AGYA Panel Discussion at Zayed University, 24 October 2015

Panel 1: Math and Science Outreach Project

Panelists:
Dr Abdulla Al-Kamali, Qatar National Research Fund, Qatar
Prof Robin Dada, Zayed University, United Arab Emirates
Dr Ahmad El-Guindy (AGYA), Texas A&M University at Qatar
Prof Kalman Graffi (AGYA), Heinrich Heine University, Germany
Prof Jürgen Prestin, Univeristy of Lübeck, Germany
Moderation: Dr Vanessa Lux (AGYA), Ruhr University Bochum, Germany

How can we involve Arab and German youth in up-to-date scientific knowledge and empower them to embark on the road of scientific research? What are the benefits of new approaches to build "vertical" networks between students, school teachers and scientists, as well as "horizontal" networks across disciplines, institutes and countries?

SEARCH FOR TALENTS

One specific focus of the panel discussion was placed on competitions such as the International Math Olympiad as well as different local competitions in Germany and the benefits they provide to their participants, schools and universities. The key to a successful participation in this kind of international competitions is to select participants through a pyramid like structure with a wide base that can reach as far down as elementary school, in order to widen the participation and improve the outcome overall.

Furthermore, the importance of STEM and STEAM education in preparing any nation's youth to be active participants in the technological and scientific landscape of today's world was stressed. A number of initiatives in the UAE were introduced, such as Think Science and other science festivals and competitions which encourage young students and youth to participate in scientific activities and also learn how to explain science to each other.

Germany is a country with ample experience regarding scientific youth competitions. The Computer Science Olympiad and also the Jugend Forscht competitions in Germany have expressed sincere interest in sharing their knowledge and experience with similar competitions in the Arab world once the exact needs are identified.

IMPROVEMENT OF THE EDUCATIONAL SYSTEM

The value of having competitions and camps at the high end of the ability spectrum of students is unquestionable, as those can be tomorrow's great scientists benefiting their countries and the whole of humanity. If done properly, and in agreement with the pyramid model, those initiatives would have a positive effect on the whole spectrum of the educational system as it will bring out the best of the participants and teachers and guide the way to updating content and teaching methods.

The Panel presentation was followed by a lively discussion with the panelists in which additional ideas and points were raised; for instance, the use of online resources and lectures to increase the impact of such initiatives, and the importance of teacher trainings to ensure the success in such initiatives.

Panel 2: 'Translating' Heritage in Contemporary Transnational Contexts

Panelists:
Prof Verena Lepper (AGYA), Egyptian Museum & Papyrus Collection, Germany
Dr Tarek Tawfik (AGYA), Grand Egyptian Museum Project, Egypt
Dr Christian Wacker, University of Freiburg, Germany
Moderation: Dr Norman Domeier (AGYA), University of Stuttgart, Germany

The term 'heritage' can be used to encompass ideas, forms and artefacts - forging links with other ethnicities and nations and it can also be used as a means to reject ideas, forms and artefacts - in some cases breaking long standing links with others. Heritage is never neutral. To what heritage recur extremist groups like ISIS or Taliban when destroying artefacts? One has to bear in mind, however, that heritage is destroyed everywhere in the world every day, i.g. when the importance of archeological sites collide with economic interests on local levels (preserving the ruins of a small temple/church/palace versus building a great new skyscraper, airport, motorway etc).

EXPLAINING ONE`S CULTURAL HERITAGE

If we interpret the notion of "translation" as explaining one's own cultural heritage to members of other cultural backgrounds understanding and shared knowledge is produced. This panel tackled characteristics and problems of such "translations" in museology with a focus on antique heritage and sports as a global medium. What are currently the dominant strategies, what is ‚state of the art' in your museological context? Is museology originally a European/Western concept and maybe even linked with the colonial past, i.e. European interventionism in the acquisition and management of antiquities or is there now a global museology (with its national branches)? If so, how important are regional peculiarities, comparing, for instance, Arab and German techniques of presenting things? In practical terms, how do museums try to attract visitors these days, in particular young people?

MUSEOLOGY & THE DISPLAY OF NATIONAL IDENTITY

Museum missions are always based on target groups these institutions are reaching out to and they are seeking for a community that gets identified with the topics displayed. Museum projects like the Zayed National Museums in Abu Dhabi and the National Museum of Qatar as well as the King Abdulaziz Center for World Culture in Dhahran have a heavy task to get their target groups connected. National museums usually deal with national identities (Deutsches Museum, Deutsches Historisches Museum, Deutsches Schiffahrtsmuseum etc.) and display national heritage. But what means national identity? The exhibition 'Germany: memories of a nation' at the British Museum 2014 curated by Neil MacGregor seemed to have opened the German eyes towards their identity. However, it reduces German identity to Volkswagen Beetle and white sausages. National identity in the countries of the Middle East are likewise under construction, and national identification processes are mostly connected to western models like sports stars, entertainers or industrial products as well as to future projects (Expo 2020, Football World Cup 2022 etc.).

NEW MUSEUMS – NEW IDENTITIES?

Cultural heritage usually designs and/or constructs identities, especially national identities. The Big Ben, the Statue of Liberty, the Pyramids in Gizeh, Taj Mahal, the Forbidden City or the Acropolis are pillars of national identities. Qalat Al Bahrain, Al Zubara, Qasr Al Hosn Fort and others are included in the ongoing process of national identification in the Gulf region, but most connectivity is given

through modern developments rather than traditional cultural heritage. The national identification process also affects the creation of museums in this region and especially the basic questions like collection policies and outreach policies (target audience, inclusion?). Some observations and recommendations might showcase the different approaches needed to tackle societies in constant transformation during their national identification processes and heritage treatment when building new museums. Assuming that museums in the Gulf region are not only implemented as cultural marketing tools, the question about sustainable museum culture and learning institution has to be seriously positioned in the near future when the big museum projects are completed.

Panel 3: Disputed Technologies: Ethical Perspectives

Panelists:
Dr Jan Friesen (AGYA), Helmholtz Centre for Environmental Research, Germany
Prof Bashar Haydar, American University of Beirut, Lebanon
Prof Nicole Karafyllis, Braunschweig Institute of Technology, Germany
Dr Martin von Broock, Wittenberg Center of Global Ethics, Germany
Moderation: Dr-Ing Tobias Redlich (AGYA), Helmut Schmidt University, Germany

In the past four decades technologies have significantly changed our lives. Many of the new emerging technologies raise controversies, and many spark intense debates that polarize in the scientific point of view. The panel opened the floor to Arab and German perspectives on disputed technologies with a special focus on the assessment of individual country perspectives.

Cultural differences & the adaption of new technologies

Thinking of different technologies like nuclear technology, self-driving cars, google glasses, and genetic engineering we will find cases where public or individual perception of such specific technologies is ambivalent if not negative with at least some of us. The chances for the acceptance of a certain new technology might have universal reasons that therefore apply globally. But there might also be geographical or cultural differences. The panel focussed on the connection of technical innovations and their societal acceptance, respectively from a German and from an Arab point of view.

It was stated, since new technologies are being developed to cope with specific tasks of individuals or to meet the challenges of a society, technology assessment therefore may not be universal since the underlying problems are not the same worldwide. The panellists discussed whether there is or is not an impact of regional, cultural or ethical perspectives on the acceptance of technologies and the resulting prosperity by the use of such. Germany was stated to be a technology inventing and exporting country while some Arab countries are predominantly importing technologies as well as the debates or "disputes" around them. Although there is a certain interconnection between the two cultures, differing ethical perspectives, however, lead to completely different discussions.

Ethical perspectives on technologies

Furthermore it was considered whether science should give the answer to the question of the "right" technology. It was noted that science argues value-free *per se*, the acceptance of technology, however, is always tied to specific norms and values. Since technology in itself is neither good nor evil, it depends on its purpose and its use. Whether a technology can solve existing problems, or if it is

good or bad is subject to many factors. Amongst others one is the ethical perspective towards a technology, usually dependent on the regional and cultural context. In addition, the level of technological literacy is also an important factor for the capability of adapting and also accepting a certain technology.

Panel 4: Issues and Challenges in Higher Education

Panelists:
Prof Yaser Amouri, Birzeit University, Palestine
Mr Nazef Al-Dakkak, Queen Rania Foundation, Jordan
Dr Maha Al-Hendawi (AGYA), Qatar University, Qatar
Dr Sabine Behrenbeck, German Council of Science and Humanities, Germany
Prof Sari Hanafi, American University of Beirut, Lebanon
Prof Rana Tamim, Zayed University, United Arab Emirates
Moderation: Dr Vanessa Lux (AGYA), Ruhr University Bochum, Germany

Higher education institutions are expected to operate, compete, be creative and innovative, and provide intellectual leadership in a rapidly changing world. Has higher education succeeded in fulfilling such aspirations? What is the role of higher education in the 21st century? What are the major issues and challenges now and in the future? Where are we placing teaching and learning in higher education compared to research?

UNIVERSAL & REGIONAL CHALLENGES

Each panelist presented an overview regarding the issues and challenges in Higher Education in his or her country as well as recent reforms and future perspectives. This was followed by a lively discussion with engaged and well informed contributions from the audience. The reports from the Arab countries showed that despite the diversity of education systems and traditions, we find a constant effort of those involved in these systems to improve teaching and research. Some of the reported challenges were strongly connected with the political situation in the Middle East and in individual countries. Other challenges were strikingly universal. One major issue, which was reported across countries, is the quality of teaching at the university level. In the Arab countries, there is a high sensibility for this issue. Here, in addition, there is also a lack of teaching skills at the high school level. Thus, we find several initiatives that are dedicated to improve teacher education as well as the quality of teaching at universities. In Germany, although the quality of teaching at universities is also an issue, there is less awareness for it among the academic community. Here, the focus is mainly on research and the need for international competitiveness. Recent experiences from the excellence initiative were reported and the differences between public funding strategies in the Golf region, in the MENA region and Germany were discussed. Also, in the discussion, awareness was raised for a growing imbalance between the sciences and the humanities in regard to funding, study programs but also societal recognition. To provide intellectual leadership universities need to teach critical thinking as well as historical and philosophical knowledge. The tendency of a growing imbalance between the sciences and the humanities was reported across the Arab countries and, although with a lesser degree of urgency, from Germany.

NEW MEDIA & HIGHER EDUCATION

Another major issue was the use of online and blended learning tools for higher and further education as well as the integration of New Media technologies in the class room. The reported experiences were mixed for the use in the class room, but showed tremendous acceptance and success for continuing or further education outside the regular study programs. Here, the need for online teaching platforms such as Edraak.org, which provides online courses in Arabic across a wide range of topics (English language classes, business and administration, etc.), seems to be constantly growing.
Finally, the role of young scholars in the different academic systems was discussed as well as their key role for initiatives and higher education reforms.

Panel 5: Innovation and Young Talents

Panelists:
Dr Dalia Abu Samra-Rothe, German Emirati Joint Council of Industry and Commerce, United Arab Emirates
Dr Andreas Fischer (AGYA), *Wissenschaftlich-technische Beratung*, Chemnitz, Germany
Dr Thomas Heck, Düsseldorf Innovation and Science Agency, Germany
Mr Marcel Sander, *Actidoo*, Paderborn, Germany
Dr Martin von Broock, Wittenberg Center of Global Ethics, Germany
Moderation: Prof Kalman Graffi (AGYA), Heinrich Heine University, Germany

Innovation is a key driver for the future industry. Start-ups and spinoffs from universities are one promising way to transfer the world-leading research and education to novel solutions and ideas that might initiate long lasting industrial development. Thus it is a key question how countries and universities support the development of ideas, the transfer of knowledge from university to industry and the founding of new start-ups.

START-UPS & UNIVERSITIES

The panel on Innovation and Young Talents addressed questions and ideas on the options of countries and universities to support the development of ideas, the transfer of knowledge from universities and the founding of new start-ups.

Examined were insights on the start-up culture in Germany and the motivation of young students to start their own company. Having a support from the university or the state was identified as essential to start a company, the perspective of higher income in comparison to jobs in the industry or the state is adding a great motivation for young entrepreneurs. Organizations like the Düsseldorf Innovation and Science Agency (DIWA) offer various support for entrepreneurs that are made at German universities. Several good examples show, that this approach of constant offers and a close support in the preparation and the beginning of a start-up allow the flourishing of many good start-ups.

The Emirates offer many opportunities and support the exchange of ideas. Traditionally, with the industry being focused stronger on natural resources and logistics, there are notable advancements in the field of technology-related entrepreneurship.

SUPPORTING INNOVATION

In the subsequent discussion with the audience, several aspects were discussed to initiate more innovation and entrepreneurship in Germany and the Arab world. One aspect was highlighting that entrepreneurs are taking a risk with a start-up, thus it should provide a reward in comparison to a regular job. In cases where this reward is small or failure is stigmatizing, innovations occur less frequently. Another aspect was addressing the role of universities in the innovation and entrepreneur process. As many novel ideas arise in universities and students are smart and often very active, professors should be motivated or credited stronger to support the students in their entrepreneur ambitions. The impact factor on society was questioned in regard to a less cited article or a startup with participates on the market. The panel was welcomed for its various insights on the chances and challenges for innovation and entrepreneurship in Germany and the Arab world.