to me once and said "Curricula have to be changed because you teach us for example the quantity of wheat production in Russia; I do not need to know that, the information exists from 20 years, however, I can use the IPhone to know the size of recent wheat production. Moreover, it will be more accurate than curricula". This matter made me think seriously in developing curricula. There is a video; the video's owner compared between phone in the past and its modern version, the car in the past and in the present time and between curricula in the past and in the present; which he found unchanged. He wants to say that curricula and thoughts need to be changed to adapt to the current development. Therefore, reading is important, however, curricula need to be developed.



"I am proud that Lebanon has obtained the first rank in reading in the Arab world, thanks to the initiative of "Reading Challenge", which is applicable in private and government schools in Lebanon."



This is an important session to link the present, the future, and family, society and school. The regulating line between social identity, culture and the future is reading that is based on the child. The noblest thing that a man does is reading and education because it was the first order from Allah, so it is a noble and highly important matter. To comment on the speech of the Minister, I would say that language is not merely a means of communication; however, it has deep roots in culture and identity. I believe that there is no life for people who do not maintain their language; the Chinese, Japanese and Hebrew languages are an example. Moreover, there is an important note, which is that language is not acquired one time however; it is acquired and developed by reading. In my opinion, in the beginning we should focus on the mother tongue. The child in his early years is an empty cup or a white paper; if he owned his language, he would be able to learn more languages. If the relation between the child and his mother tongue is weak, he will search for an alternative and if he depended on other languages, he would be apart from his language and culture. Learning languages makes us normal people and open to the world around us, therefore, child have to be able to use technology as there is a huge electronic blast, child have to be ready for it.



"Reading is the regulating line between social identity, culture and the future, because reading enhances the national identity and social culture. In addition, if we depend on reading we can foresee the future."

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The Session

Reading enhances social culture and protects national identity



Moderator: good morning, please, let me first congratulate the United Arab Emirates for their National Day, and greet His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai, for adopting 2016 as a year of reading, in addition to the competition of Arab Reading Challenge; all these factors enrich reading and knowledge in the Arab world.

I had the pleasure to be part of the team preparing the Arab Reading Index for the second year respectively. On the previous session, we have known the results of the Arab Reading Index. After the launch of the Index, the significance of this index shall be discussed, in addition to know how to utilize this index in encouraging readers and increasing reading and knowledge and support knowledge in the Arab world as well.

This panel discussion addresses the characterization

of the reality and future foresight. We will start with decision makers of higher education, Ministers in the Arab world. Please, let me welcome the guests of this discussion, H.E. Dr. Ahmad Belhoul Al Falasi, Cabinet Member and Minister of State for Higher Education in UAE, H.E. Elias Bou Saab, Minister of Education and Higher Education in Lebanon and Professor Noureddine Selmi, Deputy Minister of Higher Education and Scientific Research, Tunisia

What is the role of reading in enhancing social culture and protecting the contents of identity?



Professor Noureddine Selmi: First, I would like to thank the summit organizers. Moreover, I would like to mention that this session is well organized because there is a deep link between the present, the past and he future. In addition, when we depend on national identity and social culture, we foresee the future. This can be implemented through three major elements: family, society, and school. In addition, the regulating line between social identity, culture and the future is reading. It is education and language. Therefore, we should invest in the Arab child because we are talking about the future.

Reading is the noblest activity of man

The most eminent and noblest activity of man is reading and education. We all know that the first order of Allah Almighty to his last Messenger was reading. Jibreel the king of Revelation told our Honourable Prophet to "Read". Therefore, it is clearly shown that reading is the most eminent and noblest activity of man. Moreover, reading has a cultural role, especially if it is in the same language. In addition, it establishes the identity and gives us the opportunity of openness to others.



Moderator: indicators have shown that the biggest side of availability is for the school, then the family, and then the society. How do you see the role of the school as an entity, then we talk about the teacher, and then the curricula in building personalities, especially in matters related to reading and school care about developing students' reading skills and love? H.E. Dr. Ahmad Belhoul Al Falasi: Peace be upon you. First, I would like to thank the MBRF for organizing this summit, especially H.E. Jamal Bin Huwaireb, Managing Director of the Mohammed Bin Rashid Al Maktoum Foundation. Really, a summit that gathers all capabilities and experts in this field; thanks for this initiative. For the school, in my point of view it is a part of the effective factors in child reading. The child, in general can stay from 6 to 8 hours in the school on a daily basis. School is the first step to teach reading to the child. There is a big focus on the teacher; the role of the teacher is not to read to the child, but to help the child learn to read. In addition, the enhancing side is the existence of a comprehensive library for different materials away from the curricula. Schools always provide curricula-related books, however, I think there should be books available not related to the curricula that fulfil the passion of the student and motivate him to read things other than the assigned curricula. Through this, you develop the skill of reading about things other than the assigned ones. There are definitely other factors as we have seen in the UAE when His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime



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Minister and Ruler of Dubai, launched the initiative of Arab Reading Challenge, in which almost one million students have participated all over the Arab world and they read more than 50 million books, this is encouraging. Outside of the role of the school, there are legislations and initiatives that raise the motivation and the challenge side regarding reading. I see that the mother is the first school; the child always looks at the father and the mother as a higher model. If there is a library in the house, this will also help the child to pay attention to reading. We are used to seeing the father and the mother read to the child. This is the first step, however the second step is not to read to the child, but that of the child seeing his parents read. For example, I have a TV in my room, not in the children's room, therefore the child finds himself obliged to stay in the living room, which does not have a TV. The child finds no mean of entertainment other than reading. I repeat, school and the teacher play a great role; however, the family is the first school of the child and it has a big influence in encouraging him to read. Thank you all.



Moderator: So, you think that the role of the family and the child is very important and is considered a basic

factor before the school, especially in determining the times to watch the TV, surf the internet, play computer games, and reading as well. Language is a very important part; fluency in language is one of the important topics of the reading process. In addition, fluency in language enables students to express himself well. How do you see the role of Arabic and translated books?



H.E. Elias Bou Saab: Thank you Doctor. First, I would like to thank the MBRF, especially my friend and brother, H.E. Jamal Bin Huwaireb, Managing Director of the Mohammed Bin Rashid Al Maktoum Foundation, for this important gathering and revival of the Knowledge Summit. We deeply need such a summit because of knowledge importance for the future of any country. Regarding reading, and language in particular, the principle idea of education is based on reading because when we send our children to schools or to universities to learn, the entire education is based on reading. As the Doctor mentioned, reading starts from home. From my experience, I can say that the mother has the main role. For example, my wife was reading to my child even when he was asleep, so

he learned to love reading.

The child is raised on what you teach him. Actually, reading has a major and important role, no doubt. The student, who has a passion for knowledge, searches for a way to get information. The Doctor said that TV is prohibited in certain places, so the child goes to reading. Moreover, the child can use the available technology to conduct research on the internet, read, develop his reading and have further passion for knowledge. Regarding the language, we have started the stage of losing our Arabic language, because most things available to children when they love to see information were written in foreign languages, especially English. This is at least, what we have seen in our Arab world. On the other side, we have seen several tries to strengthen Arabic language through reading. Recently, we have seen the initiative of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, represented in Reading Challenge, which has been generalized in all Arab countries. In the Ministry of Education and Higher Education in Lebanon, I formed a team dedicated to this initiative and appointed an advisor to follow Reading Challenge in private and official schools. This initiative has spread in all private and official schools; there was a challenge between the members of the same family in the school. Who reads? How many books? Teachers began to motivate students further to participate in the game and win. Then, there was a challenge between every region and other regions in Lebanon, then a challenge between an Arab country and another one. Such initiatives encourage reading, especially in Arabic language. To strength languages, you need more listening and further reading to collect the language in a basic manner.

However, I insist that we mainly need to strengthen the Arabic language, then pay attention to other necessary languages that students shall have, because without reading, education cannot be developed in the future. Moreover, the student cannot reach any assigned objective or help himself afterwards without reading. Thank you all.



Professor Noureddine Selmi: Can I make a comment? To comment on the speech of the Minister; I say that language is not just a means of communication; it has deep roots in culture and identity. I believe that there is no life for people who do not maintain their language, the Chinese, Japanese and Hebrew languages are an example. I would like here to refer that Francophonie for example, tries to expand in the world. For example, Francophonie summit this year was held in Madagascar, in 2018, it will be held in

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Armenia and in 2020, it will be held in Tunisia. This means that languages are trying to expand as much as they can in the world. There is an important note that language is not acquired one time however; it is fed to develop. How can we feed the language? We can feed the language with reading. I can say that reading is the water of the language, i.e. if water is the secret of life; reading is the water of the language. Thank you all.



Moderator: Do you think the child shall be encouraged in the early stages of his life to read in his mother tongue only, or in another foreign language as well?



Professor Noureddine Selmi:

In my opinion, we should focus on the mother tongue because the child in his early years is like an empty vessel or a white page. If we make sure that he is able to speak in his native language, he will be able to learn other languages, and then, if the child begins to learn a number of languages simultaneously at the same rate and with the same focus, his mother tongue will be tangled. The mother tongue is important in asserting identity and cultivating the culture of the society. There is an important observation, if a relationship between child, person or citizen and his mother tongue is weakened, he will search about an alternative. In addition, when he seeks the alternative, it will be found in other languages. If he finds the alternative in other languages, he will inevitably leave his culture and identity, and may be separated from them, and if he is separated from his culture and identity, he will not be an active element of the society. Thank you.



Moderator: My question to you H.E. Dr. Ahmad Belhoul Al Falasi, in the questionnaire, there was a question about the supportive environment for reading, is there a library in the school? Is there a library in the factory? Is there a library in the office, or the neighbourhood? How do you see the state's role in providing a supportive environment for reading?



H.E. Dr. Ahmad Al Falasi: allow me first to comment on the point mentioned by his Excellency Minister with regard to the mother tongue. I agree with him that the mother tongue is important to reading, as it constitutes the affiliation and identity beyond the family, it determines geographical affiliation and national identity. Therefore, it is very important that a young child can speak his or her mother tongue. However, I disagree with him in saying only to focus on the mother tongue. On the contrary, a young child at an early age can learn several languages, up to four languages without affecting his mother language. If the child learns other languages at a young age, he will understand other civilizations and become more tolerant and coexistent. I agree with him that language is the basis of national identity, but this does not preclude the addition of other languages, especially at a young age. As for the role of the state in issuing legislations, we have spoken about the role of the family, the role of mother in specific, the role of the school and the role of the society. We talked about the role of the Arab Reading Challenge and we have seen the results of the project and the average number of books that are read. The UAE issued a law concerning reading that makes reading an inalienable right. If any employee wants to read any specialized reading, the law requires me to give him an hour, and adhere to the knowledge volunteering. This law obliged companies to give employees time for specialized voluntary reading. In my opinion, this law helps in spreading reading. The third aspect is the announcement of establishing of the Sheikh Mohammed Bin Rashid Al Maktoum Library, the first of its kind, which includes 2 million digital books, one million audio books and 10 million printed books. It is a real gain for all Arab nations with regard to the wealth of information that it contains. The library that contains printed and digital books, the law and the initiatives that create the spirit of competition, these three things are important to promote the reading beyond the family and school. Thank you!



Moderator: Lebanon ranked first in the Arab Reading Index, in your opinion, does this achievement belong to the school, the community, or the family?



H.E. Elias Bou Saab: Firstly, I want to thank all people

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involved in this project and I am proud that Lebanon got the first place in reading in the Arab world. Reading began to take different forms other than what we had seen before. There are smartphones and the child can access through them any topic to read, or search for any information. Strengthening the Arabic language among students shall be done through simplifying and updating curriculum and making it friendlier, keeping in pace with recent developments, that enable them to maintain their identity and serve their nations. Building a reader generation requires a host environment and supportive enablers for all the reading and writing practices.

The family bears the greatest burden in development

and implantation of a reading habit, as well as the role of school, teacher and educational curriculum in building a personality that understands the value of reading. style to the youth?



Dr. Noureddine Selmi: The use of technology can enable the child to develop his passion for reading, with the importance of the role of the school in accompanying the child since childhood. In addition, show the mechanisms of how to acquire knowledge and information, especially in light of the information explosion, which is witnessed by the world today, demanding the provision of programs compatible with technology to make the reading most enjoyable to the child.



Moderator: Dr. Noureddine, we would like to know your opinion in the use of technology and social networking among young people. In addition, how to exploit this matter in encouraging reading in closest



H.E. Dr. Ahmad Al Falasi: Technology is very important in helping the student to avoid dictation and tend to look for information, which can be a way to encourage reading. The challenge here lies in content.



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Public Interventions

What the position of the Kuttab within the educational system and the reading at the level of the child and the nation?



H.E. Dr. Elias Bou Saab: In my opinion, this role still exists, because it strengthens the Arabic language. The preference of digital reading to printed. Reading is one thing that is irrespective of the medium, same as paper money and the electronic wallet; it is one thing with various forms.



Is there is a gap between education and technology?



H.E. Dr. Elias Bou Saab: with regard to the entrepreneurship and technology, yes, there is a gap between education and technology. If you have a scientific growth, you will have a good research application, which is reflected on the labour market.



How to face the challenge of language with the means of the era, we deal in slang language and do not deal with classical Arabic, so how can this be handled?



H.E. Dr. Elias Bou Saab: My son suffers from the same

problem, because private schools are interested in profit and neglect the Arabic language. This will be handled in the near future, because the international schools will invest in Arabic language. Because the stated condition is to pass the Arabic language test, and if the student cannot pass this test, he cannot complete his studies.

Adel Rizk: What is the position of the Kuttab and introducer within the educational system, as well as pointing out the subject of reading at the level of the child, and then of the mother?



H.E. Dr. Ahmad Al Falasi: The role of the Kuttab still exists but it is optional, because the decision to memorize the Quran is internally within the family to enhance the mastery of Arabic language, perhaps because of the low proportion of qualified Quran teachers at least in the UAE, but the good still exists.

Dr. Sherif Qandil: What is the reason for the prevalence of the dependence on digital reading among younger generations more than printed one?



H.E. Dr. Ahmad Al Falasi: This a new generation and this means that it is used in obtaining information differently. However, information remains the same. In addition to this, to make the idea clearer let me give you an example of a different technology. When a person used to travel to a country, he was carrying money in currency of that country. Now many are completely dependent on a credit card in financial or physical transactions abroad and the matter is the same in relation to reading. The means is different, but the information is the same. I personally prefer digital reading because I think it helps in documenting the information.



oge...Present & Future



Day Two

The Knowledge

First session Education Technologies and the Future



- Technology in traditional and innovative education
- The role of innovation in education
- E-learning: advantages and disadvantages
- Successful experiences from around the world
- Innovation in education in light of force majeure conditions
- New Curricula and Disciplines to Keep Pace with Future Prospects

Knowledge...Present and Future 2016

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Speakers

H.E. Hussain Bin Ibrahim Al Hammadi Minister of Education, Chairman of the National Commission for Education, Culture and Science

H.E. Dr. Talal Abu-Ghazaleh Chairman of the Arab States Research and Education Network (ARSEN) H.E. Elias Bou Saab

Minister of Education and Higher Education in Lebanon

Katsuhisa Sagisaka Director of International Affairs Division, MEX, Japan

Tony Wagner Expert in Residence at Harvard University's new Innovation Lab.

The Knowledge Summit



Dr. Prasad Ram Co-founder and CEO of Gooru

Dr. Prasad Ram "Pram" started Gooru as a 20% project while at Google, where he led Google Books for Education in Mountain View, California, USA. Gooru is free learning navigator – a "GPS" for learning that empowers students with real-time data about their proficiencies and choices of learning activities, so they can choose their learning path and pace.

Prior to Gooru, he was CTO Google in India where he led projects on Maps, News, Translation Technologies, Search and Ads. Prior to Google, Pram led engineering teams at Yahoo! He started his career as a research scientist at Xerox Research.

Pram is Council Member and Chair of the Education Committee at California Council of Science and Technology, and he is a Board Member at Leadership Public Schools. Pram has a Ph.D. and M.S. in Computer Science from UCLA, and a B.S. in Computer Science from Indian Institute of Technology-Bombay, India."



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H.E. Hussain Bin Ibrahim Al Hammadi Minister of Education, Chairman of the National Commission for Education, Culture and Science

H.E. Hussain Bin Ibrahim Al Hammadi joined the Federal Government in 2014 as Minister of Education and still holds this post to date. The Minister fulfills other strategic roles within the education sphere, including Chairman of the Board of Trustees of the Institute of Applied Technology, Vice Chairman of Khalifa University, Chairman of the Board of Trustees of Hamdan Bin Rashid Al Maktoum Award for Distinguished Academic Performance, Chairman of the Higher Committee of Mohammed Bin Rashid Smart Learning Program, Director General of the Abu Dhabi Centre for Technical and Vocational Education and Training (ADVETI), and Member of the Board of Trustees of the Khalifa Award for Education.

Since graduating from the University of Embry-Riddle in the United States, H.E. Hussain Al Hammadi gained solid experience that enabled him to take on national-level challenges with great competence. His proactive approach has contributed to advancing technical and vocational education in the UAE, and aligning it with the developmental needs of UAE and its future prospects.

H.E. Dr. Talal Abu-Ghazaleh

Chairman of the Arab States Research and Education Network (ARSEN)

A builder of institutions, with a sense of history and a vision for the renaissance of the Arab and Islamic worlds, Dr. Abu-Ghazaleh is recognized as one of the most influential leaders in the world, with lifetime achievements, distinctions and outstanding contributions to education, accountancy, Intellectual Property, business administration and management, commerce, ICT, science and technology, law and other fields.

He founded Talal Abu-Ghazaleh Organization (TAG-Org) in 1972, a leading global provider of professional and educational services with 85 offices worldwide.

A glance at Talal Abu-Ghazaleh's past leadership roles reveals a long and engaging career with business-related international development organizations, and forwardthinking business projects in the Arab world. He has created a unique hybrid – a forprofit private firm with a mission statement to "contribute to the socioeconomic development of the Arab world." Talal Abu-Ghazaleh also served on the board of the UN Global Compact and as Chairman of the UN Global Alliance for ICT and Development. He is currently Chairman of the Arab Coalition of Services and a member of the WTO Panel on Defining the Future of Trade.



H.E. Elias Bou Saab

Minister of Education and Higher Education in Lebanon

H.E. Elias Bou Saab was named Minister of Education and Higher Education in Lebanon 2014. H.E., co-founded the American University in Dubai, and is the Executive Vice President of the AUD the first US accredited university in the Gulf and has overseen its development into one of the premier institutions higher education in the region. In an effort to bridge the gap between the East and the West, H.E. created a scholarship program in President Clinton's name to provide U.S. students the opportunity to study in the Middle East. These programs received great support from His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, Ruler of Dubai.

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Katsuhisa Sagisaka

Director of International Affairs Division, MEXT, Japan

Mr. Katsuhisa Sagisaka is the Director of International Affairs Division, Minister's Secretariat, Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan. With more than 28 years of experience under his belt, Mr. Sagisaka is one of the most accomplished government executives holding executive positions in many of the government agencies of Japan. Previously, he was the Director of International Affairs Division at the Agency for Cultural Affairs in Japan. Prior to that, Mr. Sagisaka was the Director for International Affairs, Bureau of Science, Technology and Innovation, Cabinet Office. He was also the Director of International Science and Technology Affairs Division, Science and Technology Policy Bureau, MEXT for more than five years.

Mr. Sagisaka holds a Bachelor of Laws from Hokkaido University. Expert in Residence at Harvard University's new Innovation Lab.

Tony Wagner

Tony was the first Innovation Education Fellow at the Technology & Entrepreneurship Centre at Harvard, and the founder and codirector of the Change Leadership Group at the Harvard Graduate School of Education for more than a decade. His previous work experience includes twelve years as a high school teacher, K-8 principal, university professor in teacher education, and founding executive director of Educators for Social Responsibility.

Tony is a widely published author. His work includes numerous articles and six books, including Most Likely To Succeed: Preparing Our Kids for The Innovation Era, co-authored by Ted Dintersmith. His 2012 book: Creating Innovators: The Making of Young People Who Will Change The World was translated into 12 languages. His 2008 book, The Global Achievement Gap continues to be an international best seller, with a Second Edition recently released.

Tony served as the Strategic Education Advisor for a major new education documentary, "Most Likely to Succeed," which had its world premiere at the 2015 Sundance Film Festival. He also collaborated with noted filmmaker Robert Compton to create a 60 minute documentary, "The Finland Phenomenon: Inside The World's Most Surprising School System" in 2010.





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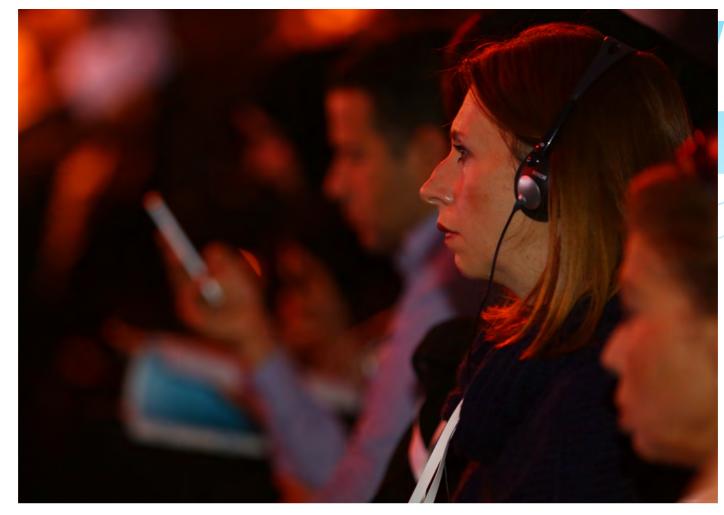




The Knowledge Summer I

Moderator: I am so happy to be with you and to be visiting your country. I am honoured to participate and deliver a speech to you. The subject of today's session, as the internal announcer pointed out shortly, is education technology and the future. As we all know, technology has become a part of everything in our lives in recent years, but for certain reasons - as speakers have pointed out in the previous session - it is not easy to know the outcome of technology in the field of education, which is an important element in school curricula. Therefore, we will devote part of this session to discuss this topic and present our observations on it, as well as give an idea of our education company. Following that, I will introduce our panel members, who will share their views and observations in this regard. Let me introduce myself briefly. I am the founder of Guru, a nonprofit company in partnership with the Google search engine, concerned with Google Maps, funded by the Bill Gates Foundation and Google, and the product we offer is completely free. Let me start by asking this important question: let's imagine that we have a GPS system for education. Just as GPS detects your location and where you are, so is the GPS system for education, it detects your location within the whole learning process. This system helps create a learning framework and then identifies your path in this domain,

which you have to follow. The challenge we face in the area of education technology and the future is that education is always focused on the final destination, which is the curricula, standards, assessment and degree that students receive, while the most important is the need to focus on the students themselves: where are they? What is the progress each student achieves? This is the essential element that ensures the success of the teaching technique and the mechanism in which it operates. It is also important to know the interests and desires of students, and the extent of their involvement in school activities and interaction. All these elements can be integrated to provide a complete and good experience that benefits students a lot. The important thing we have done is to make sure the way the GPS system works in the educational process. Under this system, we have all the data and resources available on the Internet that can be accessed in the new educational process. As the case with Google, we have created a site for research in the field of education, so that we can find all the resources of education on the Internet, and we can organize and research them, and then look at the data of site users, and examine and analyse in order to guide them to what they want. In addition, we will know everyone wants to learn, as we will know from data the educational activities they need, and





the destination they desire. These elements are in fact the essence of the technology of education within the framework we have developed. The idea of the GPS system that we designed for the field of education is, as I mentioned earlier, to identify people's attitudes, goals, activities or interests, to help them achieve their educational desires, and guide them to the best universities which achieve that to them. The main challenge we face in education and adaption to its changing system is always represented in identifying students' needs. I would like to point out that students who were below the required level were able to achieve a 2.8% growth in performance following the use of this new system at the Guru Foundation. I would like to conclude by thanking all of you. After that,

we will welcome the keynote speakers of this session. Each one will be allowed to speak for ten minutes to give their views and comments on the main theme of the session. Then, we will give some time for interventions and questions. Peace be upon you.

Moderator: I would like to welcome H.E. Eng. Hussein Al Hammadi, Minister of Education of the United Arab Emirates, H.E. Elias Bou Saab, Minister of Education and Higher Education of Lebanon, Katsuhisa Sagisaka of the Ministry of Science and Technology of Japan, Talal Abu Ghazaleh, the chairman of The global organization for professional services and education and the co-founder of Talal Abu-Ghazaleh International,



and Dr. Tony Wagner of the Howard Innovation Lab.

I am from the Ministry of Science and Technology of Japan. I am pleased to start with an on-screen presentation of the efforts made by the Ministry to facilitate and create a way for people to read in Japan, the way in which we have taken note of some of the percentages related to this topic. People who read newspapers and magazines represent atotal of %V•, which is a large proportion compared to global proportions. Most Japanese believe that our illiteracy rate now stands only at about %1, but we do not have accurate data or figures for this percentage. In any case, it can be said that Japan is at the forefront of the world>s literacy and literacy rates. What is important here is that the new system developed by the Ministry for reading and writing is flexible, easy to use and understandable, and helps its users to learn reading and writing skills in a short period of time. It also has a variety of math and science skills and facilitates the use of language between users and facilitates communications among them. Simplifying the writing method is one of the most important advantages of this innovative system. (You are now watching a demonstration showing numbers and statistics of the proportions of primary and secondary

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education in Japan and the educational systems used in these schools, data on the curricula and curricula applied in these schools and the skills of teachers). These curricula set precise standards in all stages of education, from kindergarten to high school, to achieve a certain level of education all over Japan. We also considered the need to review these curricula once every ten years, and to encourage students to learn, think, analyse, and instilling the love of life in them. In addition, the curriculum promotes linguistic activities in science and mathematics. With regard to Japanese language, we have developed students> ability to think logically and communicate with others. Within these curricula, there is also an emphasis on allowing students time to take notes and conduct the necessary experiments and report on them, especially with regard to mathematics and science. School libraries are also very important within Japan>s comprehensive education system. School teachers are assigned to each school with at least IF classrooms, where they plan on how to make students benefit from these libraries and encourage them to read. (You are watching statistics on the percentage of school libraries prevalence in Japan). The efforts to promote reading and writing are not limited to the Ministry of Science and Technology, but also to

the Government, which continues its plans in this area, to discuss many educational programs and projects in the Parliament, as well as other efforts by Governments and relevant local bodies in the difference regions and territories Japan. (You will see graphs showing Japanese government plans for promoting reading and writing among children in percent). One of the most prominent examples of successful initiatives implemented in the city of Misato, known as «good practice», carries the name "Ouchi Doku," which means «house of reading» in Japanese, where it is the first city in Japan in terms of people>s willingness to read and learn. In addition, this city organizes a competition every year known as the e-reading competition, in which children and parents are invited to nominate or choose the best book they read in a period of time determined by the competition, which should be useful to the whole family. Indeed, many countries around the world have expressed their willingness to cooperate with Japan in the implementation of reading and writing projects and initiatives and also to benefit from the initiatives launched by Japan in this area. However, I am not sure how many countries have declared their willingness to cooperate with Japan in this regard. In conclusion, I would like to thank you all, and I wish you every success. Peace be upon you.

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I would like to thank my brother, Jamal Bin Huwaireb, Executive Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation for organizing this conference to discuss important topics of interest to the Arab world at this critical stage. We invoke God Almighty to benefit a lot from this conference and gain great positive points in the development of educational process and other aspects that will contribute, God willing, to a scientific cultural renaissance in the Arab world. My brothers and sisters, as far as e-learning and innovation in education are concerned, it has become very important nowadays. There is no alternative but to keep pace with technology and developments in the world. If we do not integrate them in a positive and effective way in education, we will not be able to catch up with development and innovation in the world. Education and technology are the two sides of a single coin; technology must be integrated in a positive and complementary way in education to help develop students>

skills and abilities. The current generation is different from us, they are constantly updated on the most important scientific events and developments in the world. Here is a brief summary of the difference between two educational systems: traditional education and modern education. Of course, modern and innovative education focuses on students as the main concern in the educational process, where curricula, school and society provide services to develop the capabilities and skills of students in this community. Of course, the UAE is a country that is keen on innovation, therefore the UAE has launched an innovation strategy this year. Education has been the main focus of innovation strategy. It is an important part of the national vision and one of the important issues. Therefore, in the national vision, we have made the achievement of innovation in education the main concern and launched a new educational system this year, which we call the Emirati School. This school is different from classical or old education system in the Arab world. A new school that calls on and supports innovation, and new scientific materials were introduced into this school for the first time in the Arab educational system. Skills of the twenty-first century were put into focus and were fully integrated. New materials have been introduced such as design and technology from the

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The U.A.E. has adopted a national innovation strategy, and education is one of its main aspects. This comes within the national vision for transformation to aknowledgebased economy. as design and technology from the fourth to the ninth grade, Creative and innovation materials were introduced from 10th to 12th grade, life skills, health science, entrepreneurship, all these are new materials. There are some materials developed to suit the modern technological era, such as computer programming and the introduction of computer science to be a basic material in





high school, and the skills of higher programming, logic and analysis. The other curricula, such as mathematics, science, Arabic and Islamic education, have been developed and produced in a very new way to enable students to cope with modern technological development and technological leap away from basic education because students shall not have a desire to learn these materials, as information are already available, therefore they believe their presence in classrooms is a waste of time, as they can get the information through the Internet at any moment. The new thought is how to apply knowledge to life, and how to benefit from knowledge and skills acquired by students in the UAE School to solve real problems in society. Materials like history, geography, economics and philosophy have been combined into one material, which is social studies to enable students to benefit from these information, which is scattered in different materials and integrates them to begin to solve and discuss local, regional or global topics. In the upper grades, the textbook was replaced with well-known books in the United Arab Emirates for students to read, such as "Al-Siraj" and "Al-Ittihad Quwwah." The class turns into discussion panels and deductive topics based on these books. Instead of teaching the material by teachers, students will run these discussion panels, introduce their ideas and analyses in this field. We are talking about a new school that is in line with the technical development of the UAE by achieving its ambitions to create an innovative generation that will be the pioneers of innovation and knowledge in the UAE. This system will include citizens and residents in the country, which will be a beacon from which knowledge will spread to the entire Arab world.

My brothers and sisters, the progress and acceleration of technology and the presence of resistance in the introduction of this technology in any educational system is a serious risk, because they marginalize the behaviour and desires of the student in the society. There are theories and studies that say that classical and old education can come back and play a key role in some topics so that the school environment would be an environment that students desire to attend for learning, because if you do not do that, you will lose the most important thing in education is the student. In the new UAE School, there are many challenges for implementing an innovative curriculum in the Arab world. Due to the lack of highly gualified teachers and the lack of references in the Arabic language that can be used to introduce new programs, we adopted the technologies of the advanced world in Europe in the first stage. Some books have been translated or produced locally in the United Arab Emirates. The other challenge is to bring together the different communities to be one team to achieve the success of the UAE School. Praise be to Allah. We have succeeded in universities, since the whole country participates in the preparation of the UAE School: the industrial sectors and the economic sectors are cooperating in raising the abilities of students. Even today, there are meetings with some economic entities in the UAE and government institutions seeking to contribute effectively to extracurricular activities provided by the Ministry, whether on the school day or on summer vacations. Of course, this

system needs a complex electronic system with the capabilities and possibilities to enable it to manage and follow this educational process. Today, we cannot -even if we want to- use technology and do some actions without artificial intelligence that can manage and monitor the educational process, whether in terms of curriculum, evaluation and measurement, or in terms of systematic and nonsystematic duties and continuous assessment. So, we have to develop a data centre and connect these schools with an intranet system of high speed and broad bands. Moreover, there should be reliability to ensure continuity of school lessons due to a hitch in the system. Furthermore, we have developed a national exams system to be applied for the first time in the UAE to ensure the quality of education for all students living in the UAE whether citizens or expatriates, whether governmental education or special education. We also have accurate readings to know the skills required and the depth of knowledge of students in certain stages of study to ensure students capable of joining the local or international universities. This is a key role that must be performed to accept the quality of educational process and education in the United Arab Emirates by the ministry. This was the basis for the launch of a competent system to enable us to monitor one million students in the UAE by few numbers of humans, but with the use of technology and using modern methods, we could achieve a distinctive and efficient education. Peace be upon vou.

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Good afternoon, I will not deliver a speech but I want to put forward ideas, and I welcome your agreement or disagreement with me, because I believe in having two opinions. We live two lives in this age, we must remember that there is a real life we live today, and there is another life, a real life on the Internet or the virtual life. When we talk about education, we cannot ignore that. I do not want to talk about how to develop traditional education, but I want to talk about the development of digital education. I am pleased to announce that the Arab League, The Council of Arab Economic Unity (CAEU), announced the establishment of the Digital University Union last week, and I will have the chance to be the chairman of this Union. There is a difference between the two worlds: the positive world and the digital world. The minute we live here is different from the minute in space. Every minute we spend in space there are four million searches

on Google, 3 million YouTube views and 220 million emails per minute. This is the world I want to talk about, not the world of positivism or traditional education. We are facing a revolution, not just a change or a traditional development like what humanity has experienced. "There will be collapse in educational institutions," says Lawrence Summers, president of Harvard University. "A Tsunami will sweep universities and traditional schools," says John Hansi. «We>re seeing the death of universities and schools, whether we like it or not, that>s another topic,» says Thomas H. Friedman. So, there is a revolution that we can call the digital education revolution. We are talking about the Syrian refugees and the refugees in Palestine and I say that this revolution is a blessing for them. Today we are in Al-Zaatari refugee camp in Jordan -His Excellency the Minister - we are teaching the BSc and MA students online the curricula of internationally recognized universities. I am proud to inform you that refugees are one of the highest rates of digital knowledge worldwide. Because it has no connection to the world except through this device, since they have no cinema, no club or anything, this is the blessing of suffering of which I am a product. I am a Palestinian refugee, a product of the grace of suffering that forced me to be what I am now. We need to study some phenomena. When we see Bill Gates, Lauren and

Steve Jobs leaving the university, have they fallen? No, they did not fall, but the university fell, they discovered that there was science and knowledge for them outside the classroom. We must realize that there is another direction that union of digital universities will guide the future in everything. aims to support the efforts Ladies and gentlemen, economic problems, conditions, employment and



"Announcing the first Arab our of many Arab countries to living adopt a knowledge-based approach to economy

government deficits are all transformed into a knowledge-based society. Once I asked Bill Gates: What do you call yourself? He said: I am a knowledge factor. Scandinavian countries decided next year to cancel language learning because the child is in the lap of his mother learns the language. When he holds a tablet and moves his finger, he writes, so do not expect him to come to class to learn these skills. Every year the United Nations carries out a census called the «digital citizen», this is the future. The digital citizen is the one who lives, and the non-digital is the one who dies. Do not ask me about human feelings. I asked Bill Gates: Can technology affect us and make us lose our humanity? He said: Were we more human when we lead the lives of the caves eating one another without the presence of technology? Talal Abu-Ghazaleh is

> the world's leading institution in the field of digital knowledge. We have established a virtual university called Talal Abu-Ghazaleh University for any student who desires to obtain a certificate from anywhere in the world. The knowledgebased society is the community of justice, the Internet is a true democracy.

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First, I would like to thank the moderator for inviting me to participate in this important session, because without technology we cannot do anything on the ground to develop the curriculum or any education sector in any country in our age. The truth is, if we want to make an educational revolution to make a difference in the education sector, especially in the Arab world, an educational revolution because we have many constituents and we have many things that we must change. Some countries have experience and progress in some sectors, and Minister Hussain Al Hammadi spoke lengthy about the long experience of the UAE and about the long distance they have taken in the development of schools and the introduction of technology to them. Of course, the U.A.E is

one of the developed countries in developing its curricula and in developing Schools in general. The U.A.E stayed long time while people were refusing to preside the Ministry of Education because it was a difficult ministry, but Dr. Hussein turned it into an easy ministry through the efforts made. We have seen efforts being made and there is hope for a real development industry in the education sector. I want to talk about my experience in the education sector in Lebanon and neighbouring countries and the problems we have experienced in education. In order to develop the sector and introduce technology and innovation there are several things that we must start with. We must talk about the building, i.e., the model schools that are coping with this technological revolution: the educational and the technological revolutions, as schools have changed nowadays. As I mentioned in the previous session, I watched a video of a person trying to make a comparison between things in the past and in the present and future, and demonstrated the school and the classrooms. It was surprising that the shape of school and classrooms have not changed for 100 years.

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"Using modern technology, the U.A.E. has made enormous strides in the development of the educational process and academic syllabuses. Technology has developed and matters have changed, but the matter needs more effort, because keeping the condition of schools as they are and in the way they were does not keep pace with the times in which we live. It is not possible to put 30 students in a single class, and to treat them all in one style or method. The teacher has the responsibility to deal with



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all students according to a specific curriculum. This approach applies to all students. How do we differentiate between students? Because individual differences in students are different and there is no one like the other, and our curriculum currently does not address this crisis. In other words, not all lessons can be distributed to all students in the same way. Some students have special needs; how can they be cared for? Perhaps some of them have a higher IQ than others, but on a particular subject, they must deal with this difference while explaining the lesson. Do our regular schools address these issues? The Answer is No. But we need to reach a stage after developing the buildings, schools and laboratories that we need. We have to pay attention to professors because we place our future, the future of our children and the future of our homeland in their hands. You know that every official in a leadership position was one day a student of these teachers. This is a crisis that we are experiencing in some countries, and I do not know whether it is common in all countries or not, but we always hear about teachers, teaching hours and salaries. Teachers are not treated like other sectors of the state because the teacher who teaches in several classes throughout the day makes more effort than any other worker. Teaching hours should be reduced

so that teachers can focus more on students in order to secure the required curriculum in this time. Training teachers and giving them appropriate and suitable salaries. In the subject of curriculum, how can we develop the curricula to keep abreast of technology? Curricula must be developed because information changes from day to day, students can access the Internet and learn new information that is not in the curriculum, and therefore the curriculum must be interactive. Curricula must cope with the future and new technologies, and exams must be developed by introducing mechanization and technology in correction. As for technology and providing the large amount of information at the lowest cost, we have problems which we can change from a distress to a grace. For example, we have a crisis because of the Syrian refugees in Lebanon, there are 450,000 Syrian students in Lebanon, which is a big crisis because the infrastructure does not help us. Hence, we began to implement new ideas such as dividing the school into two periods. Two-and-a-half-year periods could be reduced to a short period, such as the introduction of a short-term education program to bridge the gap between students who missed the years of schooling with their peers. Parents must be convinced that their children should go to schools, not to work to earn a living, so we are working to raise parents' awareness.





I am from the Ministry of Science and Technology of Japan. I am pleased to start with an on-screen presentation of the efforts made by the Ministry to facilitate and create a way for people to read in Japan, the way in which we have taken note of some of the percentages related to this topic. People who read Newspapers and magazines are 70%, which is a large proportion compared to global proportions. Most Japanese believe that our illiteracy rate now stands at about 1% only, but we do not have accurate data or figures for this percentage. In any case, it can be said that Japan is at the forefront of the world's literacy and literacy rates. What is important here is that the new system developed by the Ministry for reading and writing is flexible, easy to use and understandable, and helps

its users to learn reading and writing skills in a short period of time. It also has a variety of math and science skills and facilitates the use of language between and facilitates users communications among Simplifying them. the writing method is one of the most important advantages



"While 60% of Japanese schools have libraries, the government intends to give access to 97% of primary schools and to 98% of secondary schools."

watching a demonstration showing numbers and statistics of the proportions of primary and secondary education in Japan and the educational systems used in these schools, data on the curricula and curricula applied in these schools and the skills of teachers). These curricula set precise standards in all stages of education, from kindergarten to high school, to achieve a certain level of education all over Japan. We also considered the need to review these curricula once every ten years, and to encourage students to learn, think, analyse, and instilling the love of life in them. In addition, the curriculum promotes linguistic activities in science and mathematics. With regard to Japanese language, we have developed students'

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system. School teachers are assigned to each school with at least 12 classrooms where they plan how to make students benefit from these libraries and encourage them to read. (You are watching statistics on the percentage of school libraries prevalence in Japan). The efforts to promote reading and writing are not limited to the Ministry of Science and Technology, but also to the Government, which continues its plans in this area, to discuss many educational programs and projects in the Parliament, as well as other efforts by Governments and relevant local bodies in the difference regions and territories Japan. (You will see graphs showing Japanese government plans for promoting reading and writing among children in percent). One of the most prominent examples of successful initiatives implemented in the city of Misato, known as "good practice", carries the name "Ouchi Doku," which means "house of reading" in Japanese, where it is the first city in Japan in terms of people's willingness to read and learn. In addition, this city organizes a competition every year known as the e-reading competition, in which children and parents are invited to nominate or choose the best book they read in a period of time determined by the competition, which should

be useful to the whole family. Indeed, many countries around the world have expressed their willingness to cooperate with Japan in the implementation of reading and writing projects and initiatives and also to benefit from the initiatives launched by Japan in this area. However, I am not sure how many countries have declared their willingness to cooperate with Japan in this regard. In conclusion, I would like to thank you all, and I wish you every success. Peace be upon you.







First, what I would like to say is that I strongly believe that we are all brothers and sisters in humanity and that all Muslims are welcome in America regardless the person who holds the office in my country. When we talk about technology and the future of education, I think we must first understand the changing general context of education and the changing general goals of the education system as a whole. Schools we have established almost a century ago to solve illiteracy and ignorance are no longer appropriate or the ideal solution for the global digital community now known. These schools, although they have led and continue to play a role in education and graduation of large numbers of students, they are no longer suitable for keeping pace with the changes and developments of the current technological age and the age of digital knowledge. When I started my teaching career 45 years ago, we were talking about the new knowledge-

based economy and the need for new specialized people in the field of knowledge. But there were few people who realized and understood that there was no real need for a knowledge-based economy alone. Why? Because knowledge has become a commodity to be sold and bought according to the laws of supply and demand in the market, especially with the continuous technological development in the world of the Internet and communications and the emergence of advanced devices and new means of communication. The result is that we understand that knowledge is necessary for the economy, but it is not enough at the same time. The reason is that our children are even aware that they can learn anything through the global search engine "Google." Children have become familiar with almost everything. Use their information at any time or in any field that uses this information and benefit therefrom. I have been involved for decades with the educational process and have developed many systems and solutions to the problems of education, but I have finally realized that knowledge alone is not enough to support education, but more importantly the need for innovation among schoolchildren, as we are now in the age of innovation. The solution lies in innovation, especially since knowledge is no longer

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"Our schools have been established a century ago to teach and improve the arithmetic skills of a huge number of children at the same time." sufficient alone. It is true that many schools under current education systems achieve the desired results for students, but on the other hand, they are no longer able to provide knowledge to them. So, the question I always had was: What should we do to make these huge numbers of students and young people able to innovate, because innovation





- as one of my friends mentioned before me - is the locomotive of economy and the real engine of it, for every economy in the world, not just the economies of Western countries. I have spent many years in my teaching career and I have prepared and conducted many research and studies aimed at making students and young people innovative. As for innovation, I would like to talk about two types of innovation: the first is about everything that will create new opportunities for human lives such as new inventions, technical processes, new projects, and so on. The second type of innovation is the creation of innovation and completely new ways of solving our problems in such areas as education, health care, welfare, and other social aspects. It is true that we are born and have this ability to think and innovate instinctively, but the question remains: what can we do differently to make young people more creative in their societies? In other words: to make people capable of finding appropriate solutions to problems? Unfortunately, the time will not

be enough for me to review some of my research on this subject, but I will just mention few glances in this short video clip on the screen, where you can learn all the information about education, school and classes in the future. This video has become available on the Internet and on YouTube, so you can easily obtain it. I would like to focus on some key points or ideas. I say that the real challenge facing education today is not only improving our education system, which is more like the assembly line for products in factories. There is no assembly line in the education system which leads to good educational outputs, the educational process will be useless as long as we do not add new values to this assembly line. In the knowledge-based economy, the same applies to this area; it will not be useful without new values and innovative ideas. All we do is to add courses, curricula and information that soon evaporate from the minds of students upon completion of the study or immediately after midterm and end-of-school examinations. Consequently,

the real challenge is the need to re-imagine or create a new vision for education in the age of innovation, and as we prepare a new vision of education in the age of industrial revolution that we are now living. Let me emphasize here two basic principles: first, the results or actual outputs of the educational process should be considered, knowledge content within the education system remains of course important, and no one can argue. The second principle is that students' skills and abilities are also a priority, and perhaps most important. At this point on skills, I would like to point out four very important skills: critical thinking, positive analysis, participation and cooperation, communication skills and, most important, problem solving skills. What is important for the latter is that the student is able to identify the problem before he is able to solve it, with the need to accommodate all the different points of views and ideas that are being raised, because this point is very important in the context of rational and scientific thinking. Before I conclude, let me talk about another point that is no less important, and I consider it more important than the one I have already referred to. It concerns the issue of motivation that is necessary to encourage students to achieve good results at school, but what I mean here with motivation is punishment before reward, this is a known axiom. Innovation is also an essential part of students' motivation and encouragement to demonstrate their mental abilities. Equally important



is the need to inculcate the moral principles of students and their sense of responsibility and to develop the value of deep respect for the views and differences of others. These are in short the important results that are necessary for the era of innovation and not just for education, but for all aspects of our lives. No less important is the need to work in the spirit of teamwork. Students should learn this ability or skill, especially since they have communication skills that are obvious, of course, they can work in one team, which helps them to think collectively more effectively than the way of thinking which does not achieve the positive results achieved by collective thinking. The critical analysis process is also necessary here, and is enhanced by the ability to listen carefully and record what students may be interested in, while focusing on good listening in the classroom. However, let me also focus on a point I consider the most important on the subject, which is related to motivating students constantly. Now it's time to show you one of my most recent video entitled: "Most Likely to Succeed", which is now available on the Internet but requires a license to display and buy the rights to view it, as it takes not more than five minutes. Let's watch this documentary on education and innovation in the field of teaching and urging students to innovate. (You are watching examples of inventions created by students in a school along with comments of the teachers supervising these students' work.

Thank you!

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Session

Education technology ... and the future

The UAE is an example for using technology in education development



Moderator: Good evening, I am glad to participate in the second day of the Knowledge Summit 2016. I am happy to come to your country to talk about the technology of education and the future. I am the founder and chief executive officer of Gourou, a non-profit organization. The technology was developed by an engineer who worked at Google. I also worked on Google Maps. I have a comprehensive idea of everything about Google, so I developed this technology and founded a non-profit organization funded by Bill Gates Foundation, Google and a large number of parties, and our product is technology. Let's imagine that we have GPS for learning, we can identify our status from learning, our destination, and the path you will take to reach your final destination.

In the learning trip you may lose the output you should have taken, so the GPS will guide you to the right path; to ensure easy access. The challenge is that education focuses on the destination by defining the curriculum and the criteria for which the student will be tested, and therefore he must succeed. However, it does not focus on the student's position in learning and the progress he is making. This is the fundamental shift that makes technology a successful tool. All the GPS tools used represent the data you place on Google maps, to guide us to the right path of learning through accumulated levels of information. If the application user wants to know any details about the course you are seeking, the application will provide him with all the information about this course. The most important reason for the success of the GPS system on smartphones is that it contains all the sites on Earth, but in education systems this is not possible, so we developed an infrastructure to develop learning systems and coordinate all sources of resources and information, and we developed a Google learning

engine. Last year, we worked with a school of most low-income students and we managed to achieve 2.9 growth rates in one year. 80% of the students who went up to this level were below their true level and managed to exceed three years of growth in only one, which is an evidence of the possibility of reaching huge achievements in terms of educational attainment if we use technology as required.

Now, I would like to present to you my speakers: His Excellency Eng. Hussein Al Hammadi, Minister of Education of the United Arab Emirates, H.E. Dr. Elias Bou Saab, Minister of Education and Higher Education of Lebanon, H.E. Dr. Talal Abu-Ghazaleh, President of the Arab Organization for Scientific Research Networks and Education, Mr. Katsuhisa Sagisaka, Director of International Affairs Division, MEX, Japan, and Mr. Tony Wagner, an expert and a resident of the Harvard Government Innovation Lab.



H.E. Hussein Al Hammadi: Peace be upon you, I would like to thank H.E. Jamal Bin Huwaireb, Executive Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, for organizing this summit to discuss topics related to the national Arab issues.

Innovation in education is an urgent necessity to meet the needs of students.

Brothers and sisters, the horizons of innovative education are well known in the educational community. Innovation in education is no longer a luxury but a necessity dictated by the needs of a student who learns in a world where developments and events accelerate. However, we are confident that students will need advanced skills and knowledge. This requires a new look at the school, the teachers, the scientific material, the evaluation, the role of the parents and the community, and most important is the student himself, especially since the connection between technology and innovative education is understandable and natural due to the vast potential that technology allows in this context. The innovative education, which is implemented consciously and integrally, and technology is one of its foundations will make the student the focus of the educational process, increase his motivation to learn, transform the role of the teacher into a guide and facilitator of the education process and expand the material system or curriculum beyond the textbook. It is well known to everyone that in the UAE we have a national strategy for innovation, one of which is education.

The commitment to achieve the knowledge-

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based economy is an essential part of our national vision, and we know that the way to do this is to make innovation a community-based engine that encompasses the education sector. We also believe that the achievement of innovation in education requires thinking in a holistic and integrative way to encompass all components of the educational system.

UAE School contributes to Inventions and Innovations

At the beginning of the school year, we launched the concept of the UAE School based on the requirements of the strategic vision of the state and its agenda for the next stage. Innovative education in the UAE School will produce an innovative student who will be an innovative individual in the future. This requires the existence of an innovative educational system that includes curricula and methods of education and assessment in accordance with the requirements of 21st century skills and a supportive technological infrastructure. The curriculum of the UAE School has been thoroughly reviewed, where new and developed materials have been developed, and English language, mathematics and science curricula have been adapted to proven global curricula. Based on our belief that the teacher is the basis for the success of any development in the education system, the development of teachers'

capacities, including teaching methods using of technology and creative thinking is ongoing and intensive. This year, we will also begin to conduct national examinations in basic subjects, soon to include all students in the country, both citizens and residents, in public and private schools. This is our commitment to achieving and ensuring a comprehensive education system for all. These examinations shall be automated to ensure best use of data in taking the right decisions and follow-up students' performance.

Educational revolution to bring about change in the educational sector.



Moderator: Now with the speech of H.E. Dr. Elias Bou Saab, Minister of Education and Higher Education in Lebanon.



H.E. Dr. Elias Bou Saab: Welcome again and I

am so happy to participate in this session. The Arab world is currently in need of an educational revolution to bring about the positive change and development in the education sector and to benefit from the successful and distinguished experiences in this field. For example, The UAE has gone a long way in the development of the educational process and curriculum, and has a distinct experience in this area thanks to the reliance on modern technology. The real development of education sector requires the introduction of modern technology, and the creation of model schools with the necessary infrastructure to achieve the maximum benefit from these technologies. It has the ability to keep abreast of the technological revolution currently taking place in the world, while existing curricula do not address the special requirements and the increasing needs of some students. At the current moment, we need to work on many aspects that will develop the education sector, including giving much interest to teachers and provide them with new skills that keep with the development in the world, and we also need to develop curricula to be able to cope with rapid changes through the provision of interactive curricula that provide renewable information to achieve outstanding results that mimic the future rather than the past.

Moderator: Ladies and gentlemen, allow me to welcome Mr. Katsuhisa Sagisaka, Director of International Affairs, Ministry of Education of Japan.



Mr. Katsuhisa Sagisaka: Hello, I am Katsuhisa Sagisaka from the Department of International Affairs of the Ministry of Education in Japan, I am concerned with the matters of education and scientific technology. Today, I will review Japan's position on the issue of education support. Japanese language is written in kanji letters, which are symbols of Chinese and the Japanese Katakana. In addition to the use of ionic characters, the Japanese educational system was founded in 1872 and the current system is built. In the period between the 17th and the 19th centuries, Japan currently has many initiatives to develop the education sector by focusing on analytical thinking and motivating



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students to use easy and simple language that preserves the aesthetics and basics of Japanese language. Japan is currently providing schools with libraries in order to consolidate and disseminate knowledge among members of the society and various groups. The percentage of schools which have these libraries is 60%, while the government plans to reach 97% in primary schools and 98% in secondary schools. In 2001, the Japanese government promulgated a law to adopt children's reading, developed by the concerned parties. The law provides a supportive environment for children, allowing them to practice reading at any time they desire, as well as the government's national plan for reading activities in children. In the national plan.



based economy. Currently, digital education has a high prevalence rate. This is due to the prevalence of distance education among the refugee population in the various Arab countries due to their living conditions. This spread will lead the refugees to take the lead in developing education methods and acquiring knowledge in the future. Internet users conduct more than 5 million searches through Google, watch 2 million views on YouTube, and send more than 230,000 e-mails in one minute. These numbers prompt us to emphasize one fact, which is: education in the future will be through the Internet, which has become a right for every human being, at a time its spread is a measure for the progress rate of societies.



Dr. Talal Abu-Ghazaleh: I welcome all of you and I would like to thank the organizers of this great Knowledge Summit. We are facing a revolution and not a traditional change, and we are aware that e-learning will lead the future, so we finally announced the first Arab Federation of Digital Universities to support the trends lead by many countries in the region toward the knowledgeModerator: Allow me to welcome my last guest in this session: the co-founder and co-director of the leadership change group at Harvard School, and the first fellow of the Creative Education Program at Harvard University's Centre for Technology and Entrepreneurship, Mr. Tony Wagner is an expert and a resident of the Harvard Government Innovation Lab.





Tony Wagner: Hello, I am honoured to participate in this session to talk about the technology of education and the future. Today's schools were founded a century ago to teach and develop arithmetic skills for large numbers of children at the same time. Since I started working in education 45 years ago, the issue of the new knowledge-based economy and the need to keep up with these knowledge-based skills have been raised, but few realized it is impossible to create a full economy system based on knowledge only, because it is constantly changing through all the devices connected to the Internet; the result is that knowledge is essential but not sufficient. I wonder a lot: what must we do constantly to develop the abilities of children and young people to become innovators, and that is the motivation for our economies in the future? Let me point out that I have discovered two kinds of innovation, one that involves the creation of new inventions and innovations such as Bill Gates and Steve Jobs, and the other focuses on finding innovative solutions to problems of all kinds: community problems, health problems, education or sustainable development. So, the challenge lies in re-imagination of education to cope with the era of innovation the same time we imagined hundred years ago. It is also necessary to pay attention to basic knowledge, as applied in the Finnish educational system, which encompasses many interdisciplinary subjects.





Day Two

Fourth Session

"The Arab Reading Challenge ... The Future of Knowledge"

The Knowledge



 The Arab Reading Challenge and its role in achieving reconciliation between different generations and reading Knowledge...Present and Future 2016

The Knowledge Summing

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Speakers

• Dr. Hassan El-Bilawi Secretary General of Arab Council for Childhood and Development

• Aiman Amin Jarrah Deputy Secretary-General, Arab Reading Challenge

• Muna Saeed Al Kindi Manager of the first round of the "Arab Reading Challenge" initiative



Dr. Khalid Wazani Economist and Strategy and Knowledge Advisor at MBRF

Dr. Wazani is currently the Economist and Strategy and Knowledge Advisor at the Mohammed Bin Rashid Al Maktoum Knowledge Foundation (MBRF). Previously he was CEO and chief economist/strategist at the advisory assembly company "Issnaad Consulting". Prior to that, he served as General Manger & CEO of "Saray Aqaba Real Estate", "Taameer Jordan Holdings" and "Darat Jordan Holdings". Between 1999 and 2006, Dr. Wazani held different official positions in Jordan including Director General for the Jordanian Customs Department, Advisor at the Royal Hashemite Court and Director General of the Social Security Corporation.

Dr. Wazani is a prolific author with many published researches, studies, and books. He is an active member in various professional and scientific forums and councils and a board member in a number of corporations and companies.







Dr. Hassan El-Bilawi

Secretary General of Arab Council for Childhood and Development

Dr. Hassan El-Bilawi is Professor of Sociology of Education, Helwan University, Cairo. He is Chairman of the Teacher Education Committee at the Supreme Council of Egyptian Universities, Ministry of Higher Education, and is the Secretary General of Arab Council for Childhood and Development.

He was Dean of Faculty of Education for various universities in Egypt and the UAE and was senior Advisor to several international institutions and authorities in education and development. He authored and co-authored many publications on educational sociology and policy. Dr. Bilawi was senior researcher of two Arab Knowledge Reports issued by the UNDP and Mohammed Bin Rashid Al Maktoum Foundation.

He is member of Several Regional and International Professional Organizations. Dr. Bilawi was Project Director of the "National Strategic Plan for the Pre University Education Reform, Egypt, and Senior Advisor of The Project "Guiding Framework of Performance Standards for Arab Teachers".

Dr. Hassan Bilawi holds a PHD in "Sociology of Education", University of Pittsburgh, USA

Aiman Amin Jarrah

Deputy Secretary-General, Arab Reading Challenge

Aiman Jarrah holds a bachelor degree in Islamic Sharia, majoring in Islamic Jurisprudence and Legislation from the University of Jordan. He also holds a Higher Diploma in Educational Studies from Yarmouk University, Jordan and has more than 25 years of experience in teaching and administration, during which he progressed from the position of teacher, to head of section and acting principal.

Aiman Jarrah is a member of the senior management board and Deputy Director General at the School of Scientific Research in Dubai. He attended various courses in public administration, education, and training of trainers.



The Knowledge

Muna Saeed Al Kindi

Manager of the first round of the "Arab Reading Challenge" initiative

As a member of the "Arab Reading Challenge" initiative's team, one of the initiatives launched by His Highness Sheikh Mohammed Bin Rashid Al Maktoum and aimed at encouraging reading among school children, Muna contributed to setting the standards of evaluation which were followed by nomination and judging committees in order to select the winning schools and students.

Muna was also involved in the "Reading Nation" campaign, which targeted enriching the index of available books at over 3,000 school and public libraries across the Arab world. Backed by the Public Diplomacy Office, an affiliate office to the Ministry of Cabinet Affairs, Muna worked on bolstering cooperation between local publishing companies and the public sector for the higher purpose of encouraging a culture of reading. This unprecedented cooperation generated 25 million Dirhams, which were used to supply and distribute publications to libraries.

Muna started working for the Ministry of Cabinet Affairs back in 2008 and is currently the Director of Events at the Public Diplomacy Office.

Muna started working for the Ministry of Cabinet Affairs back in 2008 and is currently the Director of Events at the Public Diplomacy Office.





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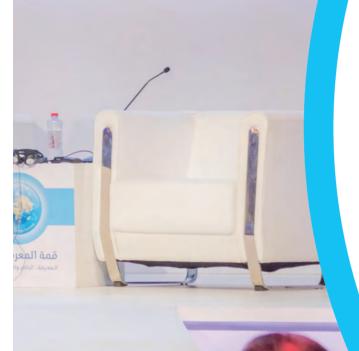


H.E. Jamal Bin Huwaireb, Managing Director of the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, asked me to join the foundation as an advisor. I first heard about the Reading Challenge from the daughters of my sister in Jordan. In addition, when I came to the UAE I found this marvellous initiative. Daughters of my sister read 50 books in the competition of Reading Challenge, which resulted in reading 175 million books. His Highness Sheikh Khalifa Bin Zayed Al Nahyan, President of UAE has announced 2016 the year of reading. Moreover, a law has been issued to make reading a standard in every house. The competition of Reading Challenge is the start on which we will built the coming projects of reading in our Arab world. Therefore, the most capable persons to speak about this issue, those who have worked on that project. I am pleased to begin with the manager of the Reading Challenge for this year, who had a great role in the initiative of «Reading Nation», which provided 25 million dirhams to distribute books on all libraries. Moreover, publishers have participated a lot in this project. In addition, I would like to tell you that Qindeel Printing and Publishing services of the MBRF, has had distinctive publications for the Arabian library.

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Knowledge





What we discuss now is reading and achieving reconciliation between different generations. Here, we will find two questions: how can reconciliation be implemented? What is the relation between reading and reconciliation? Reconciliation between generations through discussion establishes a mental interaction between people of the same society from one hand, and between them and the future form the other hand to establish a new and integrated society. The relation between the society and reading is summarized in five points as follows: discussion, social coherence, knowledge growth, social justice, and the future. I will speak only about discussion, social coherence and knowledge growth. However, what is the role of educational institutions, its relations

with reading and its effect on these topics? Discussion means knowing very huge amount of vocabularies and many ideas; therefore discussion emerges between people of the society. Moreover, culture changes of the daily vocabularies change. When we discuss and speak together the social coherence occurs. In addition, interaction with the text and authors occurs, points of views change, and areas of joint discussion appear. Moreover, when the discussion between the reader and the text and the author increases, interpretation appears and some people may find different meanings. Hence, continuous and flourishing knowledge emerges. Knowledge is the establishment of a mental concept of the individual through which he can interact with the society.



"Reading has a role bigger than being a process to obtain information from books, as it empowers young people to make mental judgments regarding problems of the present and obstacles of transformation to the future".



We faced a big dilemma, which the Arab society suffers from, and when His Highness Sheikh Mohammed Bin Rashid Al Maktoum was asked why now, He answered: Until when? This foresight cultural vision needs detailed plans. The project commenced with the study of the Arab reality, which was not an easy task. We have a project called the Challenge that has to reach everywhere. We have reached 15 Arab countries, and then we moved to Arab communities in exile countries. Then we addressed China and India for Arabic speakers to contribute to this project. Moreover, we had to prepare calibres for all Arab sister countries that helped in the growth and prosperity of this initiative. It is enough to say that the project is an Arab project launched by His Highness Sheikh Mohammed Bin Rashid Al Maktoum. In this march, there was a communication with Arab publishers, we explained the project objectives, and we were able to achieve our goal. In addition, we have reached the commencement of the reading project.



"When goals and objectives are as big as a nation, it needs a leader as big as a nation to achieve it. This is actually what happened with the initiative of His Highness Sheikh Mohammed Bin Rashid Al Maktoum in the project of the Arab Reading Challenge."





The sharp vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum to inaugurate the project of Reading Challenge was a comprehensive vision, which is not limited only to the United Arab Emirates; however, we wish to exceed other countries. Moreover, we have seen that the nation of "Read" does not read, and generations have been raised in a way that make them do not like reading and knowledge outside the field of study; the thing, which negatively further affected the knowledge-based field in our societies. In the middle of investment regression in the most important element, the human element, we found reports of human development that give freaking rates about reading rates. Arab countries have low rates in reading of individuals. However, the recent increasing rates are still modest. Here, I would like to refer to the Reading Index in which

148 Arab citizens participated from all the Arab countries. According to the Arab Index, the Arab citizen dedicates 35 hours yearly for reading, 20 of them free hours away from education, while the European citizen reads 200 hours per year. Therefore, there was a necessity to interfere quickly. There comes the initiative launched by the United Arab Emirates to disseminate knowledge and reading love for children. Almost 3.5 million students, boys and girls, engaged in reading about 150 million books. One may say: the student may leave the book after the competition. We can say for those distrustful people, the nature of the challenge is based on the continuance of monitoring the performance through the following. First, Jordan and Tunisia have participated in providing cheap books to the age category between 6 and 12 in order to encourage them to participate in the coming initiatives. Second, directed reading, and third, involving fathers and mothers in reading. Fourth and final, establishing initiatives to enhance the entire knowledge-based project, such as the campaign of "Reading Nation", through which 80 million dirhams were collected to provide books for homeless and emigrants. In addition, the National Reading Strategy 2016-2026 that aims at establishing reading priorities in society.

> Moreover, the National Reading Law, which had a significant role in building the reading project in the state. A day without learning a new thing is a missing day from my life. Knowledge is a condition of life conditions and reading is its guarantee to respect our culture and legacy because we are definitely more powerful and opened to the world.

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"The Arab Reading Challenge has succeeded in creating unprecedented reading state on the level of school students in the Arab world in one year."

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The Session

«The Arab Reading Challenge ... The Future of Knowledge»



Moderator: Good afternoon all. We welcome you all to this very important session, to recognize initiatives regarding reading support and enhancement, especially, the initiative of the Arab Reading Challenge and its role in achieving reconciliation between different generations and reading.

Therefore, the most capable persons to give in this area and speak about this issue, those who have worked hard to achieve the vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai in the initiative of the "Arab Reading Challenge". I am pleased to begin with the manager of the Reading Challenge, Miss Muna Saeed Al Kindi, who played a great role in the initiative, in coordination with the nomination, arbitration, and monitoring committees. In addition, she has worked in the initiative of the "Reading Nation" that aims at enriching three thousand school and public libraries in the Ministry of Cabinet Affairs. Please, welcome Miss Muna Saeed Al Kindi.



Muna Al Kindi: Honourable attendance, peace be upon you. The launch of the "Arab Reading Challenge" in last September by His Highness Sheikh Mohammed Bin Rashid Al Maktoum, UAE Vice President and Prime Minister and Ruler of Dubai, was driven by a vision of a leader, who used to see what is beneath the apparent picture. Moreover, it was driven by the leader's fear on the nation of "Read" that does not read to become lately associated with intellectual and civilized backwardness. In addition, that meant human backwardness and intellectual closure that contributed in the spread of extremist practices and ideas, which unfortunately became a reason for the exclusion of a whole nation, the pure Islamic



civilization, and looking at our Arab countries as a suitable place for ignorance, fanaticism, and racism, religious and group discrimination.

The Arab Reading Challenge has succeeded in creating unprecedented reading state on the level of school students in the Arab world in different grades in one year, whether in public or general sector. In addition to the response of more than 3.5 million students, boys and girls, to read almost 150 million books in a phenomenon that took the students away from the seizure of the schoolbook and turned the book into a passion they get reward for instead of being a heavy duty.

The nature of challenge is based on continuance through following up, monitoring and measuring results, and activation of coming courses to involve further participation from students and schools and approve more effective mechanisms that will enrich the Challenge and serve its objectives through several steps. The most prominent step is the establishment of periodical book fairs that serve the Challenge. This has actually commenced through the launch of the book fair of the "Arab Reading Challenge" throughout the United Arab Emirates and some Arab countries. In addition, the activation of the "Directed Reading" that implies a scientific or knowledge-based value with significance, in such a way that establishes the base to create a knowledge-based base, which serve data of future knowledge economies. Moreover, the organization of several family awareness campaigns

that aim at involving fathers and mothers in reading, in addition to developing periodical reading programs, projects and initiatives whether within or outside the frame of Challenge in order to get results that serve the entire knowledge-based project.



Moderator: thank you Miss Muna for you speech. The big Arab project, the "Arab Reading Challenge Project", has been able to prove its success to attract the most important category throughout the Arab world; the category of youth, children and adults. Moreover, to make the book a part of their lives.

I wondered a lot about what the project referred to regarding the participation in reconciliation between generations, knowledge and reading to include history, geography, science, culture, human values, tolerance culture in this reconciliation to make it an integrated reconciliation.

Actually, I was pleased when I knew that Dr. Hassan El-Bilawi would participate and attend this session, who is a Professor of Sociology of Education, Helwan University, Cairo. He is the Chairman of the Teacher Education Committee at the Supreme Council of Egyptian Universities, Ministry of Higher Education, and currently is the Secretary General of Arab Council for Childhood and Development. He also worked as an advisor and



expert in several international organizations. Please, welcome Dr. Hassan El-Bilawi.

Dr. Hassan, the matter of reconciliation is important. We, I mean non-specialists, may not understand that issue. However, I think that you can give us a close point of view in the matter of reading and reconciliation with culture through your experience in this area.



Dr. Hassan El-Bilawi: Thanks a lot DR. Khalid Wazani, I really thank you for this introduction. Actually, we have worked together in the report of Arab Knowledge with H.E. Jamal Bin Huwaireb, Managing Director of

the Mohammed Bin Rashid Al Maktoum Knowledge Foundation, Hany Torky, PHD and everyone. In reality, what we discuss here is reading and achieving reconciliation between generations. This issue raises two questions, the first one is: what makes reconciliation between generations? In what way? The second question is: what is the relation between reading and reconciliation if we analyse the concept of reconciliation to its elements? We can answer the first question by saying that when we say reconciliation we mean reconciliation of generations through discussion, which establishes mental interaction between people of the same society and between them and the future. This means that generations also have to reconcile with the future, which is a coming situation against an existing one to achieve progress.

Moreover, reconciliation between generations and each other establishes a new and integrated society. Therefore, here comes the answer for the second question; what is the relation of that issue to reading and the initiative of reading in the Arab world? When we started the analysis, we found ourselves in front of five vocabularies as follows: 1- The word of discussion, 2- Social coherence, 3- Knowledge growth, 4- Social justice, 5- The Future. I will be limited to discussion, social coherence and knowledge growth and I will not mention social justice and the future because we do not have enough time. However, there remains a major question; what is the role of our educational institutions and regimes and its relation to the reading initiative and its impact on these three elements of achieving the development? We have mentioned before that reading is related to enriching the discussion; however, what is the discussion about? When our children read different books that reached 50 million books, they go through several vocabularies and differences in visions and opinions. Therefore, there is a state of discussion between the text and the reader, the reader and the reader, the reader and the father and the mother and between the entire society. Therefore, we have thrown a stone in the standing water. When we talk to each other, we discuss about our daily vocabularies and words. What is the meaning of work? What is the meaning of health? What is the meaning of education? What is the meaning of food? What is the meaning of happiness? What is the meaning of loyalty? What is the

meaning of sincerity? What is the meaning of love and marriage? In addition to other vocabularies. The culture changes when meanings of daily life change. However, culture does not change and there is no social change unless our daily vocabularies and its meanings change. Moreover, if our daily vocabularies change, we make relations between understanding and common sense and the one vocabulary has one meaning in the society; then social coherence occurs, generations make links together, the nation is mutually linked and looks at the future. Then, what we call national and social harmony occur. This does not happen unless our children interact with the text through reading, and interact with several authors to get more opinions. When children interact, there will be a mutual area of understanding, social coherence occurs and discussion happens with the text. The text here will be controversial because texts are enormous in 50 million books, i.e. there is more than one opinion for the same problem. When my son reads more than one text, he becomes in a direct relation with criticism and creativity and progress is achieved. When discussion arises between the reader and the text, the discussion shifts between the student and the teacher. Here, we come to another question; what is the relation between all these issues and knowledge growth? The major question here is: what is the relation between these issues and knowledge and reconciliation with knowledge? The reader makes a relation with the text, the author and the differences between authors, who wrote the fifty million books.



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Here, there will arise a recognition for concepts and interpretations, i.e. the text will be meaningful and the meaning may be controversial. Accordingly, when interpretation occurs, and in that case only, knowledge is produced. Our children are always in a state of interaction with information. Knowledge emerges in the mind of a human being, who interacts with it and with the text. In the morning, we have seen criteria of knowledge and reading initiative, in addition to the Reading Challenge Project. Before the discussion it was just an information, however, after we started the discussion and peruse the initiative, the knowledge began. Knowledge is a growing process. Therefore, reading is larger than being a collection of information from books; it is a process of youth empowerment to build a mental intellectual pattern, and then make rational judgments regarding problems of life, work and future. In the West, this is called enlightenment, which means that the person became able to interact with the society.



Moderator: If we want to know further about the initiative of "Arab Reading Challenge", it is better to listen to Mr. Aiman Amin Jarrah, Deputy Secretary-General, Arab Reading Challenge and member of the senior management board and Deputy Director General at the School of Scientific Research in Dubai. He delivered various courses in administration, and education. He is one of the in-house staff in this national project the "Big Arab World". Mr. Aiman, Miss. Muna has provided several information and Dr. Hassan made a great presentation regarding reconciliation. We would like to know the details of this project.



Aiman Amin Jarrah: In the name of Allah, the Most Gracious, the Most Merciful. Peace be upon you. We always say, "When goals and objectives are as big as a nation; it needs a leader as big as a nation to achieve it. This is actually what happened in the project of the Arab Reading Challenge." We faced a big dilemma, which the entire Arab world suffers from. We do not exclude any area from this cultural suffering throughout the entire Arab world. When His Highness Sheikh Mohammed Bin Rashid Al Maktoum was asked why now? He answered with a question; until when? That decision, which will lead to praised initiative and renaissance in reading throughout the entire Arab world in all Arab world schools. Moreover, it will exceed the borders and move to Arab countries that have Arab communities. In addition, it will reach Arabic speakers wherever they are. This foresight cultural vision needs detailed plans. When leadership gives directives and provides support, there will not be any excuse for any languid. The project of Arab Reading Challenge commenced with the study of the reality of the Arab reading. This study was not easy and was not for hindering endeavour of the staff. We are in front of a project called the Challenge; the Arab Reading Challenge, which needs to reach every school and every Arab student anywhere. Indeed, we moved that direction to include the Arab reader everywhere, and that what actually happened. We have reached more than 15 Arab countries, the thing that we were able to, in the recent political status that you all are aware of, achieve in this stage. After that, we moved with our objectives and programs to Arab communities in exile countries. Then we have addressed China and India, as an experiment, to foresight the future of Arabic speakers to participate in this project. The first challenge was in preparing local calibres in these countries to raise in order for achieving this project. We cannot cover all Arab countries with the required calibres; therefore, these calibres could be prepared in sister Arab countries. In this point, I would like to say that Arab sister countries have effectively participated in the success of the Arab Reading Challenge in the first year. All the doors were open in front of the project of the Arab Reading Challenge in any Arab country. Definitely, all reasons and conditions were arranged to make this initiative successful. In all Arab countries, it was just enough to say that the project of the Arab

Reading Challenge is an Arab project launched by His Highness Sheikh Mohammed Bin Rashid Al Maktoum; because His Highness Sheikh Mohammed Bin Rashid Al Maktoum has a presence in the heart of every Arab citizen and country. The Arab leaders that will raise the project of the Arab Reading Challenge in their countries have been prepared. Moreover, training and complementary courses were held in all participating Arab countries in Mauritania, Algeria, Morocco, and other countries, until we made sure that there would be persons, who will perform the coming executive steps for the project of the Arab Reading Challenge. Our agreement, to maintain transparency, was to make the competition a part of the Arab Reading Challenge project. Our agreement with all Arab countries was that the central committee of the project of the Arab Reading Challenge represented in General Secretary, would make the knockout in the participating Arab countries. This is what actually happened, at the end of April and May; we performed the final competitions of the project of the Arab Reading Challenge in all the Arab countries. During this march, there was a communication with Arab publishers and more than four meetings were held with Arab publishers. Through the meetings we presented the project and explained to the publishers their role, which we look forward to deepen this year, after all doors have been opened and honest competitions were implemented. We were able to reach what makes every Arab heart happy; we have moved one-step in the road of the project future.







Day Two

Fifth Session

"Youth... The Future With Arab Youth Ambassadors (20 Ambassadors)"

The Knowledge



- The Youth's View of the Future
- Challenges Facing the Youth in Areas like Education, Labour Market and Generational gap
- The Role of Youth in Finding and Applying Solutions
- Successful Initiatives to Encourage the Youth

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Speakers

• H.E. Saeed Saleh Al Remeithi Member of the Federal National Council, Chairperson of the Young Parliamentarians Forum in the Inter-parliamentary Union

• Ousha Salem Alsuwaidi Senior Developer, Experts and Consultants Office, Family Development Foundation

• Raha Hassan Muharraq The youngest Arab and the first Saudi and Gulf woman to conquer Mount Everest



Sarah Yousef Amiri Head of the Council of UAE Scientists

Sarah specializes in capability and new initiative development at MBRSC. She is the Science Lead on the Emirates Mars Mission (Hope Mission). She has recently been tasked with establishing the Space Science Division at MBRSC. Her primary role is to develop the first generation of UAE Scientists. In 2016, she headed the Council of UAE Scientists to further develop and strengthen the Science and Technology sectors in the UAE. Previously, Sarah was tasked with establishing the Advanced Aerial Systems Program. She led a successful development effort to fly a prototype High Altitude Pseudo-Satellite (HAPS), a UAV, in the world's busiest airspace. The project ended with a successful 24-hour flight, where the aircraft soared to the highest altitude of any aircraft over the UAE's airspace.



The Knowledge







H.E. Saeed Saleh Al Remeithi

Member of the Federal National Council, Chairperson of the Young Parliamentarians Forum in the Inter-parliamentary Union

Al Remeithi holds a Master degree in Information Technology and New Media from the United States. Soon after graduating, Al Remeithi joined the armed forces and served as an officer until he decided to pursue his political ambitions and run for a seat in the FNC. In October 2015, Al Remeithi won his seat on the Federal National Council to become one of the youngest ever members in the council.

Saeed Al Remeithi is distinguished by his consistent advocacy of youth issues and his keen participation international parliamentary in conferences and initiatives.

Ousha Salem Alsuwaidi

Senior Developer, Experts and Consultants Office, Family **Development Foundation**

Ousha has extensive experience in developing institutional strategies related to awards. She previously served as general coordinator for the International Award of Her Highness Sheikha Fatima bint Mubarak for the Arab Youth. She was head of the VIP section at the Abu Dhabi Islamic Bank for over five years.

Ousha holds a bachelor of Family Studies from the College of Humanities and Social Sciences at the United Arab Emirates University, and she is currently preparing for her master degree in leadership sciences.

Raha Hassan Muharrag

The youngest Arab and the first Saudi and Gulf woman to conquer Mount Everest.

Raha Muharraq is the youngest Arab and the first Saudi woman ever to conquer Mount Everest. As preparation for the attempt on the world's tallest mountain, Muharrag climbed Mount Kilimanjaro, 5,895 meters above sea level. Her second adventure is to reach the tallest mountain in Europa, Mount Elbrus in Russia, with more than 5,600 meters above sea level, along with a host of other peaks on South Pole and Mexico.



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Parliaments' role and the youth participation in it has been made less important, as they do not consider parliaments a mean to express their opinions. The youth face several challenges to involve in the political work, the thing that led to their absence in those parliaments. Let us look to the bright side, there are initiatives for the youth participation in the parliament work. We should mention that the youth have a will to participate in the political work, and we can prove that through their political participation on the social media. In addition, they need support. From the beginning of my nomination to the elections, I heard many negative words; however, these words have not affected me because I have the strength and the will. The youth have a special

character. Moreover, academic guidance gives the youth confidence. Moreover, the youth should be pushed to the top and we should help them. Many opportunities come in front of the youth; meanwhile some youth believe that work in the government is the base. I would like to tell them that the government employs only 2%, therefore, you should get rid of these old ideas. There are private institutions, companies and business, so, do not wait for support and start supporting yourself. Work is related to the certificate, however, knowledge gives the human being new dimensions. Moreover, the certificate restricts the individual in a certain field; therefore, horizons should be opened in front of the youth.



"The youth face several challenges that deprives them of participating in the political process. They are in a stage, where they need to continue their education, acquire skills and start their future."



I am here to tell you about the Award of Her Highness Sheikha Fatima bint Mubarak for the Arab Youth. The Award has four categories with the first category being the Creator Arab youth that aims to introduce creations of Arab youth in all fields. The Award is from the age category of 12 to 21. It is dedicated to six winners with the amount of 30,000 dirhams. The second category is the Creator Project from the age category of 12 to 21. It includes the category of the winning projects, and the prize amount is 40,000 dirhams. The third category is the Sponsor for Arab youth with the amount of 50,000 dirhams. The winners in this category are four foundations. If the youth listened to frustrated words, they will fail. Therefore, the youth should never surrender, and there should be persistence and deep endeavour for their ambitions. The youth need guidance to reach what they want. Some youth make the opposite of their needs; if they search for concision and you give them concision they ask for verbosity. The youth depend on the internet and technology to get the information instead of reading. Actually, I think that concise information is not good for the youth, the information should be delivered in a complete manner. In addition, obtaining the printed certificate is very important, therefore, we should not miss the printed certificate; there is a need to combine the printed certificate and knowledge.



"The Award of Her Highness Sheikha Fatima bint Mubarak for the Arab and International Youth emphasizes the importance of recognition of the outstanding achievements and capabilities of the young Arab youth."



As a mountaineer, it was difficult in the beginning to convince myself that I can achieve the impossible. The most difficult thing is to convince yourself with your capabilities and that was the first difficulty for me. The second thing that I faced after convincing myself with my capabilities, because my dreams were little bit different from the ordinary ones, was to convince the society and my family especially my father. For me he represented the society, if I could change his point of view to be an Arab mountaineer girl, I will be able to change the view of the society. The most difficult thing that I faced was not the cold weather, tiredness nor training; the most difficult issue was to convince myself first, then the society and my father, with the idea that I can do that thing. It was really the

most difficult thing that I faced. I will give you two advices, first do not be angry if someone calls you crazy and you did not find anyone to be interested in your dreams. Everyone, who took a new step, faced negative comments. Moreover, the best things that occurred in life came from the words of crazy individuals as people describe them. Therefore, do not be angry, there is no problem they do not understand. The second issue is that you should talk freely with your families about your dreams. You should be flexible and do not think that if you told your families about your great dreams they will not understand it. Families hold the keys for our dreams. What I wanted was exceeding the limits. However, even in my case, talking freely with my family was the secret not only to reach the peak of Everest, but also to reach the peak of all girls in the world and particularly in the Gulf area. Moreover, regarding people's opinions,



you should have the courage to achieve what you want and after that step, there will be nothing impossible.

"I have seen the society in my father and if I could convince him that a woman can climb the mountain, by this I could convince the society as well." The Knowledge Summit

The Session

«Youth... The Future With Arab Youth Ambassadors (20 Ambassadors)»



Moderator: I will start my speech with the following quote of His Highness Sheikh Mohammed Bin Rashid Al Maktoum "The youth are the power of nations and the hope to build a better tomorrow. Nations raise with their promotion. The future is built with their powers, capabilities and skills. Moreover, with their hands progress is steadily achieved towards a flourishing tomorrow for our recent and coming generations."

In the beginning of this year, the survey of Arab youth was published, which indicated that most Arab youth want stability. In addition, the first reason behind turning the youth to extremism is the need for opportunities and jobs. Therefore, fulfilling the needs of the youth is a basic matter for the future of the region. I am honoured to participate today in this session with three of the Arab youth, who are active in different fields: (H.E. Saeed Saleh Al Remeithi, Member of the Federal National Council, and Chairperson of the Young Parliamentarians Forum in the Inter-parliamentary Union. We have also Ousha Salem Alsuwaidi, Senior Developer, Experts and Consultants Office, Family Development Foundation, and Raha Hassan Muharraq, The youngest Arab and the first Saudi and Gulf woman to conquer Mount Everest. Peace be upon you all. H.E. Saeed Al Remeithi, what is the view of the youth regarding the parliament participation?



H.E. Saeed Saleh Al Remeithi: First of all, good afternoon, I am very pleased to be taking part in the summit today. There is no doubt that the participation of young people in parliaments is necessary. Regarding your question about the lack of youth participation in parliaments and

being a part of the political movement in their countries, unfortunately, the role of parliaments and the view of the youth to these parliaments became less important. In addition, the Arab youth do not consider these Arab parliaments important because, in fact, from one hand it may hide their presence. On the other hand, it does not care about their needs. They do not look at parliaments as a tool to deliver their voice. Let me, as a member in the Inter-parliamentary, talk about youth empowerment and the increase of youth numbers in international parliaments. There are several initiatives in international parliaments, particularly on the regional scale regarding the increase of youth participation in nomination for parliament elections. The youth face several challenges to join political work, such as the youth interest to establish their selves, study or work, therefore, they become absent in one way or another from the political work. Accordingly, it becomes difficult for the youth to join the political work, especially in the beginning. This thing resulted in their absence in international parliaments. Let us look at the bright side, recently on the global scale; there is further interest in the youth because they are the future, therefore, there becomes further interest in the youth. Moreover, we work on further empowerment of the youth, locally and regionally. In addition, there are several initiatives that were directed to the

youth in order to increase their parliamentary culture and the way in which they can change or help in the change of the parliamentary work.

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Moderator: Some youth look at joining the parliament as a hard matter and not a smooth one, how can we change this view?



H.E. Saeed Saleh Al Remeithi: That is true. The youth express their opinions through means of social media, which are a window to express the opinion and this is considered interest in the public affairs and policy. The youth have the will to participate, however, the existing mechanisms do not help them to express their opinions in the correct way. Many things occur in countries without asking young people for their opinion, and there are no surveys regarding issued legislations or matters that concern them. Young people have the ability to express their opinions, however, they need someone to lead them to the correct path. The Knowledge Summer Summer Summer Summer States of the second se



Moderator: Thank you. Raha, you entered an area that the Arab young men do not enter, what are the challenges that you faced when you entered that area?

cold weather, tiredness nor training; the most difficult issue was to convince myself first then the society and my father with the idea that I can do that thing. It was really the most difficult





Raha Muharraq: In the name of Allah, the Most Gracious, the Most Merciful. As a mountaineer, it was difficult in the beginning to convince myself that I can achieve the impossible. The most difficult thing is to convince yourself with your capabilities and that was the first difficulty for me. The second thing that I faced after convincing myself with my capabilities, because my dreams were little bit different from the ordinary ones, was to convince the society and my family especially my father. For me he represented the society, if I could change his point of view to be an Arab mountaineer girl, I will be able to change the view of the society.

The most difficult thing that I faced was not the

Moderator: How could you convince your father with this matter and change his point of view regarding entering this field?



Raha Muharraq: In the beginning, when I talked freely with him about the subject and told him that I decided to climb the mountains of the world I heard the most difficult word for me "No". He told me this is impossible. I thought I would hear "No", or "you are crazy". I did not take into consideration this issue as a negative aspect, however, I considered it a positive one and that I should convince him with my point of view. I decided to undergo further training and choose mountains that are more difficult. I changed the negative thing into a positive one, and this is the lesson that I have learnt; even if your family told you "No", this is not the end of the road. I convinced him with my persistence. It is not easy to climb mountains of the world and the most difficult is to convince my father with this issue. When he found out that I underwent further training, carried loads and woke early in the morning (4 Am), he saw my contentment, the thing that made him change his mind.



Moderator: Now we will move from mountain climbing to youth awards. Ousha, could you tell us about the program of Her Highness Sheikha Fatima bint Mubarak for the Arab Youth and the motivation method for youth regarding this program?



Ousha Alsuwaidi: In the name of Allah, the Most Gracious, the Most Merciful. Of course, I am here today between two extraordinary persons. However, I am here today to deliver the gift of Her Highness Sheikha Fatima bint Mubarak for the Arab Youth to our Arab youth; the International Award of Her Highness Sheikha Fatima bint Mubarak for the Arab Youth launched at 2011. Since the launch of the Award, it focused on enriching our Arab world with creative young minds through containment of creative youth. The Award is based on a group of awards that generally motivate the youth generation and encourage them to create, excel, innovate and compete. Please, allow me to get directly and concisely to the point of the Award categories. The Award has four categories; the first category is the Creator Arab youth that aims to introduce creations and innovations of Arab youth in all fields. The Award is from the age category of 12 to 21. It is dedicated to six winners with the amount of 30,000 dirhams. The second category is the Creator Project from the age category of 12 to 21. It includes four winning projects, and the prize amount is 40,000 dirhams. The third category is the Sponsor for Arab youth with the amount of 50,000 dirhams. The winners in this category are four foundations. The last category is Personal support to youth issues; a figure selected by Her Highness Sheikha Fatima bint Mubarak. That figure is honoured with the insignia of the award sponsor.



Moderator: Let us move from motivating the youth with awards to the United Nations Development

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Fund, which motivates the Arab youth leaders in the program of "Young leaders". I have some questions to ask them. The First question is for Munira; how do you see community participation of the youth?

Munira: Peace be upon you. I am Munira from Sudan, a representative of the Young leaders' initiative. I am proud that I have participated to improve my society. The youth have a role in taking steps towards change and they represent the youth around the world. In addition, they should take the opportunities to innovate and excel. Actually, we have a real desire to change and serve the society. revolution is better. Freedom volume was limited and they were not allowed to express their points of view. However, after the revolution, they engaged in non-governmental organizations and some of them established some local or international associations. Moreover, I have participated in initiatives inside Tunisia. The youth has played an important role after the revolution and their voice reached the decision makers in Tunisia; such as the Tunisian Youth Parallel Parliament, which aims at delivering the voice of the youth to decision makers.



Moderator: How can we encourage institutions to develop strategies for the youth participation inside their institutions?



Ousha Alsuwaidi: The International Award of Her Highness Sheikha Fatima bint Mubarak for the Arab Youth, which Her Highness dedicated to a category of institutions to support and encourage those institutions to develop strategies within



Moderator: Moving from public interest to society service or participation in non-governmental organizations. Amna, could you tell us your experience and the interaction of the youth in these organizations?

Amna: Welcome all. I am Amna bint Hussein from Tunisia, a researcher in geology and activist in and outside Tunisia. The youth is the basic and effective element, because they are in charge of changing the society. The status of the youth in Tunisia after the its programs in addition to initiatives that cares about the youth. These initiatives have found a good impact between institutions. We have already found in the three editions of the Award that there are institutions, which are not concerned with youth; however, they developed youth-related programs and initiatives within the strategies to support and encourage them to create leaders for their countries, whether in the United Arab Emirates or other Arab countries.



Moderator: The youth are concerned about another important thing and that is job opportunities. The youth go to the public and private sectors to get a job opportunity. However, there is another field, which is entrepreneurship; how can we open the entrepreneurship field for the youth?

Ghadeer, how did you use social media in delivering the message of the youth?



Ghadeer: My name is Ghadeer Ahmed, an Egyptian

activist and interested in the Arab innovation. Social media were available to us; therefore, through it I launched an initiative to protect human rights, because we do not exist in governments. I found a problem that all studies and resources are in English, therefore, I study my problem through the point of view of the West not from inside the state. Therefore, I used social media for Arab youth to enable them to talk about their internal status from their own perspective.



Moderator: How can we develop the society confidence in the youth and their points of view? How can we utilize young minds?



H.E. Saeed Saleh Al Remeithi: The answer is making the difference. If we could make the difference, seniors can find youth success in us. Any young man, who had the opportunity to be in a position, should remember that he represents all the youth. He should make a success story and be a role model for them, because he will be



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an important element in opening the way in front of the youth. I, myself, faced these frustrated words, however, with the help of Allah; I did not pay attention to it, although some people get frustrated because of these words. For example, in the parliamentary work, from the beginning of my nomination to the elections, I heard many negative words that can break the youth determination. However, if the young man has a strong personality, determination and an objective that he looks for, I do not think that these words may affect him.



Moderator: Raha, you faced peaks climbing, what is the motive that you give to the youth from your own experience?



Raha Muharraq: I will give you two advices. First, do not be angry if someone calls you crazy and you did not find anyone to be interested in your

dreams. Everyone, who took a new step, faced negative comments. Moreover, the best things that occurred in life came from the words of crazy individuals as they describe them. Therefore, do not be angry, there is no problem they do not understand. The second issue is that you should talk freely with your families about your dreams. You should be flexible and do not think that if you told your families about your great dreams they will not understand it. Families hold the keys for our dreams. What I wanted was exceeding the limits. However, even in my case, talking freely with my family was the secret not only to reach the peak of Everest, but also to reach the peak of all girls in the world and particularly in the Gulf area. Moreover, regarding people's opinions, you should have the courage to achieve what you want and after that step, there will be nothing impossible.



Ousha Alsuwaidi: I have an opinion that if the youth surrender to frustrated words, because we sometimes met obstacles and felt frustrated, they will not achieve anything. Moreover, these

words should be the motive that pushes us to achieve dreams and objectives, because the one, who believes in himself, will achieve what he wants.



Moderator: The youth look for concision and smooth information. How can we deliver the complete information to them?



Ousha Alsuwaidi: Some young people make decisions that are contrary to their needs. If they search for concision and you give them concision they ask for verbosity. The youth depend on the internet and technology to get the information instead of reading. Actually, I think that concise information is not good for the youth, the information should be delivered in a complete manner.

Interventions

Tarek Hassaan: Most initiatives represent nothing to the Arab youth, why do not the Arab youth read the complete information?

Nawal Ali: Why do Arab youth disregard voluntary work?



H.E. Saeed Saleh Al Remeithi: The youth have a special character, and different points of view. You talk about the academic guidance, which is generally a challenge to the individual in the whole world. For example, the Arab youth before making a decision, such as "scholarship or travel", should fell confidence. I disagree with you, I do not blame reading only, and I speak about recent communication mechanisms in academic guidance. These mechanisms should be different, i.e. communication with the youth should be through different ways. Contrarily, we

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should cooperate with them, communicate with them face to face, take their concerns seriously, and do not push them in a direction that is not suitable for their desires.

Regarding the second question, many opportunities come to the Arab youth; however, it needs personal motive. The person studies and puts in consideration that he will work in the government. However, if we look at statistics, we will find that the government employs only 2% of job seekers and 98% go to the private sector and self-employment. My advice to the youth is this: free yourselves from this idea and do not depend on the hope that the government will support your work in order to succeed. Many companies in Silicon Valley in the USA have been established without direct support from the government. Meanwhile, we wait for government support in order to create and produce. Several inventions in the world became global thanks to individual efforts. The idea spreads, despite of the opposite conditions. My advice to the Arab youth is not to wait for support and support yourselves.

Ousha Alsuwaidi: My brother, Al Remeithi said that young man should support himself. I say that young man cannot support himself. I can support myself with my faith in my skill. However, support needs financial support or support of decision makers as the young man may find difficulties in supporting himself. High-powered individuals should take into consideration the necessity to support the youth. In addition, ideas that need support should be supported and put in the correct path. I would like to tell the speaker, who said that the Arab people do not read the entire form; that from our experience in the Award, we found that the youth do not actually read. They just depend on the guick and easy thing, the phone call. Through the phone call, the youth recognize that all the oral information exist already in forms or websites. The youth are very excited to the extent that when they find an information or something that may be useful; they directly use the phone to get more information, even before completing the reading of the thing that exists on the website. We have seen people, who need guidance and someone to listen to them correctly to be on the correct path.



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Knowly

Day Three

First session

Knowledge and the Future of Health



- The future vision of the elements affecting human health
- The psychological Health 0
- **Health facilities** 0
- **Diagnosis and treatment** 0
- The future of fighting chronic diseases in light of recent discoveries
- The impact of technological development on medical sector.. Pros & Cons
- Emerging Technologies in Genetics, Robotics and Nanotechnology

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Speakers

• Prof. Mohamed Ghoneim Professor Emeritus of Urology at Mansoura University, Egypt

• Hugh Herr Associate Professor, Media of Arts and Sciences, Health Sciences and Technology, MIT Media Lab

Daniel Kraft

Physician-Scientist, Inventor, Entrepreneur and Innovator



Dr. Jamal Mohammed Al Kaabi Director of Social Development Sector, Office of the Executive Committee, Executive Council of Abu Dhabi

Dr. Jamal Mohammed Al Kaabi currently serves as the Director of Social Development Sector in the Office of the Executive Committee of the Executive Council of the Emirate of Abu Dhabi. He holds MBBS degree from UAE University and MPH degree from Johns Hopkins University in the US. He participated in the Government Summit, which was held in Dubai. He is a former presenter of the famous health show in MBC TV called "Green Apple". Currently presents "Think About Health" TV Show on AbuDhabi TV Channel.



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Prof. Mohamed Ghoneim

Professor Emeritus of Urology at Mansoura University, Egypt

Ghoneim obtained his M.B., B.Ch in 1960, Diploma of General Surgery 1963, Diploma of Urology 1964 and M.Ch. in urology 1967, all in Cairo. He obtained E.C.F.M.G from London in 1972 and an honorary MD from Goteberg in 1988. In the 1970s, Ghoneim was a Registrar at the department of urology and general surgery at South Mead General Hospital in Bristol, UK; Clinical Fellow in Urology at Memorial-Sloan Kettering Cancer Centre, New York; and Research Fellow, Urodynamic Lab. Dept. of Urology at the University of Sherbrooke Medical Centre, Sherbrooke, Quebec, Canada.

Ghoneim has received many awards including the Fleix Guyon Medal from the International Society of Urology, the Arab Pioneers Award from the Arab Thought Organization, the Harry Spence Medal from the American Association of Genito-urinary Surgeons, Mubarak's Scientific Award, the Arab-American Medical Association Award, and the Saint-Paul Medal Award from the British Urological Association, among others.

Ghoneim is member of several prestigious international medical associations, and has been a visiting professor in universities all over the world. He was the Director of the Urology and Nephrology Centre in Mansoura, Egypt from 1983 to 2002.

Hugh Herr

Associate Professor, Media of Arts and Sciences, Health Sciences and Technology, MIT Media Lab

Hugh Herr is Director of the Biomechatronics research group at the MIT Media Lab. In 2011, TIME magazine coined Herr the "Leader of the Bionic Age" because of his revolutionary work in the emerging field of Biomechatronicstechnology that marries human physiology with electro mechanics. A double amputee himself, he is responsible for breakthrough advances in bionic limbs. Herr authored and co-authored over 150 peer-reviewed papers and patents. In 2014, his team designed his own bionic legs, the world's first bionic lower leg called the BIOM Ankle System, which according to the Journal of Neural Engineering and Rehabilitation has been clinically shown to be the first leg prosthesis to achieve biomechanical and physiological normalization.

Herr's accolades include the 13th Annual Heinz Award for Technology, the Economy and Employment; Prince Salman Award for Disability Research; the Smithsonian American Ingenuity Award in Technology; Innovator of the Year Award, and Inventor of the Year Award; the 2016 Princess of Asturias Award for Technical & Scientific Research. Hugh's story has been told in a National Geographic film, Ascent: The Story of Hugh Herr; also featured in CNN, The Economist, Discover and Nature.

Daniel Kraft

Physician-Scientist, Inventor, Entrepreneur and Innovator

Daniel Kraft is a Stanford and Harvard trained physician-scientist, inventor, entrepreneur and innovator. He has over 20 years of experience in clinical practice, biomedical research and healthcare innovation. Daniel chairs the Medicine track for Singularity University and is Founding Executive Director for Exponential Medicine, a program that explores convergent, exponentially developing technologies and their potential in biomedicine and healthcare.

He has multiple scientific publications (Nature and Science) and medical device, immunology and stem cell related patents through faculty positions with Stanford University School of Medicine and as clinical faculty for the paediatric bone marrow transplantation service at University of California San Francisco.

Dr. Kraft is the inventor of the MarrowMiner, an FDA approved device for the minimally invasive harvest of bone marrow, and founded RegenMed Systems, a company developing technologies to enable adult stem cell based regenerative therapies.

Daniel Kraft was recognized as one of the most inspiring leaders in Life Sciences, as determined by the readers of Pharma Voice 100. His various TEDTalks have over 1 million views.



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Dr. Jamal Mohammed Al Kaabi "Now, we are with a group of experts, who will speak in this session about their experiments and contributions which have made a quantum leap in the health sector. I am pleased to present to you: Dr. Daniel Kraft, a physician, scientist, inventor and innovator who has more than 20 years of experience in medical research and vitality and has a distinctive invention in the field of medicine, which is the Marrow Miner device, a certified invention by «Food and Drug Administration»





I would like to address the future of health care and the developments that have taken place in recent times, especially technology. As you can see from the words mentioned here in this Summit, this was the main inspiring and stimulating factor for development in the field of medicine and the health sector in recent years in Dubai, which was a very rapid evolution. Now we can use new technology in the service of medicine and health care in terms of work to improve the diagnosis of disease processes at the lowest cost, accelerate the process of getting results, and find out how we can become part of this comprehensive medical development. We pay a lot of money in order to find solutions for the diseases we suffer and health problems, and these actions come in response to the health problems we suffer. Unfortunately, this happens after being hit by these diseases, such as: heart disease, blood pressure and lung diseases without having full and adequate information about these injuries. Basically, I am a doctor specialized in cancer diseases, I always advise my patients to be more interactive to know all the details of the diseases that affect them, not to wait to be a reaction to them. The Marrow Miner device has made a tremendous development in the field of medicine and health care in general. It is the development that was more noticeable in areas such as heart, neurological, lung, bone, liver, kidney and other diseases that are showing now on the screen in this presentation. These developments- as indicated- included many different countries and regions around the world, particularly the United States and the West. This has resulted in the shift of motives, values and costs borne by the patients against the treatment of diseases. There is no doubt that the developments

in communication devices such as mobile phones have also been reflected positively on the medical sector and health care; where these devices have been used in the service of health care, the «iPhone» which I carry is an old fashion and was replaced by models of better features and options to serve the areas of medicine. It is certain that this invention, as is the case in inventions related to communications will help make services in the medical sector and health care faster, smaller and less expensive, and will also accelerate these services. Most importantly, this stunning development would make a digital revolution in the medical data and related tests and the results of laboratory tests, vaccines, drugs and medical history of the patient, environmental and other factors, so that we would have what might be called the digital medical revolution or health digital revolution that depends on this new device, then we will have what is known as the medical mobile phone. With this development in collecting medical information together through this device, you can imagine what will be the future of medicine and health care in the coming years; as the equation will completely change from being a health care now for diseases to health care only in the future.

> All these technologies will change the current image of the medicine sector. This is not limited to Dubai or other areas elsewhere in the United Arab Emirates only, but also extends to many other countries of the world. Moreover, this technological development will lead to overcoming the challenges facing the health

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"Hospitals will continue to operate in the future. However, a fewer number of beds will be there, since we will be healthier, not needing to visit hospitals."

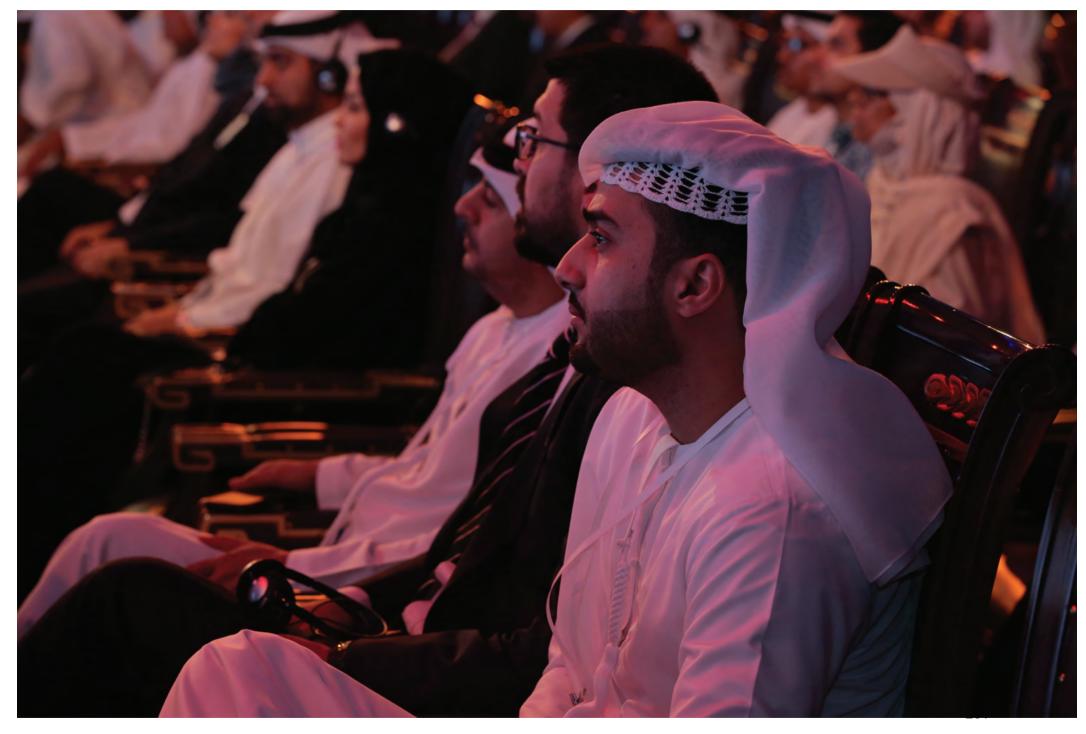
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sector in terms of high costs and access to health care services.

Therefore, now we have a lot of useful information that you can use for yourself, your children, your parents and others. How can we apply all this on the ground? I say in response to this question: We can benefit from the experiences of other innovators. For example: «UBER» Application of global car services and transportations has not existed ten years ago, but it has achieved global prevalence now, so others may follow its track in the health sector around the world. The world UBER service began to prove itself in the field of medicine and health care in terms of linking it with these domains; where it became easy now to have access to physicians and nurses services in this global service, especially in the United States and many countries in Europe; where it does not require more than pressing the button to make the physician come to your house. But what is important here is how to make the most of this technological development and integration of the methods and tools of innovation by: expectations of future studies, governance, critical and analytical thinking, innovation of solutions in the field of medicine and health care. Let's move then to another topic which is health and prevention. As you know that genetics is very important in medicine, where genes can determine our health, as they also have

a significant impact on our behaviour. Now there's a lot of micro and small devices which a person can wear in his wrist in order to know the speed of heartbeat and measuring pressure, diabetes, cholesterol levels, salts and measurements of body functions. It is also important to note here that modern communication devices such as «iPhone" affect the body posture and standing of the person who uses them frequently. So, we can say that these devices and others such as devices that create waves and headphones have a significant impact on our behaviour. Micro devices can be used in measuring rapid breathing for example and identifying mouth viruses infection that are harmful to the breathing process. Examples of technological development in the field of medicine and health care is the innovation of what is now known as smart houses that can monitor and control the process of breathing for the residents, and to identify the performance of heart functions, pressure, diabetes and others. In brief: Under this constant evolution, medical data and information stored in «iPhone» can be linked to the medical record for each person. This technological evolution can be utilized with the help of fitness instructors, for example, in order to keep our bodies in good condition, or to find out any changes in the level of diabetes, pressure and others.









"The Nano-Technology is achieving a remarkable advancement in defeating disabilities and paralysis. It offers us the Bionics, artificial organs that are implanted in tissues."

Peace be upon you, I am a scientist and director of the research group of mechatronic in the laboratories of the Massachusetts Institute of Technology, and a pioneer of artificial limbs in the US. Based on this introduction, I do not build bridges, but I build artificial limbs for human beings. I stand before you here for the second time, where I participated in the Knowledge Summit in 2015. As you can see I am wearing artificial legs, with which I can run, dance and move as easily as I want, without any obstacles or problems. Today, I will talk to you about this new scientific and technological field, which is called "Bionics". So, what is the meaning of Bionics? It means tissue design, whether vehicles and components of natural tissue, or artificial components, so that it is completely integrated and transplanted into the body in order to activate the human capabilities to return to its normal and customary level, or expand more than this level to exceed this level beyond the natural capacity. Perhaps it is ironic that we know about industrial components more than we know about the natural components of the tissue in our bodies. A few years ago, in collaboration with my colleague Bob Dennis we designed a floating robotic machine ran by the tissues of living muscles. That robot had the ability to swim to a certain extent with the help of Nitrate and Oxygen. In the future, a time will come in which we will understand the artificial components as much as we understand natural tissues. When the architect begins to design something, it usually asks whether it will start the building process depending on specific components and elements of his choice or not. He also will ask whether this part of the machine should contain natural muscle tissues or in other form of tissues. However, there is a part of this machine takes the form of hybrid, i.e., a living part and another non-living. We in this new society create a new nature that gives us new bodies that will help us enhance human capabilities that will exceed the limits of our physiological needs. For this purpose, recently we established the Centre for extreme Bionics subordinate to (MIT) Foundation. As my colleague said in his speech before me that we see, in the field of modern medicine, a great convergence between modern technologies and medical practices in many aspects of data and processes for disease diagnosis, analysis and thought and opinion

patterns, and others. Therefore, the most important characteristic of the new centre is that it combines studies and researches on nanotechnology, robotics, micro and manufacturing components of tissue ... etc. We have four systems dedicated to addressing the problems of disability of people: The first program is how to obtain the data and tools pertaining to how the brain works. The second is the desire to get information about the body from inside and its precise functions. The third relates to building the body parts and artificial limbs like legs. The fourth specializes mainly in the reform processes of organic and vital parts in the body, using genetic techniques and processes. Here, I would like to give you a detailed idea of these programs and how they work, and what has been done by the (MIT) Foundation in this domain. For the brain, if we look at this image of the brain showing on the screen, we find that it consists of billions of tissues and cells; there are different types of cells and tissues that are also do different functions of the body. These functions and this diverse group of cells and tissues are too complex and form a real challenge for us to develop new tools to understand its mechanisms and functions within the brain. Recently, we reached sophisticated methods for the treatment of brain disorders through computers by using mechatronic, and by taking a new drug that has no side effects. It has become possible to invent a new method for

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the treatment of brain disorders and interact with them in the way you can deal with individual cells inside the brain. What I would like to say here in the light of the above is: in order to understand the brain and re-engineer it genetically, we had to design what is known as the human brain map. We must understand the composition of the brain on the basis of the Nano-scale. But what about the dynamics associated with this matter? You may all have heard about genetics and the revolution it brought in the world of medicine in recent years. Let's imagine that we exposed the brain tissues to solar panels in order to send electronic waves to them to turn into mechatronic elements. Here, you can use what is known as the common sensors that help promote the cells responsible for the functions of reading and writing in the brain. We are also working on the development of parts to be planted inside the brain that help provide the brain with electrical charges to re-engineer it. In fact, there are many modern applications and uses in this area as we work with a number of laboratories, including Alan Horsager Laboratory and Lajos Laboratory for Neuroscience. If we move to talk about getting information about the body from inside, we find that in the case of someone like me of amputated legs since decades and two artificial limbs were installed for him, I use a very developed method to how they work. I wear electronic limbs, which are great; each limb has

three computers, not real computers, but they are microchips. Each chip has twelve sensors to monitor positions, acceleration, speed, temperature and power. Then, decisions are related to algorithms to control the engine and in the upper muscle movement. Every step I make depends on the electric power. This is the battery that I charge every evening, it helps me to control the walking speed and in providing me with power; therefore it is fascinating. The device contains a lot of information about me; therefore it understands well the movements that I want to make. In the lab, we work a lot on the concept of neural control. We actually connect the muscles and the nerves to make connections with the computers. Anyone like me can easily control his electronic limbs. I hope that one day, I will be able to receive sensory feedback from the prosthesis to the nervous system, so I can really feel they are my real limbs. For people who are suffering from paralysis, they will regain their movement in a natural way; as the process of muscle activation is done by throwing a certain wave of light on the muscle required to be activated to move the limbs and restore movement to them. So, it is expected to eliminate the entire paralysis in the next two decades, and the future will witness amazing developments in this regard. The image of the person of amputated legs will not excite pity anymore, as he can overcome that technology. Finally, thank you and peace be upon you.







Thanks to H.E. Dr. Jamal. Gentlemen, peace be upon you and God's peace and mercy be with you. Thank you for inviting me to participate in this important gathering. I came from Egypt, but not from Cairo, since the capital represents an urban disaster. I came to you from a small town located in the northern part of the Delta that is called Mansoura (victorious), which was named for a story traces back to 800 years ago when the Crusaders came in a massive military campaign to invade Egypt while they were on their way to the city of Jerusalem in Palestine. The Crusade was composed of a large force of the armies of Germany, France and England, which is currently equivalent to NATO forces. At the head of this military crusade was King Louis IX, King of France. After the capture of Louis IX, he was not imprisoned in Guantanamo or Abu Ghraib prison, but was detained in the house of Ibn Luqman in the city of Mansoura. Three months after his capture, the Europeans collected a hefty ransom of gold to ransom the French king, but at that time, the Egyptian civilization began to decline. The huge ransom has gone to the Bank of Europe. However, a small amount of these funds was kept in Mansoura and were used to establish a small hospital for the treatment of neurological diseases and I had the honour to work in that hospital.

I would like to share some important points with you in the field of modern developments and applications that have occurred in the basic science of medicine; because this is the locomotive that moves all medical sciences and direct them. In this regard, I will focus on two major developments: First is nanotechnology and the second is the biotechnology. The first is to design, apply and produce devices that have physical, chemical and biological characteristics in terms of its micro size. One of the most important pioneers of Nano-technology in the world is Richard Feynman who obtained the Nobel Prize, who discovered that if the small material reduced and shrunk to 1/50,000 as the size of one hair in human head, this material will change in both the chemical and physical aspects significantly. For example, let's imagine that we have a piece of a delicious chocolate of dark brown colour, if we smash it into one thousand small parts, it will keep its colour and delicious taste. However, if we smash it to micro pieces at the Nano scale which equals 1/50,000 as

the size of one hair in human head, its colour and taste will not only change, but also the entire pieces will turn into a toxic and lethal substance. This is the basic idea in the science of nanotechnology. As for the uses and applications of science of the nanotechnology in the field of medicine, it includes several things, including disease diagnosis and treatment and minimizing the tools used in the treatment. There are many examples that relate to hepatitis and cancer diseases and others; where medicine is witnessing new horizons in the 21st century, such as modern emerging technologies, the nanotechnology, genetics and robotics. The use of nanotechnology has begun in the diagnosis and treatment of diseases using gold atoms in cancer treatment. With the emergence of robots, traditional forms of surgery began to disappear to be replaced by devices which are inserted into small holes to make a surgery inside the body. The dialysis machine in its traditional huge form next to the patient's bed in hospitals will disappear to be replaced by a small device which man wears to wash its kidneys while walking. Dr. Mostafa El-Sayed was the first Egyptian and Arab scientist to obtain US National Science Necklace to which eight prominent scientists were nominated in the US. On Monday 29 September 2008, the White House held a major ceremony during which the US President George W. Bush handed him the US National Science Necklace, which is the highest US

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medal in the field of science for his achievements in the field of nanotechnology by using micro gold compounds in the treatment of cancer. He said in the ceremony of granting him the Necklace in the US that this honour comes as a recognition of his contribution to the understanding of the electronic and optical properties of Nano materials and their application in the Nano-technology and his human efforts in interchanging between countries and his role in the development of the leaders of future sciences.

Currently, Mustafa El-Sayyed is the president of the Julius Brown Chair at the Georgia Institute of Science and Technology and the president of the Laser Spectroscopy Centre at the same institute. He was elected a member of the National Academy of Sciences of the United States of America and for 24 years he was the chief editor of the Journal of the

Natural Chemistry sciences which is the world's most important science. What is important here is that utilizing the huge development in genetics and genetic modification will contribute to the treatment of blood diseases, such as leukaemia and the elimination of infected cells. Through stem cells, cells can be taken to replace other cells to treat cancer, obesity and technology to cope with the insulin production, and have already

been adopted for the treatment of type 1 diabetes. Moreover, there has been a major development in recent years in the field of stem cells, which is the subject that everyone is talking about now. We know that these cells can be obtained from various sources, including tissues and cells of the foetus and others. The most important of these sources is called induced pluripotent cells, where a sample of cells such as skin cells - is taken and sent to the laboratory to be transformed into other cells or tissues. I am happy to say: In our Mansoura hospital laboratories, we have transformed some cells into other useful species that can produce insulin for patients by conducting a series of laboratory experiments. We also conducted successful experiments of these cells on some small animals such as mice before confirming their application to diabetes patients. It is also possible to use these cells to produce cells

> or other tissues similar to urinary bladder cells, and therefore used in the treatment of a specific deficiency or defect in the bladder of adults. In addition, there has been a dramatic development in the field of body organs and transplantation of these limbs, where the wellknown surgeon Anthony Attalah succeeded in reaching a method by which any person can replace the malfunctioned organ with another



"Our contributions to the future must focus on teaching materials of science, mathematics and rapid global development".



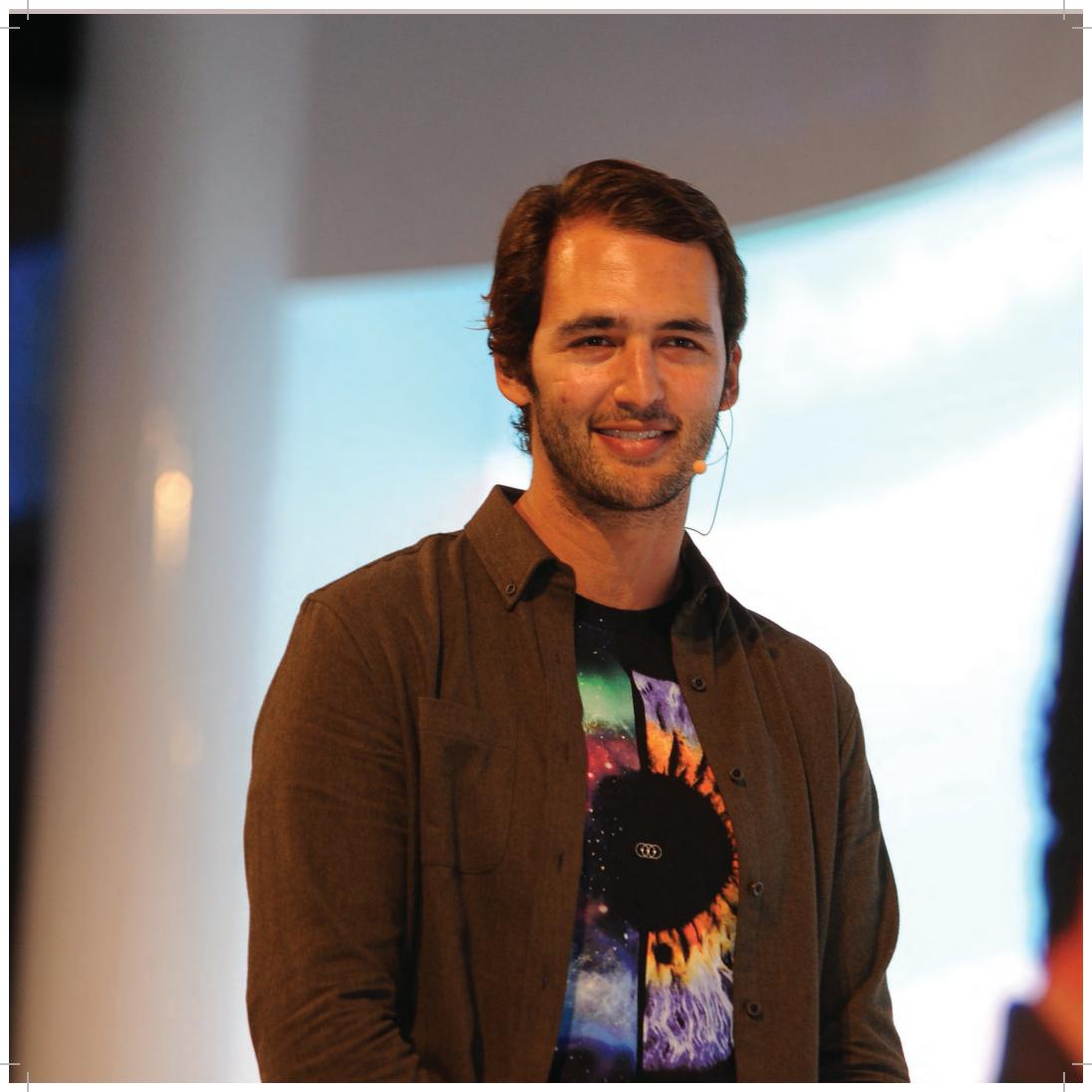
active organ. What is interesting about this method is that it is possible to request the member that the patient needs through the Internet. There are serious efforts and ongoing experiments in North Carolina in the United States to produce these different types of organs. As we have heard recently about the vaccine produced by a group of researchers at Harvard University, which helps prolonging the life of human beings and make them more active, focused and productive in their lives.

May peace, blessings and mercy of Allah be upon you.





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The Knowledge Summit Day Three

Second Session A Journey to the Future



• Highlighting the prominent futuristic trends in future technologies

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Jason Silva Media artist and TV personality, specialist in brain games

Jason Silva is the Emmy-nominated host of National Geographic Channel's #1 rated and Emmy-nominated series, Brain Games, seen in over 100 countries.

Silva is the creator of the web series "Shots of Awe," micro-documentaries exploring creativity, innovation, technology, futurism, metaphysics, existentialism and the human condition. In short: Philosophy, Science and Art for the YouTube generation. The videos, which "play like movie trailers for ideas," according to The Atlantic, have spread like wildfire across the internet and have been viewed more than 13 million times. Jason also created the web series "Future of Us" for AOL, exploring exponential technology and the future of humanity.

An active and prolific global speaker, Jason has spoken at TEDGlobal, Google's Zeitgeist Conference, keynoted multiple events for Microsoft, IBM, Adobe, Oracle, Electronic Arts, Honeywell, PEPSICO, Intel, Dolby and many more, all over the world.

From 2005 to 2011, Venezuela-born Silva was a presenter on Current TV, the Emmy-winning, independent cable network started by former U.S. Vice President Al Gore, where he hosted, wrote and produced more than 100 hours of original content.







Thank you for having me again in Dubai, for knowledge is the most important thing in this world, and I think that Dubai represents this evolution of knowledge. There is a lot of knowledge we need to pursue and know, I have a passion for technology and inventions because they penetrate the things we used to new things. Knowledge is what we want to know. In Africa, we use the stick to reach the fruit. We made the tools and the tools came to help us after these long centuries. Technology came to tell us about the changing of the world and what we must do. The mobile phones you carry in your pocket are thousands of times more powerful than the computers that used to occupy a whole room in the past. We can do a lot and change the world for the better.

I want to show you some videos that talk about optimism and the future which is what I can see

in Dubai. Let's watch the first video: Look at the technology around us and what they can do to change our lives. We've been able to send small signals hold many meanings, robots can access space, and inventions and technology go beyond the limits. People often say to me do not talk about technology, but to talk about the human body and concrete. I say that the biology within humans is amazing. DNA can make us understand the human body. We can also reconstruct genes and treat many diseases. Therefore, Google spent millions of dollars investing in biology in California. Imagine your ability to manipulate genes and create a disease-free world. The world will be like a paradise on Earth. It depends on how we use technology and how to control things through computers. We can transform it into a worldcontrolled world. We are the ones who control the world and our minds control things around us. We can also fix the mistakes in biology. Technology can warm our homes or deform them, where this

depends on our use of technology. Biology is the control of genes, which is the programming that controls our bodies. A new ideal world can be created free from diseases. We can also heal ourselves and create an ideal world.

We must let fear go away and move forward to control the world around

the software modules and we can control those things in our real world so that the whole world would be at our finger. We can imagine what we want in our minds and then apply it on the ground, and Dubai is a good example of this, where you imagine what you want and then make it a reality, we are making the world.

us. The Internet simulates what is in nature. The

nature of the two is the same, computers can divide

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The models are what we make on computers and then turn it into reality. Look at the ground from the plane. It is like a motherboard or electronic chips. Everything is similar. There is no duality between the world and technology, but they are one thing. Every two days I update software applications on my phone and this is what we needs to do to make education better and people better. If we build buildings incorrectly, it can affect our health, make us unhappy, and cause us diseases and depression. We must list things we care about, such as sports or making



"Dubai represents a shining example in the application of future technologies, whose advancements have trespassed the limits of place and time." people happy. These things overlap and you can find things in the world that can benefit your services. Passion:

How can we find life that is full of passion? You must put a list of things you feel towards with passion and see how they intersect and overlap and achieve a purpose



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and a goal in life and then start to apply it and pursue. We have the technology that tells us what is happening inside our minds. Google Inc. is trying to find a technology that helps humans. Children in Africa have mobile phones newer than the mobile owned by the President of the United States twenty years ago. The following video: How to define a millionaire? A millionaire is not a person who owns a million dollars, but the person who affects the lives of a million people who invent and make a difference in the lives of millions of people. The Ah movie: The word which a person releases when he feels astonished with the inventions which he sees and influence in his life. When I came to Dubai and went up to Burj Khalifa, I only found the word "ah" because of the achievement I saw. We all can become millionaires when he affects the lives of others. You can make a difference and add a meaning to life through inventions, tools and technology. What is the meaning of exploration? It is to discover the importance and the meaning of things around you. How to explore the world and become alive, how do we change what is around us for the better? Thank you all very much!

I am glad to receive your questions and reply to them. As I see, there is someone who wants to ask, could you please raise your hand and take the microphone.



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Audience Interventions



A question: First, I welcome you again here! There is no doubt that technology has brought about amazing developments in our lives My question is: How do you see that relationship between us and the world of technology now and in the future, especially with the development of artificial intelligence and creating a lot of inventions and introducing robots to many areas in our lives? Does it mean that human intelligence will become something minor compared to artificial intelligence?



Jason Silva: No. I think that human intelligence will become a secondary matter, but I think that the values we have about the role of time in our lives will change somewhat. We have seen this happens with the onset of the industrial revolution, several decades ago, where the concepts of work and jobs have changed a lot and the relationship between man and machine has changed, which is the same thing that we see happening at the moment. We think of ways and new methods to fill the time in our lives and make the most of the value of time until we achieve the goal that we want, make money and keep the life cycle in a permanent and continuous movement. Here, we can find that the functions and forms have seen significant changes in the past decades, thanks to the great technological development. For example, about 80% of the total US workforce was represented by farmers. Today, although they represent only 1% of the total labour force, they represent a very large proportion of the total production and national income of the country ».



A question: The truth is, I do not want to ask a question but I would like to comment on what you have said in your speech and the short film, which you played on the screen. As I said I do not have a specific question but I want to say that what I heard from you about foreseeing the future and the concept of the relationship between man and technology in the future which has added a lot of good ideas and useful information that have sharpened our minds. So, I thank you all for your explanation and clarification of these ideas and concepts.



Jason Silva: "Today's technology has developed dramatically, and the reason is that our mind and thinking mechanisms are also evolving to be able to deal with the current changes according to new mechanisms different from the slow method used by the mechanisms of thinking earlier. This is why we see the world rapidly changing around us because of technological development, also we should focus on understanding what is happening around us in the world. That is why it is necessary to distinguish between the linear change and the massive change that is taking place now. This change has led to major technological innovations and huge achievements. The demand-driven service revolution will become a vast world, with vital software updates, personalized medicines and artificial intelligence will increase the level of health care and well-being. The reliance on automated systems will enrich our daily lives immeasurably. Self-driving cars will appear everywhere, and the transport sector itself will be automated, clean and cheap. We will move to a

world where free access to property will prevail and the world will be accessible to all. I am talking here about genetics, nanotechnology and robotics that answer cosmic questions, future trends in the world of technology and different aspects of life, through the presentation of the journey of the future. Here we address philosophical rather than scientific ideas about the development of human intelligence, technical progress and common development, and the mutual influence between the machine and man in seeking to reach the next stage of human life. It is important to refer here to the evolution and the revolution that is taking place at the level of three revolutions in three scientific fields: Genetics, Nano science, and robotics, these fields are progressing in parallel and interrelated in the search and answer of these cosmic questions. Moreover, future technical changes require a change in lifestyles today as I have already pointed out, so that the benefits of future technologies, which the future technologies provide that transcend the concept of time and space will be achieved. People can innovate and reach what they have never been able to achieve in the past, so there is no fear of artificial intelligence, because it represents a major driver for the future, in conjunction with many developments, which everyone must prepare for. It is also important to emphasize that the impact of future technologies requires us to make changes in our lifestyles and thinking, especially education, because we need to educate our generations on mechanisms and ways to deal with future technologies. " In conclusion, I would like to thank you all, for the meeting!

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Day Three

Third Session Media and Making the Future



Session topics

- The concept of the media of the future and its role on one's personality
- Media of the future: advantages and disadvantages
- Traditional and electronic media
- Social media's impact on the media's role
- Media Boom
- Is electronic media contributing in dividing the future (youths and elders)
- Does media lead to individualism
- Does media affect social customs
- How will the media scene be in the future
- Science Fiction and its Impact on the Future of Humanity

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Speakers

- Ali M. Jaber Dean, MBRSC, AUD / Group TV Director, MBC
- Brandon Stanton Photographer and creator of the popular website HONY (Humans of New York)
- Jason Silva
- Media artist and TV personality, specialist in brain games
- Riz Khan
- **TV Reporter**



Caroline Faraj VP Arabic Services, CNN

Caroline joined CNN in 2001. Since then she has overseen the content and management of the CNN Arabic site, which she launched in 2002. In 2014 she led the site's comprehensive re-launch to embrace rapidly evolving consumer needs. Based in Dubai, she has overseen CNN Arabic during a time of great regional upheaval, over a period which has encompassed the US-led invasion of Iraq, the Arab spring and the rise of Islamist militant group ISIS.

Before joining CNN, Faraj's previous roles included senior political reporter for Al Rai - the leading Arabic daily newspaper in Jordan, managing editor for Englishlanguage newspaper the Jordan Times and regional correspondent for the US Defence News. She has also held positions in London for Dubai TV and in Jordan for Bahrain TV. She also conceived and hosted Jordan's first morning television talk show Youm Jadid.

Faraj was born in Amman, Jordan. She has a bachelor of arts in Journalism and Mass Communications - radio and television from Yarmouk University in Jordan and a master of arts in International Journalism from City University in London. Faraj is fluent in both Arabic and English.



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Ali M. Jaber

Dean, MBRSC, AUD / Group TV Director, MBC

Ali started his career at the Fine Arts faculty of Beirut University College, setting up their Broadcasting Department and teaching a range of courses in television production for eight years.

From 1987 - 1999, Ali worked as a Journalist covering the war in Lebanon and Iraq, and was the correspondent of New York Times and The Times of London, and Chief Correspondent for Lebanon and Syria for the German Press Agency (DPA).

From 1992 - 2003, Ali set up and managed Future TV and a youth-oriented sister channel, Zen TV. In 2004, he headed Dubai Media Incorporated (DMI), revamping and re-launching its seven national and pan-Arab satellite channels, after which he was appointed as DMI>s Managing Editor.

In 2008, Ali Jaber set up a Communication School at the American University of Dubai, and was later named Dean of Mohammed Bin Rashid School of Communication (MBRSC). In 2011, Ali joined MBC to become Group TV Director of MBC>s 20 channels. Ph.D. (In progress) Arab Satellite Television, King>s College, University of Cambridge, UK M.S. Communications, Syracuse University, USA B.B.A. Business Administration, American University in Beirut, Lebanon

Brandon Stanton

Photographer and creator of the popular website HONY (Humans of New York)

With over 22.5 million followers on Facebook and Instagram, it's no surprise that Brandon Stanton, the photographer and writer behind Humans of New York, has been called an Internet phenomenon. Stanton is one of today's most unique and influential storytellers, whose own story illustrates the power of the Internet, the value of storytelling and our desire to remain connected with real people in our increasingly technology-driven world.

In late 2010, he started the photography blog, Humans of New York. By incorporating short stories with the photographs, Stanton created a powerful force for good that brings millions of people from around the world together to reflect on the remarkable images and tales of everyday people.

In 2013, Stanton>s first book, Humans of New York, catapulted to the top of the New York Times bestseller list, where it stayed for 45 weeks. His new book, HONY: Stories, was released in October 2015 and was number one on the NYT>s bestseller list within two weeks. **Riz Khan**

TV Reporter

Khan has conducted a variety of high-profile interviews with a diverse range of issues. Co-anchoring the very first show on «BBC World Service TV News» in November 1991 gave Khan an acclaimed public visibility that grew even more when «CNN International» hired him in 1993 as its leading news figure. In 2005, he moved to «Al Jazeera» becoming a founding director of the now globally acclaimed network Al Jazeera English. His work as an accomplished speaker and moderator over the years has him in high demand at leading global events, and top corporate events for multinationals such as «Cisco» and «Standard Chartered Bank».



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Jason Silva

Media artist and TV personality, specialist in brain games

Jason Silva is the Emmy-nominated host of National Geographic Channel's #1 rated and Emmy-nominated series, Brain Games, seen in over 100 countries.

Silva is the creator of the web series "Shots of Awe," micro-documentaries exploring creativity, innovation, technology, futurism, metaphysics, existentialism and the human condition. In short: Philosophy, Science and Art for the YouTube generation. The videos, which "play like movie trailers for ideas," according to The Atlantic, have spread like wildfire across the internet and have been viewed more than 13 million times. Jason also created the web series "Future of Us" for AOL, exploring exponential technology and the future of humanity.

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From 2005 to 2011, Venezuela-born Silva was a presenter on Current TV, the Emmywinning, independent cable network started by former U.S. Vice President Al Gore, where he hosted, wrote and produced more than 100 hours of original content.







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Session

Media and Making the Future



Moderator: I am pleased to participate in this panel discussion with this wonderful group of distinguished talent in the media world, and first, I would like to talk about the subject of this session which we will discuss today, that is «Media and Making the Future». Which does make what? Does the media make the future, or the future makes the media? What is the affecting factor in this industry; companies, capital or people working in this field? We are now in a media world affected by the means of social media, such as Twitter, Facebook and Snapchat, which lead the media. It does not matter that the user of account on cyberspace is a specialist or not, he needs an account only to disseminate his ideas through it and that is what makes me worry as a journalist working in the field for almost thirty years. Am I supposed to be afraid of this technological boom or to be up to date with it and go forward, or set aside, if I could not do this? As you know in this part of the world, 60% of the population is young people, in other sense they can lead the media via their mobile phones; does this matter concern us, or make us feel that the future of the media will be characterized by much openness and transparency. Well, I will stop at this point and come back to the participants at this session to discuss this subject, and the honourable attends can ask any questions related to the topic of the session. I welcome the participants at the session again, and direct my first question to Mr. Ali Jaber. Mr. Ali, does the media affect the future or the future affect the media?



Ali Jaber: There is no doubt that the influence is mutual between the media and the future. The technology also has a significant impact on how we deal with things and the way that we use to learn and discover things. And in light of the accelerated pace of technological development and the inability to keep up with this acceleration, the adaptation will not be easy, and for me if we talked about the press side of the media. I see that the press depends on research and fact checking, then judge on the matter, being good or not, but these days the result is always disappointing. Media message may be affected by trends and what we see through the means of social media, and I was talking with one of my colleagues, who is working as a producer in Hollywood, about how we can support the students to cope with the technological tools that are expected to arise in the coming years, and to reach a way to help them to perform media message without being influenced by the prevailing social media climate. Here, I direct to Jason a question about how to balance between modern technologies that make us better human being and how they at the same time contributed in showing many bad aspects; because of the political approach of the topics on the social media; which popularized a climate of hate.



Moderator: Jason, can you answer this question within the framework of the media?



Jason Silva: We have seen in past years the serious consequences of the spread of the means of social media, which I consider to be a sort of a bubble, and I think that it was the cause of the emergence of tribal conflicts and aggravated their effects, as under this bubble all now live in a reality, which is guite different to the reality in which we live, and despite that the traditional media means have its problems, for example: If we look at the media discussion for CNN and Fox News, we will find that we are facing two different worlds, but on social media sites we are in front of wider horizons of express, which increases the impact and makes us staying in worlds, which are completely different and separated from the reality. Now, we overlooked the world through the screen, which gives us about the world information that may not be realistic. This confusion will be influential and

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obstacle at the same time when we moving to the future; these means magnify issues and events to the extent that contribute to create a state of terror among the members of the community.



Moderator: Thanks Jason, I direct my question to Brandon, as you are one of media platforms owners, who will decide what is the reality and who will determine it?



Brandon Stanton: When the social media began to spread, I said: Well, we are in the way of more communication and linking, and after a period, I become more doubtful in realizing my dream to communicate across the world. I see that the modern technology, instead of gathering us, is used in spreading the worst of us, and in the light of the spread of this technology and the accelerated pace of its development, we shall adopt ethics that keeping up with this development and contribute to the expansion of our horizons and the development of our capabilities; to be more efficient in dealing with these rapid changes in the future. I watched a video clip of you Jason, and I liked the energy that you radiated and your positive outlook. In addition, after seeing the charts, I thought that the ethics would not be able to keep up with the technological development.



Jason Silva: I agree with you very much Brandon, we also need a technological revolution, and a revolution of our consciousness.



Brandon Stanton: I am not optimistic, after twenty years of communication I discovered that the modern technology did not bring us closer together, but it now represents a mean of fuelling conflicts between us, and increase the hatred and murder among human beings.





Ali Jaber: Are we ready, from the ethical view, to keep up with these technological developments and changes? Of course, we are not ready yet.



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Moderator: I would like to ask Riz as he witnessed the emergence of satellite, the digital world, and the means of social media: is the media ready to keep up with these technological developments and changes?

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Riz Khan: From my experience in media, I see that people always come to the media with their own biases and ideas, and the problem related to information at the present time is that there is no way to sort out this information and know its validity, and the people shall learn how they can filter out information, and determine its validity. To me this is the greatest danger. I believe that the modern technology exceeded the limits of ethics, so in the light of the spread of the Internet, we must now learn how to deal rationally with information, and from my point of view, the traditional media does not keep pace with development.



Moderator: Jason, can it work this way? Can we work by this way in the future?



Jason Silva: I see that trying to slow down the progress of modern technology is one of the losing bets, we have no techniques that affect the development of new technologies or mechanisms, in order to deal with them or change previous technologies.



Riz Khan: How many schools that have a way to teach young people? How can they filter the information they find online? I have no idea about this.



Moderator: It is possible that these children teach other children later when they become parents, it can all work out this way.



Jason Silva: Given the virtual world and its sense of fear from the other and hate, is there a way to influence this behaviour, it may occur through what I called virtuality, there is, for example, a virtual film about the Syrian refugee camp, it is possible to give people an idea about the horrors of war in an efficient manner more than read a news in a newspaper or watch television shot in a small screen, and what is happened to those who watch this virtual content, is the so-called psychological transformation, when a man puts himself in the place of the person, whom is watching and feels as if he was in his place. I believe that we can influence the social media and convert it to the right path. Ali Jaber: Being a teacher makes the matter more challenging because you have to teach students how to deal with the media world in five years, and the interesting thing is that the media are changing while you are talking to your students. This issue is very difficult. The students shall be supported by a strong base of ideas and theories, and shall have the ideas, concepts, and philosophy. They shall be introduced to the way of work and required ethics before they join the media platforms, at which they may work. The matter is like driving a car, where you shall know the required rules and ethics, besides the driving rules.



Moderator: I would like to ask Brandon, as responsible of your media platform, and having a huge audience that comes to your platform to see and recognize what you present on this platform. Do you put a list of ethics that you must abide by when presenting your message to this audience?



Moderator: I would like to ask Ali; as a teacher of new generations, do you keep in your mind this technological development when you outline the curriculum or future planning?







Brandon Stanton: I am an example of what I said, since six years ago I was picturing the people in the streets of New York, and now 25 million people follow me and I met different people and let them tell their stories without checking or editing them, and this is the problem, but it represents at the same time the splendour and beauty of what I do. The process in my site does not work like the big networks and newspapers, such as the New York Times and CNN, because I am not doing this, as I need firstly to learn the journalism in academic manner just like you.



Riz Khan: The issue may be completely different if it relates to an editorial story, I think that if one person tells you a fake story, the responsibility here shall be on this person, and when anyone who knows this person sees this fake story, they will tell you the truth, and this is a way to do some checking. This is the difference from the traditional media, and I see that you have more freedom and responsibility as well.



Moderator: Jason, do you always face questions about the sources of information that you mentioned in your videos, I know that you mention it, but some people may ask you about the sources?



Jason Silva: I depend too much on quotes, but I finally make videos, which are not scientific research, but what I present is just videos to express my opinions and from the beginning I am not pretend that I have possessed a special scientific content, but I make a film to motivate thinking through the presentation of my own thoughts affected by what I read of books or researches.



Moderator: Ali, given the works of Jason and Brandon, do you see that this media method or format suits us here in the "Arab World"?



Ali Jaber: What do you mean by "here"? If you mean Dubai, then Dubai is different from the rest of the Arab world. Dubai has different inputs in this regard, different to the rest of the Arab world. What is presented by Jason and Brandon needs a different approach with the human development, and I am not optimistic in this regard; in other countries, other than Dubai or UAE, this issue needs a good Internet connection, and this is not available to the necessary extent, in addition to the lack of appropriate climate for thinking bravely and enthusiastically to take such steps; because the people find problems in meeting their basic needs, and I have not any positive view when I look to the situation in the Arab world from this side, but it is different in Dubai and UAE. In view of what presented by Jason and Brandon of the creative ideas; I see that UAE is a leader country in driving innovation and creativity in the world while maintaining ethics at the same time. There is no coincidence that His Highness Sheikh Mohammed Bin Rashid Al Maktoum, drives the wheel of innovation and creativity through innovation labs and others, and at the same time establishes ministries, such as the Ministry of Happiness, the Ministry of Tolerance, the Ministry of Youth, and the Ministry of the Future; these



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regulating bodies maintain a balance between the moral side and technological development, and add a responsibility to it. I emphasize once again that the United Arab Emirates is different from the Arab world.



Moderator: You live in a different part of the world, is it possible to heal the rift?



Riz Khan: I think that the people are connected to each other, and the problem of this region is that the United Arab Emirates is the only country that opens the horizon for technology and establishes infrastructure for the work of this technology and makes use of it, but other countries in the region do not have the infrastructure to take advantage of this technology. This is the cause of their backwardness. I like to visit schools and universities, and talk to the students to tell them that they live in a different and interconnected world; Facebook, Twitter, Instagram and Snapchat are programs that link the world together.



Moderator: I will open the floor for questions but I would like to ask these both gentlemen here: You grew up in an environment where no need to rely on the government, but on yourselves to present something new, what are your advises for the people around the world? When I talk to the media or do an interview, I care about the person sitting in front of me and not think about the questions that can be raised, what you are thinking about when you attend a conference like this? Thinking in documentation of it to say, "Look to know who we are and whom we are talking with", look to Jason and me; it is all about me. If the media wants to create audience, you must avoid the feeling of selfishness and tend to think of others, the more I get aside from my work the more I achieve more success; because I do not focus on myself or the photographs that I pictured for myself, but I think of others. I encourage people to use social media to add value to the community or narrate a story.



Jason Silva: Your words are very inspirational to me,





because the focus on what the people care about makes you feel that they are part of us. they will not hate the people who are far away from them, but they hate the different people close to them.



Brandon Stanton: What I do is tell the stories of people every day and I see tribal conflicts and clashes, etc. As an American who travels overseas, I ask people; do you know what protects USA? The people hate the different people that are living close to them, their neighbourhoods, cities, countries or their religion,



Jason Silva: There is a study about the things that the people like to share online, as we know that fear draws their attention: Fear of immigration, kidnapping, and other, but the things that excite them are the most things that they share online. When I spoke about fear of others, The Knowledge Summer Summer States of the Knowledge States of the second states of the second

I remember that I grew up in Venezuela and I used to go to an international school, I know that Dubai has the largest number of international schools, and this is a beautiful dream to me. I do not mean that the parents of the students were from another country, but the child himself is from another country, and these institutions lead to the harmony of the world. The most important thing that amazes and impresses me is seeing someone different from me wearing completely different clothes, but we soon find a common element between us, the world shall look for common things rather than the different things that differentiate between people.



Moderator: I will go back to talk about the Arab world, where I come from, to ask a question; does the technology affect the reading culture, that initiative launched by the United Arab Emirates?



Ali Jaber: I believe that we all tell stories, but it is different for visual technology; it needs the target or

subject and shall be written first and then imagined.



Moderator: Where are we heading?



Ali Jaber: Technology and its industry has been changed. Instead of sitting in front of the TV watching what the others wish, you can choose what you want at the time you want. Before that, I used to read books, but now I like to watch programs on the aircraft instead of reading a book. This greatly affected the reading.



Moderator: You lived here long ago. Can you advise the decision-makers to address the subject of reading?



Riz Khan: My daughter is 12 years old and she is learning languages not only from the media but also from reading or listening to the radio. Television writing is different from writing for radio and others, when I joined the BBC as a writer, I was asked to read newspapers. Writing to the TV is a description of the image and writing about it. The speed of writing reached 3 words per second, but the problem was that the editors did not have the time to write an article to the radio, then convert its text to suit the television broadcasting. The matter is completely different. Radio dependency on sound motivates imagination and description, so I still like listening to the BCC and Radio Dubai, because the style and language are absent from reality; so I resort to them on radio.



Moderator: If you want to formulate a story to produce, are you looking for it i television, the Internet, in the visual content, read an article or sitting in front of your phone?

Brandon Stanton: I like reading and I draw a lot of information from reading; so I read history every day for an hour or one and a half hours, as all people now are looking for information that contains the entertainment rather than getting it to know or attain value.

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Moderator: Do you think that people will resort to reading, or visual content?



Brandon Stanton: I take photos of people, and then write the story because it is much more important than the images. I think that I am a professional photographer. Because I can picture a bad image but with a good theme to highlight it. The photo may be good but the story may

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be not good, and in this case, it will be useless to me. The story is all what I am concerned about and this is the reason for Jason's success and mine as well. Therefore, if the image serves the story, this will be useful.



Jason Silva: I agree with you, the first video of me captured by an iPhone, was with a child for a period of 55 seconds, and has been seen by millions of people because they thought that it was funny.



Moderator: Back to the question: Do you think that you will resort to the book, the newspaper, or the visual content?

I will focus on visual content, but I will also resort to all of these means. I may like an article and then go to Google and so on.



Riz Khan: I may read a newspaper or magazine, and it draws my attention to a story in a section, which I do not like to read and then I start doing research on this story, and I do that repeatedly. The good thing of newspapers is that they are full of different information in many areas.



Jason Silva: I would like to browse the Internet to see strange things like alien creatures.



Moderator: We will start to take questions from this side. Jason: Would you like to answer this, Ali says that it is not possible. Can you make it virtual?





Jason Silva: If it is made of professionalism it can lead to success. Astronauts developed their knowledge through the virtual reality. I like to explore galaxies, but I do not like to go there on a rocket.



Moderator: I would like to thank you for this discussion, Jason, do you nominate a particular book?



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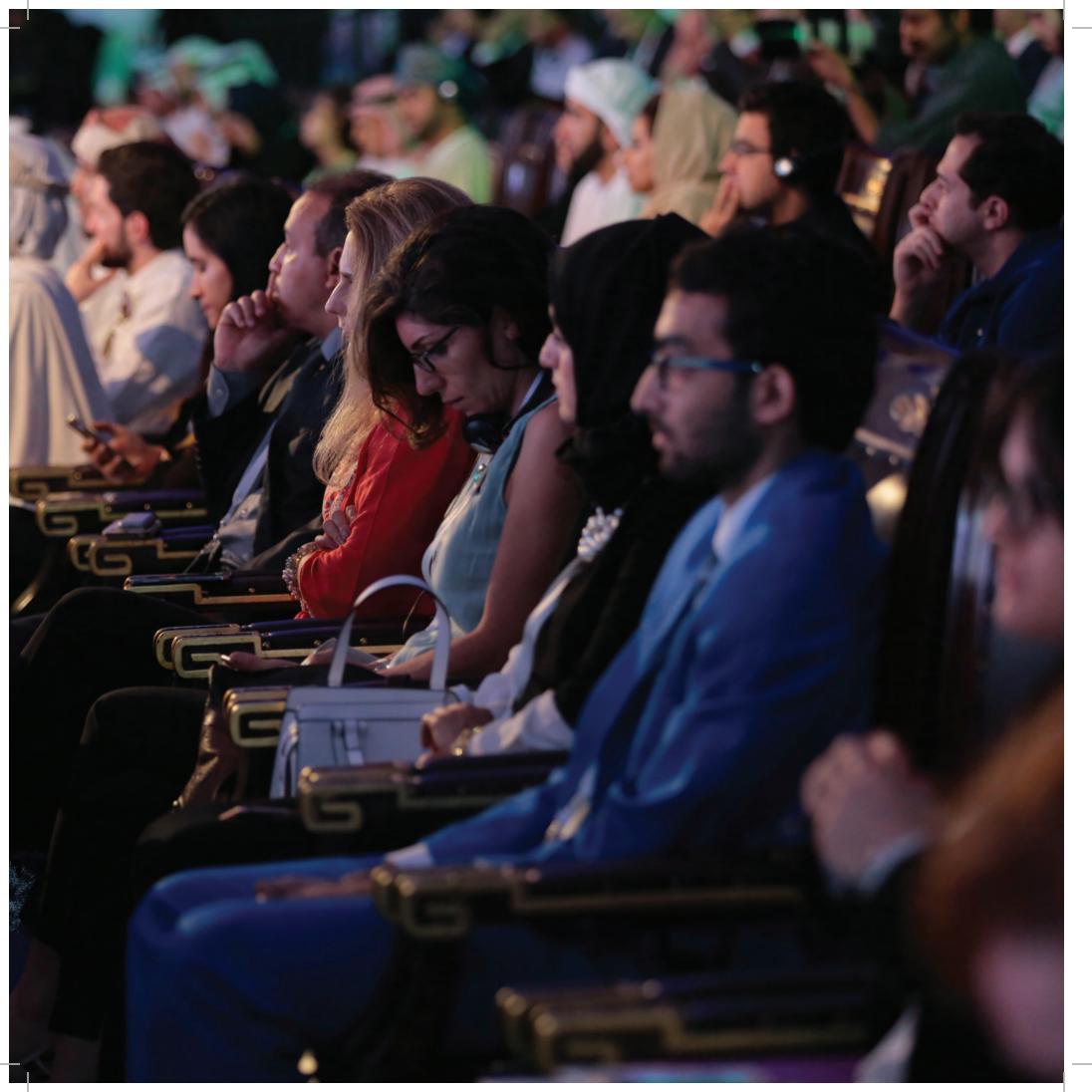
Jason Silva: There is a book of Eric Davis wrote in 1999, talking about the philosophy of technology.



Riz Khan: We cannot blame the technology, we must learn from others and teach them, the problem is not in the means, but in those who use it.

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Audience Interventions



Question: What worries me is the ethics, to which the technology must adhere.



Jason Silva: There are controls regularizing the technology can be applied immediately on Facebook in automatic manner and there is a self-education program, through which we can learn the controls and develop it.



Question: There is a lack of poise in the Western media dealing with issues affecting this area of the world in a comparison with the issues pertaining to other countries, could you explain that?

Riz Khan: When I worked in Al Jazeera Channel, some people were saying that you concentrate on some things instead of others; some of the media are biased towards the countries in which they started, which is normal because the media is also based on interests.

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Question: My dream is to become a journalist, how can I achieve this?



Brandon Stanton: If you want to be a journalist, do not look for one that gives you a story to write, rather than you shall find it yourself.



The Knowledge Day Three

Fourth Session Information and Knowledge



- The role of libraries in building knowledge communities
- The importance of big data and information databases in promoting knowledge communication
- Conventional libraries & future libraries
- The significance of Mohammed Bin Rashid Al Maktoum Library

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Speaker

H.E. Eng. Hussain Nasser Lootah Director General of Dubai Municipality

H.E. Eng. Hussain Nasser Lootah was appointed as Director General of Dubai Municipality in January 7, 2009. H.E. Engineer Lootah began his career as an engineer with the Federal Ministry of Electricity and Water. He was also instrumental in winning some 30 local, regional and international awards for Dubai Municipality.

In his capacity as the Director General of Dubai Municipality, H.E. Engineer Lootah is a member of The Executive Council of Dubai Government, and heads some committees at the said council. He also is an active member of a number of local and international governmental and semi-governmental councils and committees.







In the name of Allah, the Most Gracious, the Most Merciful, first I would like to say that I am honoured to be with you today to give information about one of the mega-projects that were implemented by the Government of Dubai. We start the lecture by focusing on the importance of information and its future, one of the work basics, which is the second stage after the industrial revolution. There are basic pillars of information; we shall use these pillars in communication and access to them until we reach the decision maker. One of the most important things is that we have a huge information base. We relied in the past on information in limited quantities, but the information condition now, which will cover the industrial revolution, constitutes the required amount of information. This information must be created in several ways through studies for example, which is the basis for its compilation as well as experiences; we will find today that all laboratories in the countries of

the world will feed its information and data in one database. With different data from all over the world, from Asia to America, then Africa, this information will close the distances after this difference, and there will be other things to focus on as phenomena; for example: natural phenomena are considered information, how? If we look at previous years, we will find that it focused on certain phenomena, for example, rainfall in the United Arab Emirates, as we are a country with a dry climate that suffers from a lack of rain, but by analysing the phenomenon, we found that several cycles exist: a cycle every five years, and a cycle every 30 years, when we went back to the 30 years cycle, we found actually that after every 30 years the rainfall percentage is rising. These phenomena are a simple example of what I said but it shall be taken into account to access information. History is the most important information, from which we can get numbers that help in preparing studies. Of course, after access or create this information, it shall be collected; Today is different from yesterday. In yesterday, we have been collecting the information through books and drafts, and by some available tools, and today in the era of computer, it is easier to collect millions or billions of this information through computers. This compilation needs to categorize and filter out the correct and



"The Mohammed Bin Rashid Library is an integrated hub of culture and media. It explores the future of information and helps in achieving the Dubai vision of leadership at the Arab and global levels." incorrect things, and this information must be tabulated. Another key point is that the following stage after access to information is the analysis part; how do I analyse this information and how do I get the correct information? Humans with their personal abilities cannot conduct this analysis, but it will be conducted by computers, and of course, computers can analyse millions and billions of information and

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data to reach similar or key points, and that is the most important point reached by the analysis. It is important to analyse information to reach the goal. When we reach the information and analyse it, we will go to the next stage in the global economy "marketing of information", one of the most important economic projects; so that the developer, the producer, the manufacturer or any entity will invest this information to find a usable product; so the information market has a good future, and have a major economic element may dominate the industrial revolution, which is the stage of human evolution itself. It is important today to enter information into artificial intelligence. What is the meaning of artificial intelligence? It is how the computer analyses by detail and comparison, and then gives results for decisionmaking. We will rely heavily on the computers to make the decision, so artificial intelligence is the foundation that will lead us to the next stages, and one of the raised concerns is that computers may control us humans. One of the alarming studies is that the computer may control humans through the computer power of taking the main and proper decision. Today, we may look to the earth, on which life and evolution of human beings exists, and the information that exists only on earth, but with the conquest of space and the next space projects there will be an explosion of information. What is the meaning of information explosion? We will get information, which cannot be perceived by the human mind; we are going to get information from the vacuum of space through something cannot be considered as a part of the human forces achievements, but computer will do it. Let us watch this movie. From this introduction, I wanted to recognize the sharp vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, as His Highness directed to establish Mohammed Bin Rashid Library. This directive commissioned Dubai Municipality to build an integrated scientific, cultural, social and media edifice, and one of the objectives of this edifice is to explore the future of information and will be different completely from any existed library; where it will shed light on the use of computers and other tools to deliver information to its recipients. Of course, there will be many books, as well as specialized libraries of 4.5 million books, in addition to millions of books, and visual and auditory information; which is the main objective of delivering information to its recipient. So we aimed in this project at exploring ways and achieving goals through working on different programs, and we will reach the goals, which set as numbers in implementation of this project. There is no doubt that this project will be specialized institution and will address all disciplines, in particular the library of the child and the next generation of the future. So, it was important that the library shall be distinguished by special section for children, and youth library and business library, etc.. Therefore, we were careful when establishing this project to achieve the general requirement for each segment of society. We will be also keen on the introduction of technology to enhance the Arab Reading Challenge Initiative, which is one of the

initiatives that have been launched at the level of the United Arab Emirates and all over the world, and the most projects that related to reading. The importance of this library is reflected through the branches in general and the libraries that will be in this library; there will be technical, engineering, cultural and heritage crews to cover all requirements of the establishment of this library, and delivering, archiving and classifying the information, so that this library will become a specialized, comprehensive and distinct one; and information will reach recipients in guick manner. We are very keen to establish this scientific and knowledge edifice by all means, and this project will be completed to remain as a cultural, heritage, artistic and scientific legacy, Allah willing, the vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum will be realized. Thank you very much for the opportunity that you give to me to shed light on the public library project. May peace, blessings and mercy of Allah be upon you!

Why there are no training institutes to prepare cadres of libraries and information to serve this edifice and this library?

H.E. Engineer Hussein Bin Nasser Lootah: This idea is very good, and I am sure that the national universities can involve with the Knowledge Authority to prepare trained and qualified cadres to implement this project, and develop plans, qualifying and training programs.



Day Three

The Knowledge

Fifth Session

Updates of the Knowledge Index Press Briefing



Session topics

- Impact of the Arab Knowledge Index on the Arab World
- Arab Knowledge Index: The Stages of Evolution
- Results of the Arab Knowledge Index for 2016
- A future outlook at the Arab Knowledge Index

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Speaker

- Dr. Najoua Ghriss Main Author and Author of the Chapter on Pre-University Education
- Dr. Khalid Wazani
- Author of the Chapter on Economics
- Dr. Motaz Khorshid Author of the Chapter on Research, Development and Innovation
- Professor Yousry Elgamal
- Author of the Chapter on Information and Communication Technology (ICT)
- Dr. Ali Ibrahim
- Author of the Chapter on Higher Education
- Youssef Sadik
- Author of the Chapter on Technical Education and Vocational Training

Moderator

Dr. Hany Torky Arab Knowledge Project Manager

Dr. Hany is currently the Arab Knowledge Project Manager and Chief Technical Advisor of the Arab Knowledge Project (AKP), United Nations Development Programme. Hany holds a PhD in Applied Statistics from Alexandria University. Prior to joining the Arab Knowledge Project in 2010, Hany was a lecturer at Alexandria University. He has around 20 years of experience in the areas of Statistics and Knowledge for Development.

Hany is currently the Chief Technical Advisor of the Arab Knowledge Project (AKP), which is one of the very few credible initiatives on 'knowledge' and 'development' in the Arab region. He has led a survey on around 5,800 sampled school students from four Arab countries: UAE, Jordan, Morocco and Yemen in the preparation for the Arab Knowledge Report 2010/2011, another survey on around 5,500 sampled university students from four Arab countries: UAE, Jordan, Morocco and Tunisia in the preparation for the Arab Knowledge Report 2014.

He has also overseen the organization of workshops at the UNESCO headquarters, the University of Oxford and the United Nations Headquarters.

Areas of Expertise include providing guidance and advisory services and delivering lectures on knowledge issues; supervising research and dissemination of research findings, statistical analysis, building indices and modelling and simulation.



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Dr. Najoua Ghriss

Main Author and Author of the Chapter on Pre-University Education

Professor Ghriss holds a Ph.D in Educational Sciences jointly from the University of Tunisia and the University of Louvain-La-Neuve Belgium. In addition to her occupation as a University Teacher at University of Tunisia, Dr. Grhiss is a Research associate at the National Centre for Pedagogical Innovation and Education Research in Tunisia. She is a member of the Tunisian Association of the Academic Pedagogy.

Professor Ghriss has conducted numerous researches on educational areas. She participated in many national, regional and international workshops and seminars in the field of Education. Professor Ghriss also contributed to researches with regional and international organizations such as: UNDP and Mohammed Bin Rashid AL Maktoum Foundation, CIEP-Sèvres; UNESCO and ALECSO.

Professor Ghriss's recent publication was in 2014 titled "Study on Performance of Arab States in TIMSS 2011", she also wrote a chapter titled "The Role of Education in Individual and Sustainable Development" in a book titled "Arab Human Development in the Twenty-first Century: The Primacy of Empowerment".

Dr. Khalid Wazani

Author of the Chapter on Economics

Dr. Wazani is currently the Economist and Strategy and Knowledge Advisor at the Mohammed Bin Rashid Al Maktoum Foundation (MBRF).

Previously he was CEO and chief economist/ strategist at the advisory assembly company "Issnaad Consulting". Prior to that he served as General Manger & CEO of "Saray Aqaba Real Estate", "Taameer Jordan Holdings" and "Darat Jordan Holdings". Between 1999 and 2006, Dr. Wazani held different official positions in Jordan including Director General for the Jordanian Customs Department, Advisor at the Royal Hashemite Court and Director General of the Social Security Corporation.

Dr. Wazani is a prolific author with many published researches, studies, and books. He is an active member in various professional and scientific forums and councils and a board member in a number of corporations and companies.

Dr. Motaz Khorshid

Author of the Chapter on Research, Development and Innovation

Professor Khorshid worked as a former Egyptian minister of higher education and minister of state for scientific research, Vice President of Cairo University (CU) and the British University in Egypt (BUE), Chief Technical Advisor for socioeconomic development Planning Support systems (DPSS) in the United Nations (UNDESA/ UNDP), Dean and Vice Dean of the Faculty of Computers and Information of Cairo University. Professor Khorshid is currently professor in Cairo University (CU).

Professor Motaz Khorshid obtained his first PhD in Computer Sciences and Operations Research and the second PhD in Management Sciences from Paris University, France.

During his scientific journey, Professor Khorshid involved in a number of applied research projects. He worked as advisor for number of international, regional and national organizations, for example the World Bank, United Nations Development Programme, United Nations Depulation Fund, Economic and Social Commission for Western Asia, and United Nations Department of Economic and Social Affairs. Professor Khorshid is currently the Chairman of the Scientific Commission for Mediterranean Universities Union.

Professor Khorshid has published a number of scientific researches in local and foreign journals in the fields of Simulation, Modeling, Decision Support Systems, Macroeconomic Analysis, Management and Planning of Higher Education, Scientific Research and Development Planning.

Professor Khorshid has been awarded the "Academic Palm" from the government of France for his efforts in supporting the bilateral relationship between Egypt and France in the fields of culture, education and scientific research.



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Professor Yousry Elgamal

Author of the Chapter on Information and Communication Technology (ICT)

Yousry Elgamal is Professor of Computer Engineering, senior consultant at The Arab Academy for Science and Technology, and Chairman of The Computer Scientific Society (CSS), Alexandria-Egypt. He served as The Minister of Education of Egypt, Chairman, Board of Trustees, Egypt Japan University of Science and Technology (E-JUST) 2010-2014, and the senior consultant of the National Telecommunications Institute of Egypt.

Elgamal has also served in a number of capacities at The Arab Academy for Science and Technology and Maritime Transport. He also served as a Lecture of Nuclear Electronics at The Atomic Energy Agency (IAEA).

Prof. Christine Mallin (resource person) Elgamal holds a D.Sc. in Computer Science from the George Washington University, and he is a recipient of Richard Merwin Award 1984. He is a board member of the Centre of Special studies and Programs (CSSP) and the Center of Science and Planetarium, Bibliotheca Alexandrina.

Dr. Ali Ibrahim

Author of the Chapter on Higher Education

Dr. Ali Ibrahim holds a Ph.D. in Administrative and Policy Studies in Education and a M.Ed. in International and Development Education - both from the University of Pittsburgh, USA. Dr. Ibrahim co-directed the Institute for International Studies in Education, University of Pittsburgh for one year and was involved in development projects in a number of countries.

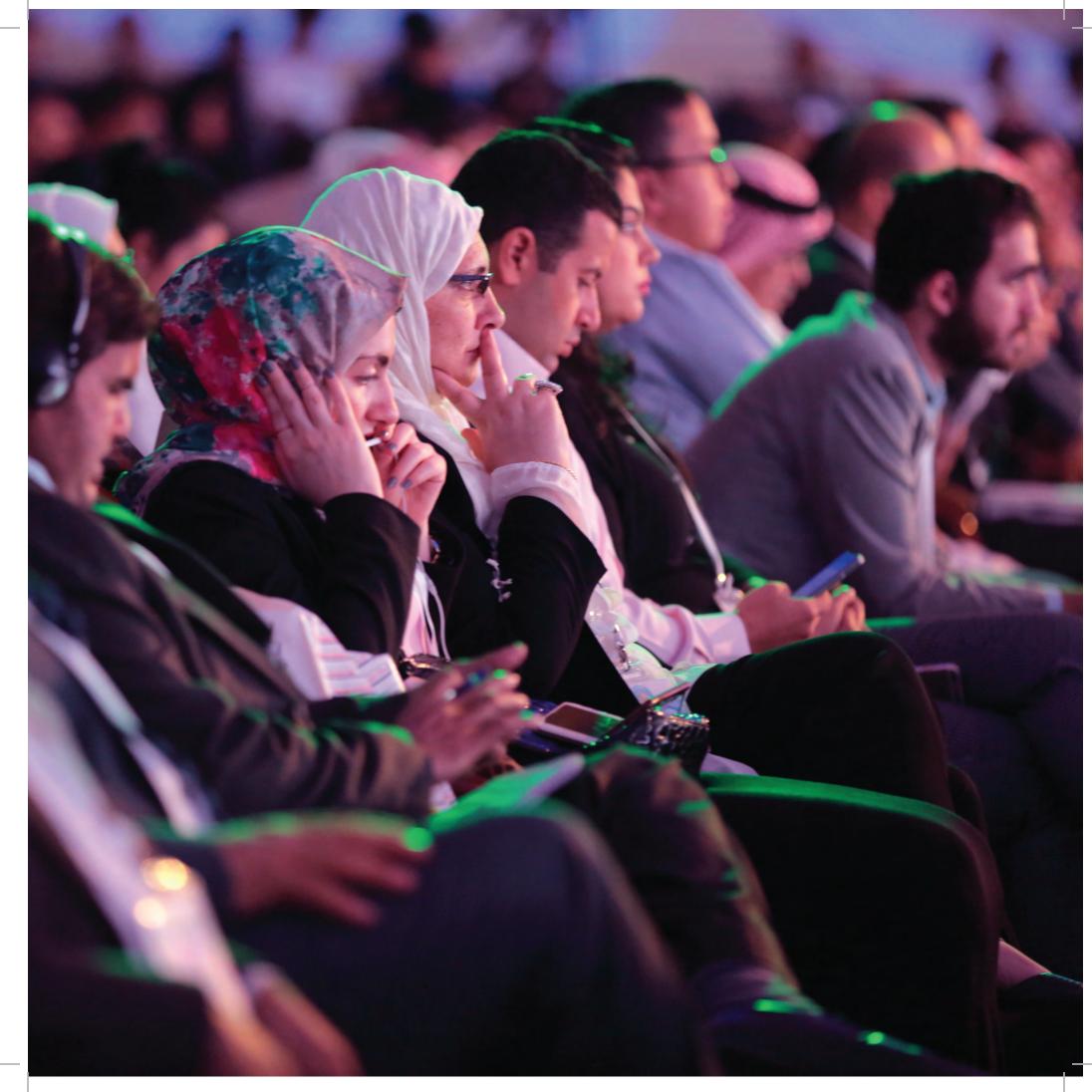
Before moving to the United Arab Emirates, Dr. Ibrahim taught in Colleges of Education in Egypt and Oman. While in Egypt, he was a consultant for Michigan State University and the USAID Egypt Education Reform Project on teacher education reform and decentralization of the education system.

Youssef Sadik

Author of the Chapter on Technical Education and Vocational Training

Youssef Sadik is a Professor of Sociology and Responsible for the Department of Educational Fundamentals in the faculty of Educational Sciences at Mohammed V University in Rabat. He is a Research Associate at the Research Centre on Immigration, Ethnicity and Citizenship at the University of Quebec of Montreal, Canada. Professor Sadik works as a research associate in the Laboratory of Meaning and Understanding of the Contemporary World (LASCO) – René Descartes University – Paris V Sorbonne.

Professor Sadik oversees the master of Human Capital Management and Communication – Mohammed V University in Rabat. He served as expert in the Moroccan Parliament on youth employability. He also worked as USAID consultant and team leader of Morocco's study on the Employability of Youth in Morocco. Between 2010 and 2012, he served as an Adviser of the Head of Government.



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Session

Updates of the Knowledge Index - Press Briefing



Moderator: What are the main updates that took place this year and your view regarding the Knowledge Index 2017?



Dr. Najoua Ghriss: For the Pre-University Education Index, it was built on a model based on four pillars: knowledge capital, then enabling categories, then the general context, and then follow-up of the system and evaluation of the education systems in the region. This model remains as its, and has not been changed, but the sub-indices has been enhanced through observations and follow-ups that have been conducted in the Arab countries, such as enhancing the pre-school attendance and early childhood programs; where all studies confirm the importance of this stage,

which reflects the interest in this segment. As well as the child health has been enhanced, and the role of education technologies. All these options are consistent with the objectives of education and the Education Plan 2030.



Moderator: How do we develop the Arab Knowledge Index?



Dr. Najoua Ghriss: We have a problem in providing data, if we were able to develop a plan to provide data and not remain in the subordination of international data; for example, people with special needs must have enough data about them in order to provide them with the desired plans. Everyone is also talking about education governance and how to follow-up the assessment, and unfortunately we are not able today to activate these

governance in order to give a true picture of the status of pre-university education in the Arab world.



Moderator: What is the update that has been conducted this year, interms of technical development?



Dr. Youssef Sadik: I must refer to the importance of technical education in general, in particular the Arab world. We note that there are differences between the communities living in the constraints of demography and history from one side, and the communities got rid of these constraints from the other side. Technical Education Index is based on three things: education and training structure, such as enrolment and linking to the labour market, and the institutional framework, such as the economic policies, the features of labour market and education and developmental context, such as the demographic structure and development situation. In this context, we tried to re-read the international indices available at this level, especially at the level of UNESCO and the European Training Foundation, which enabled us to enrich the vocabulary and terminology.

The Knowledge



Moderator: What are the updates that have been conducted in the IT sector?



Professor Yousry Elgamal: All previous sessions talked about information technology; i.e. IT is involved in all areas of knowledge. Infrastructure, cost and utilizations significantly affect IT sector, which also affected by education, so we call it the enabling environment. Smart devices spread impacted on Information and Communication Technology sector, and when new applications appear, the following question is directly raised: Does it work on phones or not. It was necessary to add another variable, like patents and innovation in this sector, and shall be linked to international data, such as the United Nations Data and the Global Competitiveness Reports. The composition of the index is fully compatible with the data in the whole world. There are three aspects of communication technology, namely: currently used



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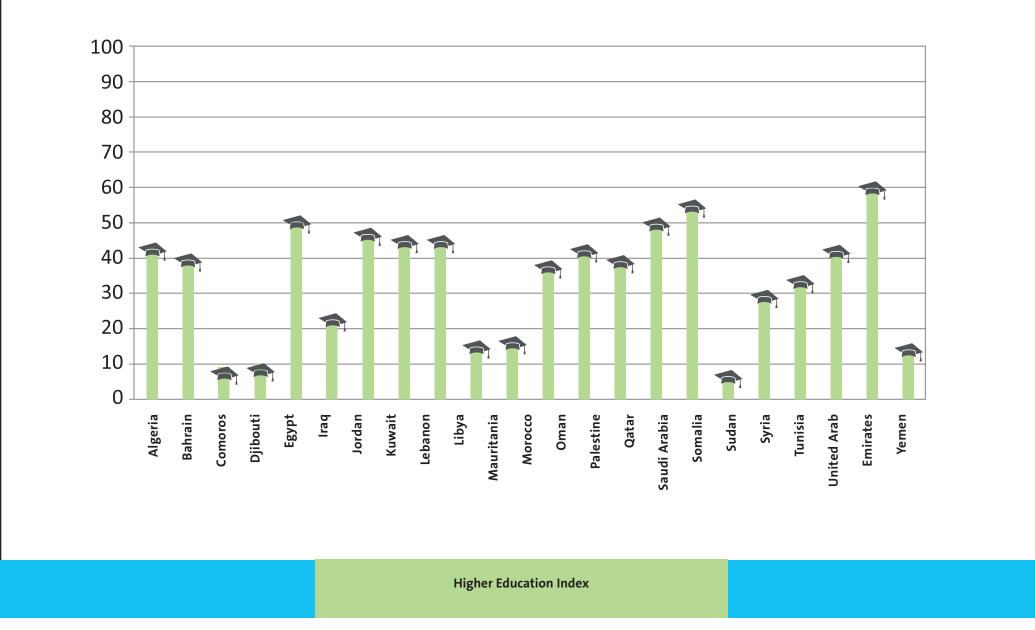


Technical Education - Training Index



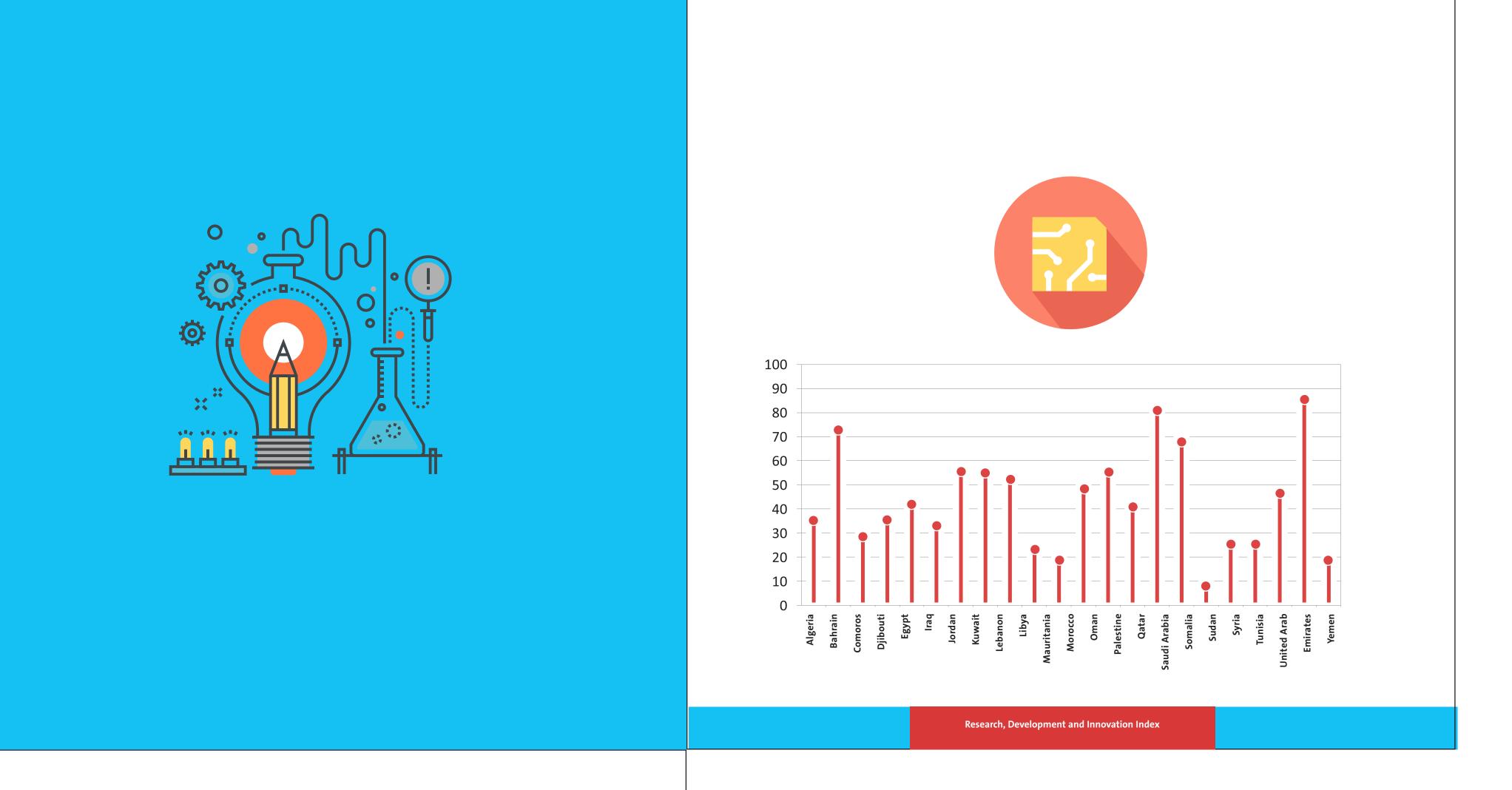
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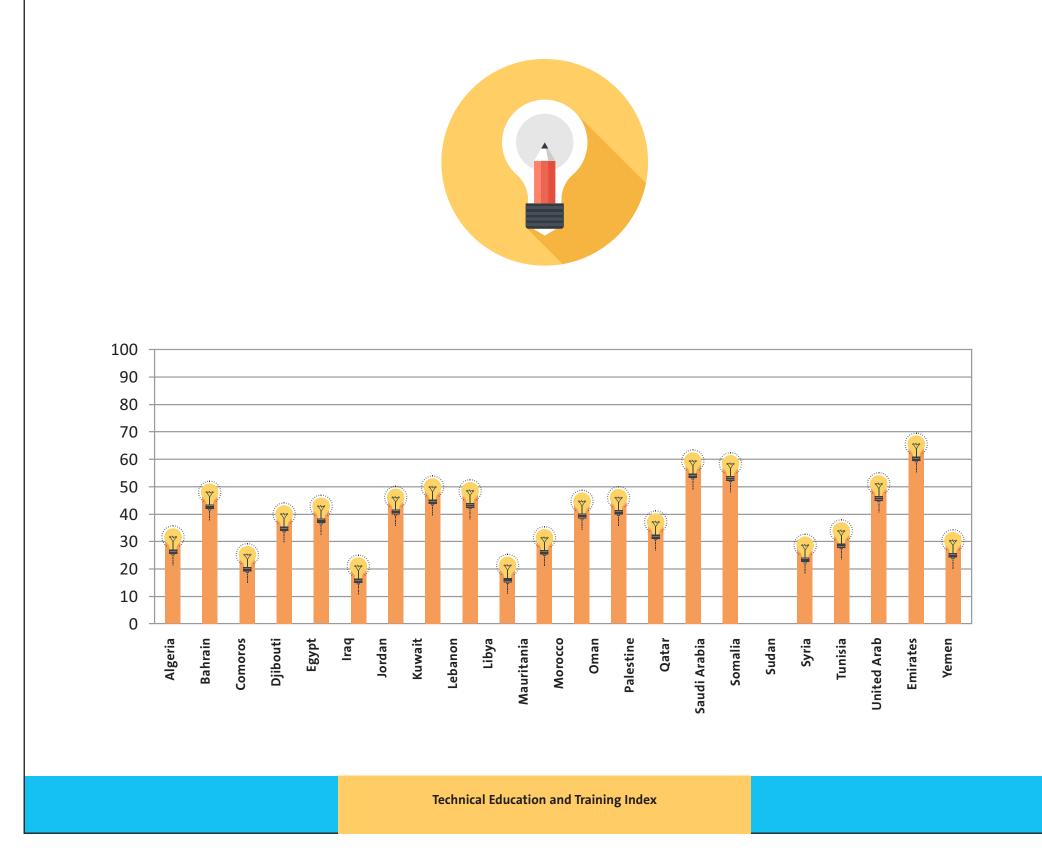






Information and Communication Technology Index







appliances and equipment connected to the Internet, which resulted in the Internet of Things, the size of the huge data and its processing, which is called the big data. It is not necessary to have the appliances and data, but you can use them online, and get the information service and pay for it, this is what we call "cloud computing." The index is information, which shall be turned into knowledge through analysis and linking the information to the activities of the State.



Prof. Dr. Motaz: Scientific research sector develops education, produces knowledge and creates

economic and social mutations. The index focuses on three directions: Research & development, innovation, incubation environment and supporting infrastructure of scientific research. The scientific research can lead to launch new products and innovation, but the problem is that innovation does not happen directly because of scientific research; it is happening beyond it. Innovation is divided into innovation in production and community innovation. There is a new form of the index at this stage, and there will be greater development in the future. There are two countries continuously conducting the monitoring and questionnaire works; Egypt and Morocco, and we must support this trend; because the development will not be achieved without data. We strive to have Arabic scientific and knowledge observatory in the future.

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Dr. Khalid Wazani: I will talk briefly in short statements about the update that took place in the sector of the economy this year and the future update of this Index. For the first time, the economy sector becomes one of the knowledge sector topics, and then we talked about articulated aspects represented in economic and knowledge openness and the development of the economic structure of the State; i.e. how knowledge affects the State's economy, and then we came to the enabling environment that will help the economy by using the knowledge in increasing the economy, then comes the human side and the attention to the knowledge of the individuals; for the economic advancement. It is known that the only knowledge index worldwide is the knowledge index issued by the Mohammed Bin Rashid Al Maktoum Knowledge Foundation; and thus, the next step is to create a global knowledge index issued from Dubai with full support from the Mohammed Bin Rashid Al Maktoum Knowledge Foundation. There are three pivotal issues, which we shall consider: knowledge ingredients of the knowledge economy. There is a major initiative launched by the United Arab Emirates with respect to economic diversification and not to focus on the

oil sector alone; this is one of the important indices, the second issue is the economic and knowledge openness, and finally I think that the fourth update in the future must be the human resources and its impact on economic and knowledge openness.



Moderator: What is the update that has been conducted this year, in terms of the Higher Education Index? In addition, how to develop it in the future?



Dr. Ali Ibrahim: In the past year the update consisted of three main topics: education inputs, processes, and outputs of the higher education system, and included sub-topics: Inputs have 5 sub-topics: enabling environments, spending, enrolment, human resources, student exchange in order to build the personality of the student professionally and technically; to graduate and integrate into the labour market. Under the topic of output, there are

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four sub-topics: graduation rates, employment, knowledge capital with the Arab youth, and knowledge production of higher educations, especially in the field of invention and research. In 2016, there were key goals in terms of the improvement and development of this index: validation of the index structure with its different indices and topics, overcome the lack of data that marred the first version, a review of weights and validation of them. The best thing that has been achieved in the 2016 Index is the processing of data, as 14 new variables have been introduced in the topic of the input, 7 variables in system processes, and 10 new variables in the output. The index provides an analysis of the situation of higher education, and determines the strengths and weaknesses in each country, the Index still has some deficiencies regarding the data, and I hope to conduct analytical studies based on the results of the Index. The results of the Index are: The enabling environment is very important for that, so, in countries that do not have a good enabling environment, the results were low. Recent results showed that Singaporean students are ahead of their American and French peers with two years; i.e., what the student knows in the tenth grade, the American student knows it in the twelfth grade; so, what is case in our Arab world? We hope that the Arab countries are moving based on the Knowledge Index 2015. I do not know whether they moved or not.



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