

FLASHES

APR 2015

A MONTHLY MAGAZINE ON KNOWLEDGE AND DEVELOPMENT
BY THE MOHAMMED BIN RASHID AL MAKTOUM FOUNDATION

Nobel Museum Open Now

Nobel Museum makes
its Arab World debut

CREATING A A BETTER FUTURE

Paving the way for a
knowledge-based future

CAMBRIDGE TABADOL PROJECT

Harnessing the power
of the youth

INNOVATION

The key driver for
a nation's growth

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FOREWORD

It is now a well established fact that innovation is the key driver of economic growth and progress. In the years to come, nations will be defined by their capability to innovate. History shows us that nations and economies that do not keep up with the times and innovate, eventually stagnate and die. Which brings us to the question of why innovation is so important.

Because it solves today's problems in a way that positions us to address the unforeseen problems of tomorrow.

Take for instance the invention of the global positioning system (GPS). Originally developed for military use in the 1970s, it is now a staple feature in every car and smart phone. It is even being used to help preserve endangered animals. This is just one example of the continued benefit of innovation. This interplay between the present and potential future benefit is why innovation is integral to survival and growth.

2015 is being marked as the Year of Innovation in the UAE. While the government is undertaking major steps to ensure that the UAE innovates at each step of the way, the Mohammed Bin Rashid Al Maktoum Foundation (MBRF) is contributing to this national goal in its own small way. We all know that Nobel Prize winning discoveries and theories change our lives but only now for the first time will the Arab World be able to see how they are translated into everyday science at the Dubai Nobel Museum's Travelling exhibition. We envisage that this will be a great learning opportunity for everyone: an opportunity that departs from the usual text book approach to a more interactive and experiential method.

Be curious, ask questions, think outside the box. Become an engine of innovation.

HE Jamal Bin Huwareb

MD of the Mohammed Bin Rashid
Al Maktoum Foundation

FOUNDATION UPDATES AND INITIATIVES





مؤسسة محمد بن راشد آل مكتوم
MOHAMMED BIN RASHID
AL MAKTOUM FOUNDATION



NOBEL MUSEUM NOW OPEN

Nobel Museum makes its Arab World debut in collaboration with Dubai's MBRF

We all know that each year the Nobel Prize honours individuals who have made an exceptional and life changing contribution in the fields of science, literature and peace. But have you ever wondered how these achievements go on to impact our everyday lives? Or who was the man behind the Nobel Prizes and their establishment? What kind of achievements will be awarded in the future?

If you have, then find the answers to these and many other interesting Nobel related facts at the Nobel Museum's travelling exhibition, *The Nobel Prize: Ideas Changing the World*. Making its debut for the first time in the Arab world, the prestigious exhibition has been brought to Dubai by the efforts of the Mohammed Bin Rashid Al Maktoum Foundation (MBRF), in line with the directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and under the patronage of His Highness Sheikh Ahmed bin Mohammed bin Rashid Al Maktoum, Chairman of MBRF.

THEMES AT THE MUSEUM

The exhibition includes five diverse sections. In the first section visitors are introduced to the beginning of the Nobel Prize and the areas it awards (physics, chemistry, medicine, literature, peace and economic sciences). In the second pavilion, you can gain a deeper insight into the life of Alfred Nobel – the chemist, inventor, engineer, entrepreneur, business man, author and pacifist. Find here books from his personal library, his personal belongings, an overview of his inventions and industrial operations and the background to his will that lead ➤

(R-L) HE Jamal bin Huwairwb, Managing Director of MBRF, Dr. Lars Heikensen, Chairman of the Nobel Museum and Dr. Olof Ameline, Director of the Nobel Museum attend the press conference announcing the opening



➤ to the creation of the Nobel Prizes.

The third section titled *The Nobel Prize Over the Decades* gives an overview of the history of the Nobel Prize, and introduces the Nobel laureates and their work. The fourth pavilion is perhaps the most interesting. Here visitors can see how Nobel Prize winning achievements transcend into their daily lives. From mobile phones and LED lights to vaccines and radioactivity, each Nobel-awarded effort is now an intrinsic part of our life. Interactive displays spiel the background of each win and also give listeners the chance to participate in quizzes.

The fifth section, *The Nobel Prize and the Future*, addresses the question of how Nobel

Prize-awarded discoveries may affect the future and what future Nobel Prizes may involve. Listen to a short audio and then vote for the category you think future Nobel awards should include.

RENOWNED PERSONALITIES TO CONDUCT WORKSHOPS

Apart from organising the exhibition, the MBRF will also be running a number of associated events, including four special workshops led by experts from the Nobel Museum. A key attraction will be a workshop on micro-finance addressed by Nobel laureate Muhammed Yunus. Yunus, who established a micro-credit bank offering small loans for the poor, won the Nobel Peace

ATTEND A WORKSHOP

Four prolific personalities will be conducting workshops at the Nobel Museum. Here's the schedule:



SPEAKER: Tobias Degsell, Curator at Nobel
TOPIC: Spark of Creativity
DATE: 5 April 2015



SPEAKER: Dr. Gustav Källstrand, Senior Curator at the Nobel Museum
TOPIC: Impact of the Nobel Prizes
DATE: 12 April 2015



SPEAKER: Muhammad Yunus, Nobel Laureate in Economics
TOPIC: Micro-Finance
DATE: 19 April 2015



SPEAKER: Dr. Kata-rina Nordqvist, Head of Research Department of the Nobel Museum
TOPIC: Medical Advances from Nobel Discoveries
DATE: 26 April 2015

Prize in 2006 in recognition of his efforts to 'create economic and social development from below'. His efforts have contributed to economic and social development of millions of people, not only in his own country Bangladesh, but also in several other nations.

The Spark of Creativity workshop will be helmed by Tobias Degsell, Curator at the Nobel Museum. In 2010 Degsell developed a concept named the *Spark of Creativity* for business professionals. Since then he has been travelling the world preaching the power of creativity.

A workshop on *Impact of The Nobel Prizes* by Dr. Gustav Källstrand, Senior Curator at the Nobel Museum, will discuss the Impact of the Nobel Prizes while Dr. Katarina Nordqvist, Head of Research Department of the Nobel Museum, will speak on *Medical Advances from Nobel Discoveries*.

INSPIRING CREATIVITY AND INNOVATION

It is evident that the Nobel museum is truly a novel and interesting way to gain insight into the world's most important inventions as well as awards obtained by Alfred Nobel, the founder of the Nobel Prize.

The MBRF has always been committed to fostering ideas, innovation and creativity and its hosting of the Nobel Museum reiterates this commitment. In the words of H.E. Jamal bin Huwairb, Managing Director of MBRF, "The Nobel Museum exhibition will provide a unique platform in the Arab world to put the spotlight on innovation and discoveries. It will draw attention to human achievements that have transformed the world and contributed to improving the lives of people. We believe that the Nobel Museum exhibits will motivate our young people to innovate and look around them as creative explorers, and divert their energies to find better solutions and ideas."

The MBRF aims to establish the values of creativity and innovation in the region by highlighting the prestigious position of Nobel Prize in honouring outstanding discoveries. The event is a part of the Foundation's efforts to empower future generations with sustainable solutions that address the challenges in the knowledge and research domains in the Arab world.

Dr. Olof Ameline, Director of Nobel Museum,



expressed great satisfaction at being able to bring the Nobel Museum to Dubai. "Through the exhibition we hope to reach out to the general public, especially students from schools and university, ties and inspire them to focus on the pursuit of the sciences, literature, peace and economic studies. It will enable the public in the region to get acquainted with the concept of the Nobel Prize and the most prominent innovators who have contributed to humanity's welfare and development. The museum will inspire many towards creativity and innovation by highlighting how Nobel achievers have employed innovation and knowledge to touch the daily lives of millions."

He stressed that Dubai has always been a forerunner in attracting the world's most important events and is an exceptional host for the Nobel Museum exhibition in the Middle East. "The museum's location next to the Burj Khalifa is symbolic of the adage 'the sky is the limit'. The Burj Khalifa is a shining example of what the human mind and our advances in engineering can achieve. It is only befitting that the world's tallest building hosts the world's most prestigious exhibition."

Dr. Lars Heikensen, Chairman of the Nobel Museum describing the exhibit to HE Jamal bin Huwairb, Managing Director of MBRF and Dr. Olof Ameline, Director of the Nobel Museum

PLAN YOUR VISIT

The Nobel Museum is being hosted at the Burj Khalifa annex in Downtown Dubai. It runs from 30 March – 30 April 2015. Timings are from 9am-7pm, Saturday to Thursday. The museum will remain closed on Friday. Entry is free.



A young girl with long brown hair, wearing a pink tiered dress and pink leggings, is standing barefoot on a blue surface. She is reaching up with her right arm towards a wall. The wall is covered in a large, stylized mural of orange and yellow flowers and branches. The title 'CREATING A BETTER FUTURE' is written in large, bold, orange capital letters on the wall, partially overlapping the mural.

CREATING A BETTER FUTURE

This month MBRF is organising a series of workshops bringing together the regional and international thought leaders and policy makers paving the way for a knowledge-based and sustainable future for the Arab world.

REGIONAL AND INTERNATIONAL WORKSHOPS TO DISCUSS ARAB KNOWLEDGE REPORTS ROB

The Mohammed Bin Rashid Al Maktoum Foundation (MBRF) and United Nations Development Programme (UNDP) are jointly organising workshops in key Arab and international capitals to discuss the findings of the Third Arab Knowledge Report. The five workshops, to be held in Amman, Cairo, New York, Paris and London, are also a part of the preparation for the second session of the First Knowledge Conference 2015. The first session was held in December 2014.

Aim of the Workshops

It is envisaged that the workshops will help identify the major challenges faced by today's youth and governments in building knowledge-based societies, as well as find effective solutions to these. According to the UNDP, investing in youth and in the production of knowledge is a pressing development goal in Arab communities that enable them to address growing challenges, including strengthening good governance; the eradication of poverty and all forms of exclusion, discrimination and inequality; the empowerment of women; and fighting extremism and violence.

MBRF believes that the direct interaction with youth and policy makers of the five countries will help it to prepare the ➤

➤ agenda for the next session of the First Knowledge Conference and further position it as one of the most important international events in the field of knowledge.

“The organisation of the workshops in five major cities is aligned to MBRF’s aim to achieve sustainable development through the transfer of knowledge. The Foundation, in collaboration with the UNDP, is keen to discuss the issues raised in the Third Arab Knowledge Report with concerned parties in the Arab world as well as other countries in the world. Our effort is to find effective solutions and generate innovative ideas that can help achieve the desired goals of the report,” said His Excellency Jamal bin Huwareb, Managing Director of MBRF.

The UN Assistant Secretary-General, the UNDP Assistant Administrator and the Director of the Regional Bureau for Arab States, Sima Bahous, said that “realising the recommendations of the Third Arab Knowledge Report requires hard work at regional and national levels to develop the potential of the youth so that they can contribute to building and developing their communities, through mastering knowledge—a prerequisite for renaissance and enlightenment in any society.”

Expanding Opportunities

Bahous stressed that in order to address the

challenges that are hindering the development of the knowledge scene in the region, it is essential to expand opportunities for youth. This can be done by improving educational systems, supporting scientific research and allocating adequate resources to building knowledge-based societies. She also highlighted the need to find effective solutions to enable youth to actively participate in processes of localisation and transfer of knowledge in their communities as these are the essential foundations for development and for establishing sustainable economies.

The workshops in Amman and Cairo were held in March and enjoyed the full support and participation from relevant ministries, policy makers, experts and representatives from the country’s higher education institutions and pre-university education sectors, in addition to relevant sectors such as ICT and innovation, and youth and culture.

The third workshop will be held in New York at Columbia University in April (date to be advised). The panel will include student groups from Columbia University as well as other universities in New York City.

The UNESCO headquarters in Paris will host the fourth workshop in May while the last workshop, will be held in August, in Oxford, UK. Policy-makers, experts, student groups, international organisations and educational

The report explores the current status of Arab youth in relation to skills and values required for effective integration plus their contribution to cultural, political and social arenas.





“The organisation of the workshops in five major cities is aligned to MBRF’s aim to achieve sustainable development through the transfer of knowledge. The Foundation, in collaboration with the UNDP, is keen to discuss the issues raised in the Third Arab Knowledge Report.”

**– HIS EXCELLENCY JAMAL BIN HUWAREB,
Managing Director of MBRF**

institutions from each city are expected to participate in the workshops.

The Third Arab Knowledge Report

The Third Arab Knowledge Report 2014 builds on its two predecessors: the ‘Arab Knowledge Report 2009: Towards Productive Intercommunication for Knowledge’ and the ‘Arab Knowledge Report 2010/2011: Preparing Future Generations for the Knowledge Society’. It highlights one of the most pressing issues facing Arab societies today – the effective integration of youth in the transfer and localisation of knowledge. The report explores the current status of Arab youth in relation to skills and values required for effective integration plus their contribution to cultural, political and social arenas. The report also examines the situation of existing enabling environments and their capacity to expand opportunities for youth and build their capabilities.

The First Knowledge Conference

MBRF and UNDP launched the Third Arab Knowledge Report in December 2014 during the First Knowledge Conference organised by MBRF under the patronage of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai. The conference was the first event of its kind in the region to focus on the transfer and localisation of knowledge, aimed at building societies and economies that apply knowledge to create sustainable development and prosperity for all. The event attracted wide participation from international and regional influencers and thought-leaders in the knowledge domain.

THOUGHT LEADERS TO MEET IN JORDAN

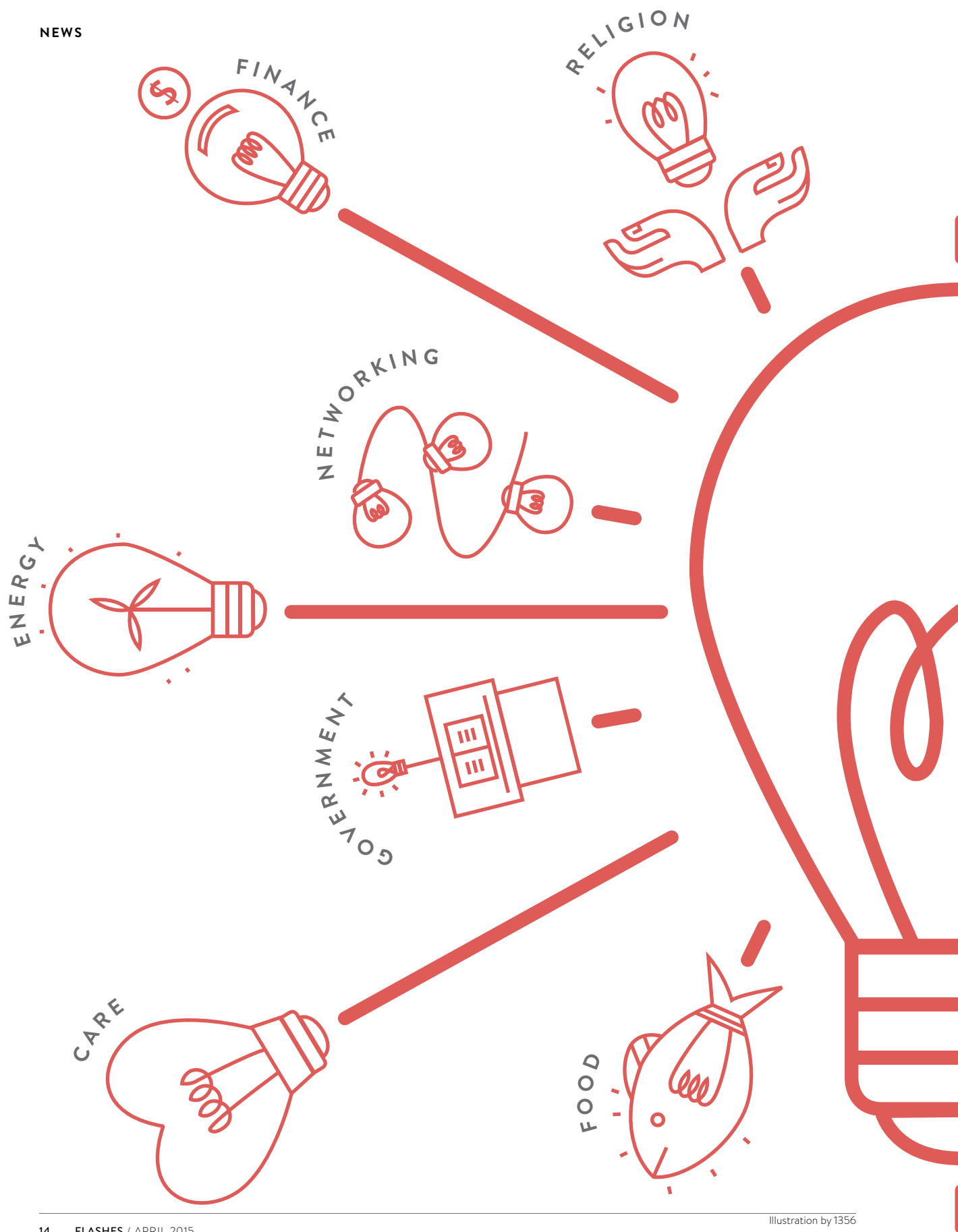
More than 200 university students, education experts and specialists in the field of knowledge will congregate in the Jordanian capital, Amman,

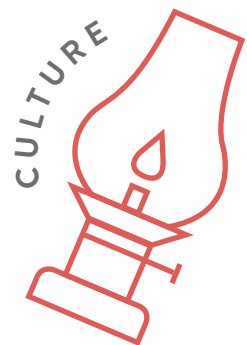
to take part in a workshop and panel discussion, jointly organised by Mohammed Bin Rashid Al Maktoum Foundation (MBRF) and the United Nations Development Programme (UNDP). The workshop will discuss key findings of the Third Arab Knowledge Report, launched during the First Knowledge Conference in December 2014.

The workshop in Jordan is the first in a series of five workshops that MBRF will host in five Arab and international cities in collaboration with the UNDP. The speakers at the Jordan workshop are Zena Ali-Ahmad, UNDP Jordan Country Director; Jamal Bin Huwareb, Managing Director of MBRF; Dr. Khalid Wazani, leading economist and financial expert; Dr. Ekhleif el Tarawneh, President of the University of Jordan; Dr. Omar Al-Jarrah, President of the Amman Arab University; and Prof. Reda Shibli Khawaldeh, President of Mutah University. Additionally, a bevy of erudite academics, professionals and university students, as well as a number of policy-makers, experts and representatives from relevant sectors will also participate in the event.

The workshop will include discussions on the key findings of the Third Arab Knowledge Report, as well as a panel discussion highlighting the role of the higher education sector in the development and transformation of knowledge and the need for Jordanian and Arab universities to develop educational approaches that promote a knowledge-based society.

MBRF believes the panel discussions will strengthen and promote the culture of collaboration between academics, faculty members and university students. “The panel discussions will provide us with the opportunity to engage directly with the youth to listen to their views and identify their needs. It will also help us to find innovative solutions that meet the aspirations of Arab youth,” said Jamal Bin Huwareb, Managing Director of MBRF. ↑

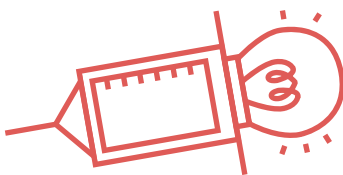




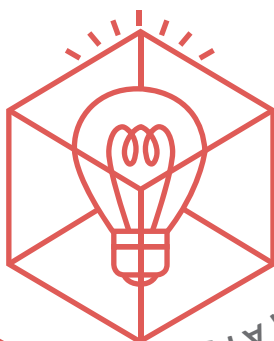
CULTURE



TECHNOLOGY



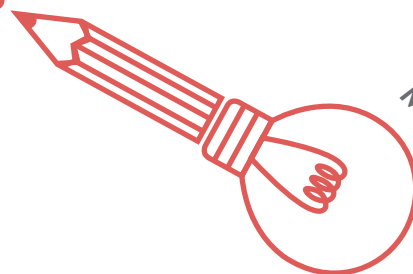
HEALTHCARE



REAL ESTATE



ENVIRONMENT



MEDIA

ON THE INNOVATION TRAIL

*INNOVATION IS THE
DRIVING FORCE
IN DEVELOPMENT >*



From emerging to advanced economies, across the globe, innovation is being named as the driving force for development. The capability to innovate and to bring innovation successfully to each of their sectors will become crucial determinants of the global competitiveness of nations over the coming decade. There is growing awareness among policymakers that innovative activity is the main driver of economic progress, social well-being as well as a potential factor in meeting global challenges in domains such as the environment and health. Not only has innovation moved to centre-stage in economic policy making, but there is a realisation that a coordinated, coherent, “whole-of-government” approach is required.

Year 2015 has been named as the Year of Innovation by the UAE’s cabinet, in line with the directives of His Highness Shaikh Khalifa Bin Zayed Al Nahyan, President of the UAE and Ruler of Abu Dhabi who stressed the importance of innovation to the UAE’s strategy. It is envisaged that the Year of Innovation will inspire efforts, consolidate energies and

intensify the building of work teams in federal, local and private sectors to achieve the UAE’s vision to build a stable future.

Staunchly supporting the movement for innovation is Sheikh Mohammad Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai. “Today, more than ever, we need to stimulate the spirit of innovation in our youth, and establish environments that encourage innovation in our communities, universities and schools. We need to establish methodologies for research, investigation, and exploration in our new generations, and we need to urge and push our government and private sectors to explore new areas for the development of our economy,” he said.

Earlier this year, Sheikh Mohammed dubbed the third Government Summit (8-11 February 2015), the summit of innovation, prosperity and unrelenting determination. Held under the theme *Shaping Future Governments*, Sheikh Mohammed named innovation as the key driver for the nation’s growth and said that governments must be engines of innovation.

“Innovative governments attract talent, perform efficiently, and continually upgrade

Third
Government
Summit

their systems and services. They empower citizens to cultivate their collective energy and develop their potential and thus become drivers for their countries' growth and advancement in the world arena. Above all, they value human minds and help people become better guardians and builders of our planet."

TOPPING GLOBAL RANKINGS

The UAE was ranked as the 12th most competitive nation globally in a recent report released by the World Economic Forum. It was rated second globally for the effectiveness of government spending, the impact of taxes on investment, the lack of trade barriers, the quality of its aviation infrastructure and the government's ability to procure the most advanced technology. It also ranked highly in terms of the absence of government bureaucracy and citizens' confidence in government and leadership. The UAE government is also ranked as the most efficient in the world by the International Institute for Management Development, Switzerland, and now Sheikh Mohammed desires that the government be the most innovative as well.

His emphasis on innovation and the aim to make the UAE the first globally in the field of innovation is not in words alone. Last year, Sheikh Mohammed launched several strategies to propel the country on to the innovation trajectory.

NATIONAL INNOVATION STRATEGY

At the heart of the pursuit of innovation lies the National Innovation Strategy (NIS) that aims to make the UAE one of the most innovative nations in the world within the next six years. Sheikh Mohammed names the NIS as the national priority for the country's programme of development and progress and as a primary tool to achieve Vision 2021. The NIS will become an engine for the growth of distinctive skills, capabilities and creativity across the nation.

It proposes to stimulate innovation in seven key sectors: renewable energy, transport, education, health, technology, water and space. NIS recognises that innovation is the key to achieving excellence in these sectors. Additionally, the strategy outlines practical initiatives in each of its seven priority sectors. Its first phase includes the implementation of 30 national initiatives such as new legislation, innovation incubators, investment in specialised skills, private sector incentives, international research partnerships and an innovation drive within government over the next three years.



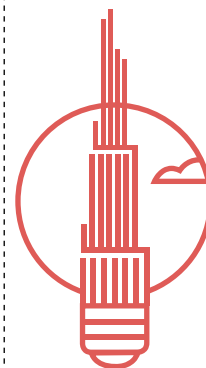
CREATING A GLOBAL INNOVATION POWERHOUSE

In October 2014, HH Sheikh Mohammed announced a Dhs4.5 billion vision for Dubai's Internet City and Media City. The new projects will be completed within five years and will establish the zones as global powerhouses for innovation, media and content. The projects include 10 million sq. ft. of space for innovation complexes, technology laboratories and smart buildings. The advanced infrastructure will in turn serve to attract top global talent and create an environment that will nurture and support what will become the most productive and innovative environment in the world.

"Dubai Internet City has supported the transformation of our national economy into a knowledge economy. We have kept pace with great changes in technology. Now the time has come for the Internet City to become a creator of change," Sheikh Mohammed said at the time.

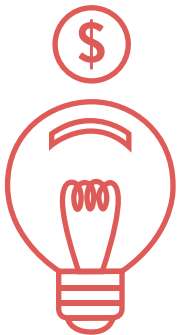
The new bundle of initiatives will make the UAE the innovation capital for more than 2 billion people who live in the surrounding region. The plan aims to boost the number of companies in the content, knowledge, technology, education, development and research sectors to 10,000 and to grow the number of people employed in these areas to 100,000.

Under the initiative, the investment will also fund the development of an Innovation Hub, a 1.6 million sq. ft. development located in the heart of Dubai Internet City, Dubai Media City and Dubai Knowledge Village. It will focus on innovation across technology, new media, smart education and sciences.



UAE WAS RANKED THE 12TH MOST COMPETITIVE NATION GLOBALLY IN A RECENT REPORT RELEASED BY THE WORLD ECONOMIC FORUM

The UAE is already the most innovative Arab nation.



**THE CURRENT
ANNUAL
INVESTMENT
IN INNOVATION
IS WORTH
DHS14 BILLION**



“The UAE is already the most innovative Arab nation. Our target is to be among the most innovative nations in the world. The competitiveness race demands a constant flow of new ideas, as well as innovative leadership using different methods and tools to direct the change,” Sheikh Mohammed said at the launch of the strategy.

NIS works along four parallel tracks:

- ☞ Anchoring a stimulating environment for innovation in the form of supportive institutions and laws. This will shape specialised entities such as innovation incubators as well as technological infrastructure to fuel innovation in all sectors. It will also focus on research and development in various innovation fields.
- ☞ Developing government innovation by institutionalising innovative practices with the support of an integrated system of modern tools. The strategy requires all government entities to reduce spending by one per cent and to dedicate the savings to research and innovation projects. National training and education programmes on innovation will also be launched.
- ☞ Encouraging private sector innovation by stimulating companies to establish innovation and scientific research centres, to adopt new technologies and to develop innovative products and services. In the years to come, the UAE will attract pioneering international firms in key innovation sectors, establish innovation communities and zones, and support applied research in areas of national priority. This is also expected to enhance UAE’s position as an international centre to test new innovations.
- ☞ Instilling in individuals highly innovative skills by concentrating on science, technology, engineering and mathematics, including the creation of educational material for schools and universities. The aim is to establish a national culture that encourages innovation and entrepreneurship through partnerships between the public, private and media sectors.

NIS reinforces that a flexible and creative economy based on a national culture of innovation is



the fastest and most sustainable way to reinforce the country's competitiveness on a global level. The current annual investment in innovation is worth Dhs14 billion of which Dhs7 billion goes to research and development. Innovation spending will rise significantly in the years to come.

The National Innovation Strategy includes 16 indicators to measure progress. Government-sector indicators include the percentage

A GENERATION OF INNOVATORS

In February this year, the Abu Dhabi Government launched a mission to create and support a pool of future innovators whose job will be to increase the diversity of the economy.

Abu Dhabi's Technology Development Committee (TDC) will open work spaces, including mentors, for young innovators to develop their ideas. It will also conduct workshops for schools and universities in science, technology and innovation in its programme, aimed at those aged 13 and up.

of innovative ideas and the proportion of budget allocated to innovation. Private-sector indicators include R&D investment and the knowledge profile of the workforce. Global indicators include an overall measure comparing countries' innovation capabilities, as well as indicators for the protection of intellectual property, the creation of patents and the availability of scientists and engineers.

NATIONAL INNOVATION COMMITTEE

The National Innovation Committee (NIC) was set up to monitor the implementation of the objectives outlined in the NIS. The formation of NIC was directed by Sheikh Mohammed and it includes a number of federal government entities. Along with overseeing the implementation of NIS, the NIC is also mandated with looking into the policies and initiatives that come from it.

The NIC will also enhance coordination, cooperation and exchange of expertise among federal and local entities, follow up progress of innovation initiatives and its related index nationwide and engage with the private sector.

CENTRE FOR GOVERNMENT INNOVATION

The Mohammed Bin Rashid Centre for Government Innovation is another step Sheikh Mohammed has taken towards establishing creativity as a key pillar of government. The Centre will provide the necessary tools to the public sector to encourage and motivate innovation. It will also coordinate innovation labs in government entities to build capacity for innovation across the national workforce.

In a move that will position the UAE as a hub for innovation in government services, the centre will build a national database for innovative government initiatives and best international practices in this field. It will also consolidate individual initiatives by government entities into a unified framework to better serve federal and local government entities in the country and preserve intellectual rights associated with innovations in this area. In the near future, the centre aims to forge partnerships with specialised international institutions, universities and centres that drive innovation in government services.

In the words of His Highness Sheikh Mohammed Bin Rashid AL Makhtoum, "For governments, innovation is an existential question. Only those that sustain innovation can drive change in the world, because these are the governments that never grow old." 



INNOVATION IS ANOTHER STEP SHEIKH MOHAMMED HAS TAKEN TOWARDS ESTABLISHING CREATIVITY AS A KEY PILLAR OF GOVERNMENT.

JIM KOUZES LEADER

SBODN
9.10.12

Individual leaders have little or no impact on the organizations they lead.

G. Makunda
Indispensable

What **WORDS** come to describe

Everything you need to be a successful leader you already have

- Intelligence - to see things & fix it
- Heart - to stay motivated
- Courage - not to give up

Melissa Poe Hood

PWA - Positive Work Attitude

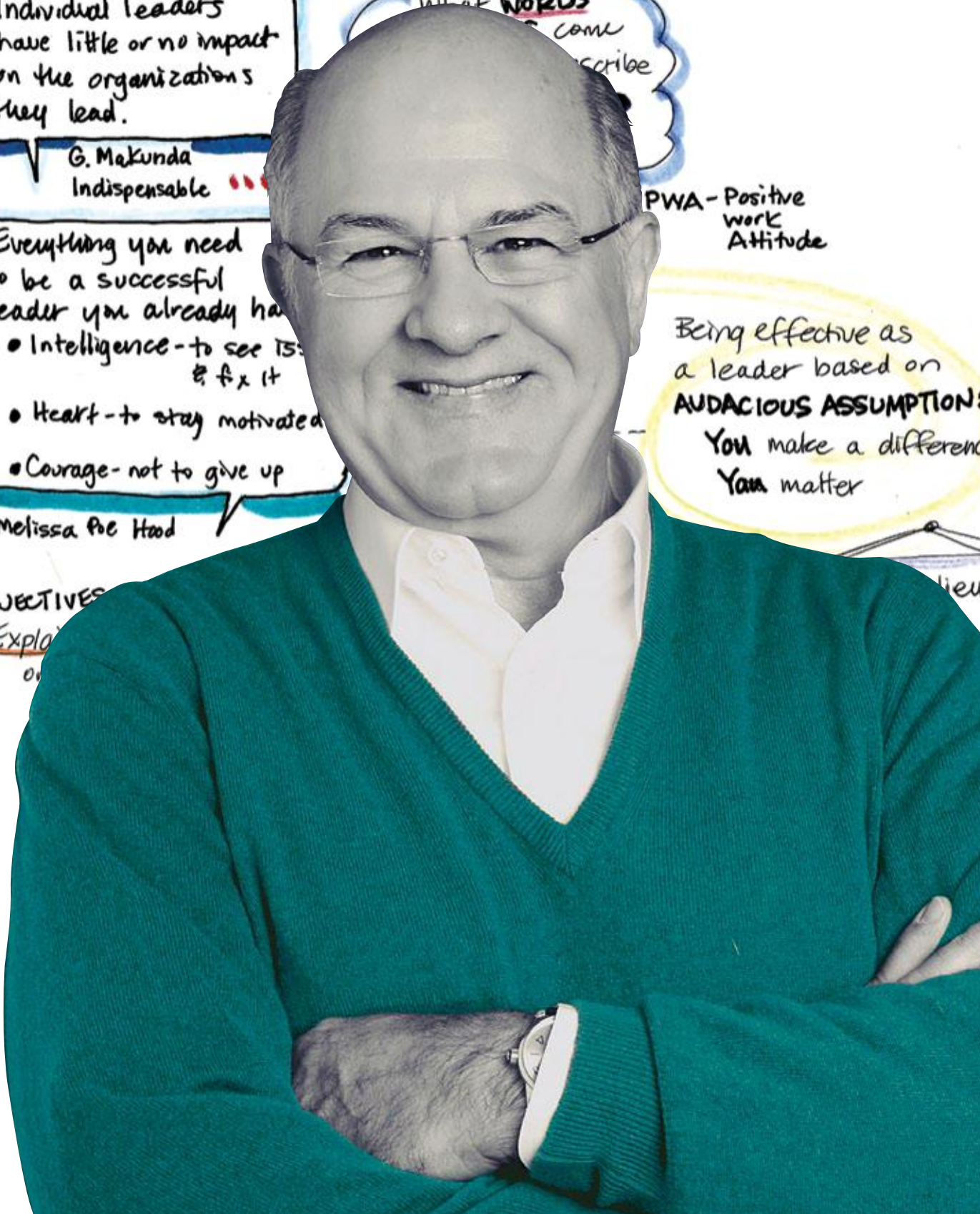
Being effective as a leader based on **AUDACIOUS ASSUMPTIONS**

You make a difference
You matter

OBJECTIVES

Explains

on



THE LEADERSHIP CHALLENGE

Jim Kouzes, co-author of the 'The Leadership Challenge', gives his insight into what makes a good business leader.

What are some of the main challenges for modern day leaders?

Challenge is the defining context for leadership. For over three decades Barry Posner and I have been asking people to tell us about their personal-best leadership experiences, and the stories are consistently about dealing with adversity and hardship, or doing something no one had ever done before, or turning around a losing operation, or starting something from scratch, or breaking away from tradition, or installing untested processes, or struggling with poorly performing units. They were not about maintaining the status quo, but rather about changing the business-as-usual environment. This is a critical lesson to keep in mind, because no one ever got anything extraordinary done without initiating and accepting a challenge. Challenge, it turns out, is the crucible for greatness. Exemplary leaders view challenge as opportunities to excel.

With that perspective in mind, leaders today will be dealing with a variety of challenges that include the rise of emerging markets that are shifting the centres of commerce, rapid technological advancements that are enabling connectivity globally, aging populations that are putting pressure on social support systems in some countries, and the large number of unemployed or underemployed young people in other countries. In the work that I do in leadership development, there is a huge concern about the lack of a sufficient number of trained leaders to move into more senior roles. They can't keep up with the demand for more and better leaders, and young people don't have enough opportunities to learn to lead. For example, in one study I read 90 per cent of employers want to see leadership development opportunities as part of every student's educational experience, but fewer than six per cent of universities have formal leadership development programmes.

Another issue is the low levels of trust in leaders globally, in both the private and public sectors. Trust started falling precipitously during the recession that began in 2008, and while it has started to improve, trust in leaders is still at a very low level in many countries around the world. That is a major challenge to leaders because without people's trust one cannot lead effectively.

SHIP

QUESTION IS...

WHAT
difference you
will make

Tell us about a time
when you were at your
PERSONAL BEST
as a leader

What benefits can a good leader bring to a company?

We have been tracking the impact leaders have on their constituents and the organisation for many years. We have analysed data from well over a million respondents and hundreds of other researchers have used our model and the Leadership Practices Inventory to gather data from thousands more. The findings from all these studies point to one very clear conclusion: Managers, volunteers, pastors, government administrators, military officers, teachers, school principals, students, and other leaders who use the Five Practices of Exemplary Leadership more frequently are seen by others as better leaders.

For example, they

- ⇒ More successfully meet job-related demands
- ⇒ More effectively represent their units to upper management
- ⇒ Create higher-performing teams
- ⇒ Increase sales and customer satisfaction levels
- ⇒ Foster renewed loyalty and greater organisational commitment
- ⇒ Increase motivation and the willingness to work hard
- ⇒ Facilitate high patient satisfaction scores and meet family member needs
- ⇒ Promote high degrees of involvement and engagement in schools

Additionally, people working with leaders who demonstrate the Five Practices of Exemplary Leadership are significantly more satisfied with the actions and strategies of their leaders; they feel more committed, excited, energised, influential, and powerful; and they are more productive. In other words, the more you engage in the practices of exemplary leadership, the more likely it is that you'll have a positive influence on others in the organisation.

What traits make the best leader?

The truth is that credibility is the foundation of leadership. This is the inescapable conclusion we've come to after thirty years of asking people around the world what they look for and admire in a leader, someone whose direction they would willingly follow. The key word here is 'willingly'.

It is one thing to follow someone because you think you have to "or else", and it's another when you follow a leader because you want to. What does it take to be the kind of person, the kind of leader, whom others want to follow, doing so enthusiastically and voluntarily? It turns out that the believability of the leader determines whether people will willingly give more of their time, talent, energy, experience, intelligence, creativity, and support. Only credible leaders earn commitment, and only commitment builds and regenerates great organisations and communities.

Additionally we find that there are Five Practices of Exemplary Leadership that account for most of what leaders do to engage constituents and improve performance. These practices are:

- ⇒ **Model the Way:** they clarify values and set an example based on a set of shared values.
- ⇒ **Inspire a Shared Vision:** they envision an uplifting future and they enlist others in a common vision.
- ⇒ **Challenge the Process:** they search for opportunities and experiment and take risks, learning from the accompanying mistakes.
- ⇒ **Enable Others to Act:** they foster collaboration and strengthen others.
- ⇒ **Encourage the Heart:** they recognise contributions and celebrate the values and the victories.

Do you think these vary depending on the country/region?

In our research we find that the Five Practices of Exemplary Leadership are universally applicable. Using our assessment tool, the Leadership Practices Inventory, we've examined the behaviours of leaders from over 70 countries, and we've discovered that while the specific scores can vary from individual to individual, the pattern of responses is exactly the same. That is, no matter what country a leader is from, the more frequently a leader demonstrates each of these practices the more engaged constituents are. Constituents are more committed, feel their work is meaningful, have greater trust in leaders, have a greater sense of teamwork, and so on, when they experience their leaders behaving in ways that are consistent with the practices of Model, Inspire, Challenge, Enable, and Encourage.



**CREDIBILITY
IS THE
FOUNDATION
OF BEING A
LEADER**

In fact, our research shows that when you combine nine demographic variables including gender, age, tenure, level, country, education, etc., together these variables account for less than one per cent of the variance in why people are engaged in their work. In other words, it makes almost no difference where you are from, how old you are, what type of organisation you work in, whether you are male or female, or any of the other demographic variables. What matters are the actions leaders take, and those actions are applicable globally.

None of this is to say that people Model, Inspire, Challenge, Enable, and Encourage exactly the same from organisation to organisation or country to country. Context does matter, and leaders have to adapt to the context. In Saudi Arabia and the United Arab Emirates, there are customs that make it necessary for leaders to adapt, for example, how they might recognise someone for a job well done; however, the universal truth is that all individuals respond positively to being recognised for their contributions.

What CEOs would you list as being prime examples of good leadership?

I think it's important to say that there are many CEOs who exemplify good leadership. For example, Rachel Argaman, CEO of TFE Hotels in Australia, Ed Catmull, president of Pixar and Disney Animation Studios, or Doug Conant, former CEO of Campbell Soup, are three examples that immediately come to mind. And in his book, *Flashes of Thought*, His Highness Sheikh Mohammed bin Rashid Al Maktoum articulates many of the principles that we find in exemplary leaders everywhere. But it's important to point out that leadership is set of skills and abilities that are learnable by anyone. In my and Barry Posner's research, the vast majority of leaders are not CEOs and are more likely to be middle level managers or non-managers.

Throughout our work we tell stories of ordinary people who've gotten extraordinary things done. They are from all over the globe, from all age groups and walks of life. They represent a wide variety of organisations, public and private, government and NGOs, high-tech and low-tech, small and large, schools and professional services.

Chances are you haven't heard of most of them. They're not public figures, famous people, or mega-stars. They're people who might live next door or work in the next cubicle over.

We've focused on everyday leaders because leadership is not about position or title. It's not about organisational power or authority. It's not about celebrity or wealth. It's not about the family you are born into. It's not about being a CEO, president, general, or prime minister, and it's definitely not about being a hero. Leadership is about relationships, credibility, and about what you do.

You don't have to look up for leadership. You don't have to look out for leadership. You only have to look inward. You have the potential to lead others to places they have never been before.

How are technology and other advancements changing the role of leadership??

Technological advancements are making leadership at once easier and more challenging. Communications technology, for example, makes leading easier because leaders can now connect with more of their constituents faster and more effectively than ever before. With the tools of social media, leaders can have virtual town hall meetings, they can do instant polls to take the pulse of their constituents, they can gather suggestions and creative ideas more broadly, and they can engage others in more meaningful ways.

But for these same reasons technological advances mean that it's much easier for constituents to voice their opinions, offer customer suggestions, complain about the kinds of service they are receiving, and recruit people to their causes. And this is exactly why trust and credibility are so important. When people see their leaders as credible and worthy of their trust, these tools can truly enhance the work of leaders. But, when there is little trust and credibility, then the results can be very disruptive for leaders. †

JIM KOUZES is the co-author of the bestselling 'The Leadership Challenge' and the Dean's executive fellow of leadership, Leavey School of Business, Santa Clara University



THE FIVE PRACTICES OF EXEMPLARY LEADERSHIP: MODEL, INSPIRE, CHALLENGE, ENABLE, AND ENCOURAGE



Uncovering the secret world of the Plastisphere

The trash we throw into the ocean has become the breeding ground for a new ecosystem called the plastisphere.

We all know that pollution can destroy ecosystems, but, scientists have recently found that it can create ecosystems too. Tracy Mincer, an associate scientist at Woods Hole Oceanographic Institution in Woods, discovered this new ecosystem along with Linda Amaral-Zettler at the Marine Biological Laboratory (MBL) and Erik Zettler at the SEA Education Association, both also in Woods Hole. The team named their discovery the 'plastisphere' where a diverse multitude of microbes are colonising and thriving on flecks of plastic that are polluting the oceans. Since then, researchers have been trying to find out why these potentially dangerous bacteria live on the plastisphere, how they got there and how they are affecting the surrounding ocean.

Scanning electron micrographs reveal a complex geography of microbial life on the

cracked and pitted surfaces of plastic pieces that have been aging and weathering in the ocean. The researchers found at least 1000 different types of bacterial cells on the plastic samples, including many individual species yet to be identified. These included plants, algae, and bacteria that manufacture their own food (autotrophs), animals and bacteria that feed on them (heterotrophs), predators that feed on these, and other organisms that establish synergistic relationships. It is astounding that these complex communities exist on plastic bits hardly bigger than the head of a pin, and they have arisen with the explosion of plastics in the oceans in the last 60 years.

What is even more remarkable is that the organisms inhabiting the plastisphere are different from those in surrounding seawater.



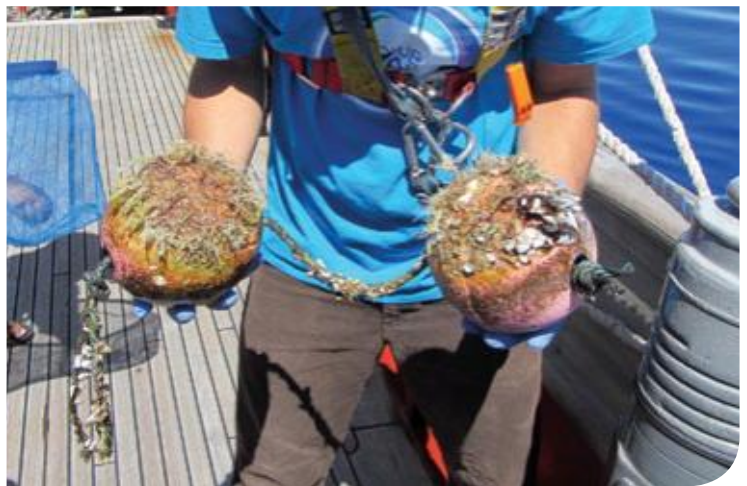
Image: Erik Zettler/Sea Education Association

The plastic debris is acting as an artificial microbial reef for the microbes which are able to survive by clinging onto the plastic bits. Evidence suggests that these “super-colonisers” form detectable clusters on the plastic in minutes. Other findings indicate that some types of harmful bacteria favor plastics more than others. Scientists are also exploring if fish or other ocean animals are helping these pathogens thrive by ingesting the plastic. This could allow bacteria to acquire additional nutrients as they pass through the guts of fish.

Further studies have revealed that the platisphere is affecting the ocean ecosystem, and can pose potential harm to other life forms. Since plastics persist for long periods of time, the floating debris has become a new mode of transportation, acting as rafts that can transmit harmful microbes, including disease-causing pathogens and harmful algal species, across oceans. One plastic sample the researchers analysed was dominated by bacteria that cause cholera and gastrointestinal maladies.

On the other hand, the scientists also found evidence that the platisphere could also modify plastic debris to make it less harmful to marine ecosystems. The microbes found in the platisphere may play a role in degrading plastics. They saw microscopic cracks and pits in the plastic surfaces that they suspect were made by microbes embedded in them. This information could also help reduce the impact of plastic pollution in the ocean – for instance, plastics manufacturers could learn how to make their products so they degrade at an optimal rate.

“One of the benefits of understanding the platisphere right now and how it interacts



with biota in general, is that we are better able to inform materials scientists on how to make better materials and, if they do get out to sea, have the lowest impact possible,” said Mincer.

Since their original findings, the researchers have made further discoveries including evidence about how the plastic is colonised; how it interacts with other marine organisms; the similarities and differences between platisphere communities in different locations and on different types of plastic. This research could help scientists determine the age of plastic floating in the ocean, which could help them understand how it breaks down in the water. It could also potentially aid in determining where the plastic debris came from, and how the plastic and the microbes that live on board could impact organisms that come into contact with them.

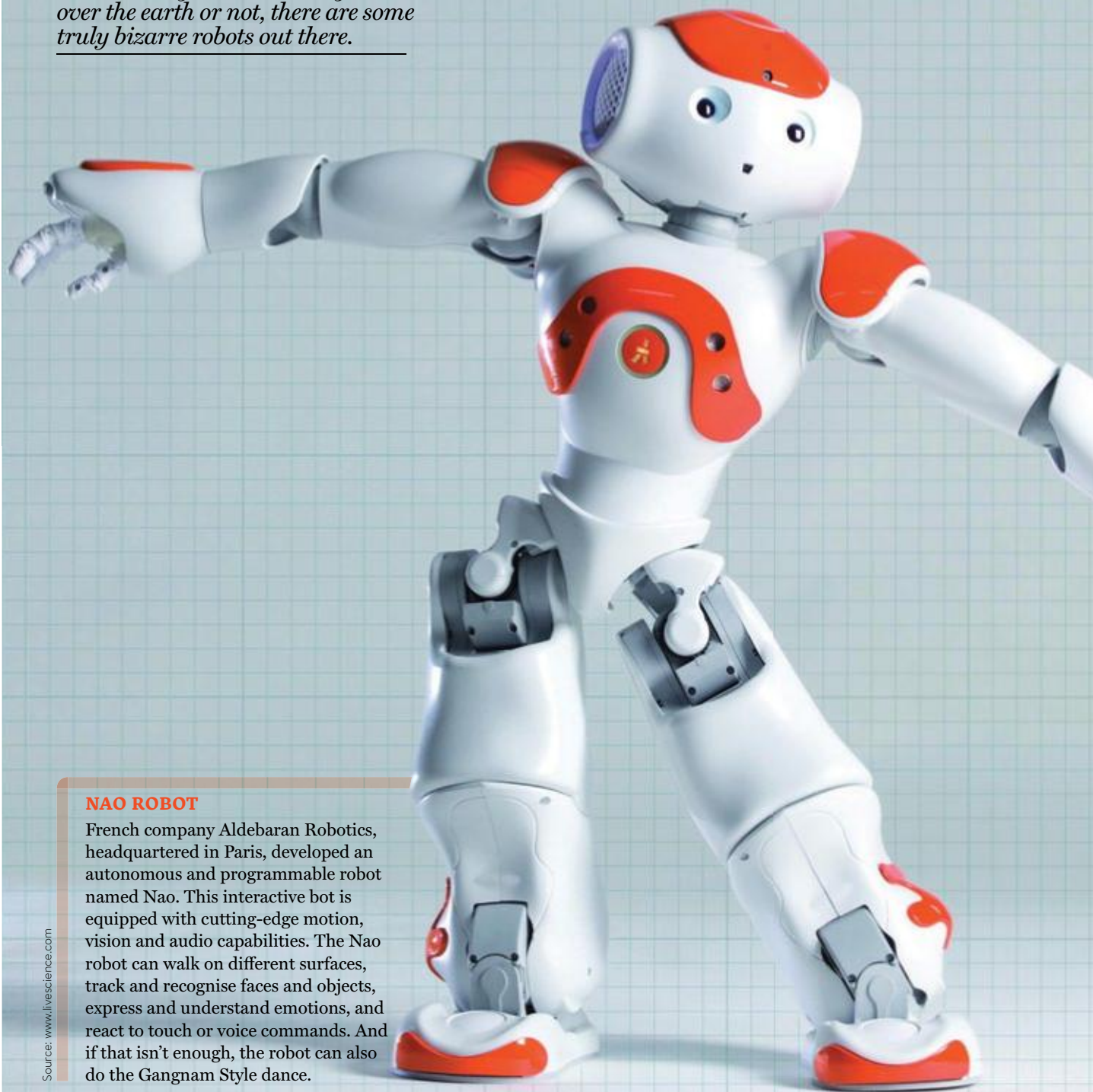
“It is clear,” said Amaral-Zettler, “that the platisphere definitely has a function out there in the ocean” and these experiments seek to quantify what it is. †



**THE RESEARCH
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The World's Strangest Robots

Whether they will eventually take over the earth or not, there are some truly bizarre robots out there.



NAO ROBOT

French company Aldebaran Robotics, headquartered in Paris, developed an autonomous and programmable robot named Nao. This interactive bot is equipped with cutting-edge motion, vision and audio capabilities. The Nao robot can walk on different surfaces, track and recognise faces and objects, express and understand emotions, and react to touch or voice commands. And if that isn't enough, the robot can also do the Gangnam Style dance.

Source: www.ilivescience.com

Robots first came into the world as figments of imagination in works like Fritz Lang's *Metropolis* and Isaac Asimov's *I, Robot*. Since then they have admirably moved from page to screen to real life. In fact, Ray Kurzweil, director of engineering at Google, has estimated that robots will reach human levels of intelligence by 2029. With the human fascination for these machines continuing to escalate, here's a list of some of the strangest robots ever created.



SNAKE-BOT

The ACM-R5 is a snakelike robot that can crawl around on dry ground or swim through water. The amphibious bot, created by Japanese company HiBot, is equally fascinating and terrifying as it deftly twists and turns sinuously underwater. Its rigid structure comes with extra dust sealing and water proofing enabling it to perform in any severe environment.

BIGDOG

Almost a decade ago Boston Dynamics created a four-legged robot, called BigDog, to serve as a robotic pack mule for the military. The project was funded by the Defence Advanced Research Projects Agency (DARPA), the branch of the U.S. Department of Defence tasked with developing new technologies for the military. BigDog walks on four sturdy legs, and it can accompany soldiers across terrain deemed too rough for vehicles. The robot can lug 340 pounds (150 kilograms) of cargo and is capable of keeping up a pace of 4 mph (6.4 km/h).

H1N1 FLU ROBOT

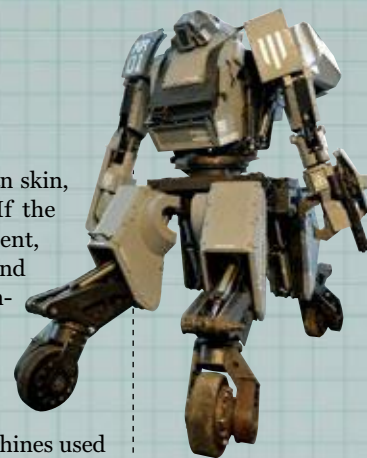
This humanlike contraption was designed to simulate the symptoms of the H1N1 (swine) flu to help train Japanese doctors. The robot, which is



covered in material resembling human skin, can sweat, cry and even convulse. If the robots do not receive proper treatment, their symptoms gradually get worse, and in some cases, they can even stop breathing and 'die.'

KURATA ROBOT

The massive Kurata robot could easily be mistaken for the make-believe machines used in Hollywood blockbusters such as *Transformers* and *Real Steel*. The Japanese robot, made by Suidobashi Heavy Industry, stands a menacing 13-feet-tall (4 metres), and is equipped with 'machine guns' and 'rocket launchers' in its arms (they are actually BB Guns and fireworks). These huge humanoid machines can be piloted manually from a cockpit inside the robot, or they can be controlled remotely using a smart phone.



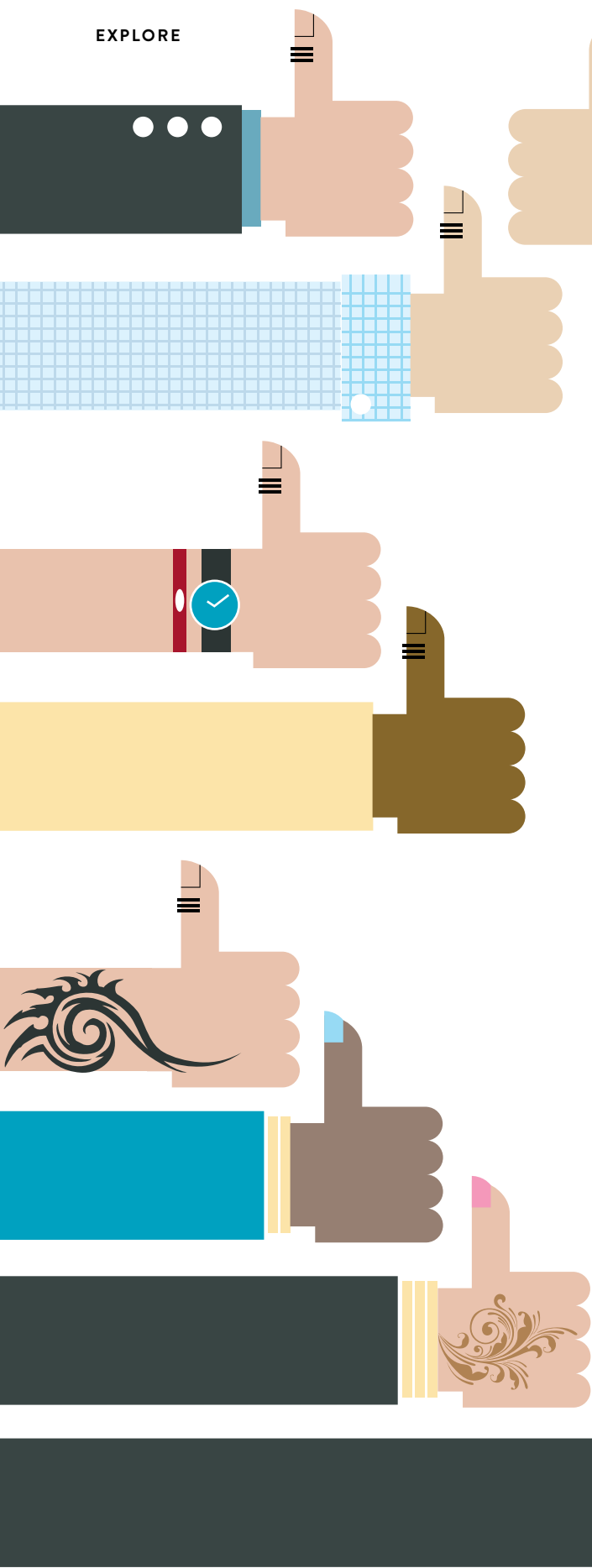
Kurata Robot

PETMAN PROTOTYPE

Boston Dynamics' PETMAN robot walks like a person, wears sneakers, and can even sweat. This Terminator-like machine was built to test chemical protection clothing for the U.S. Army. "PETMAN will balance itself and move freely; walking, crawling and doing a variety of suit-stressing calisthenics during exposure to chemical warfare agents," the company says. PETMAN will also simulate human physiology within the protective suit by controlling temperature, humidity and sweating when necessary, all to provide realistic test conditions. †



Clockwise:
PETMAN
prototype;
H1N1 Flu Robot;
BigDog



Super Thumbs!

Smartphones are giving our thumbs super powers, new research reveals.

Scientists of the future might look back on the 21st century as a pivotal moment in the evolution of the human thumb. They will see how our addiction to smartphone technology, and our intense need to share and record our lives via touchscreens became overwhelming – and then eventually led to a change in the way our thumbs and brains worked together.

According to a new research by Arko Ghosh from the Institute of Neuroinformatics of the University of Zurich and ETH Zurich, more touchscreen use translates directly into greater brain activity. It all started when Ghosh and his colleagues realised that our newfound obsession with smartphones could be a grand opportunity to explore the everyday plasticity of the human brain. Not only are people suddenly using their fingertips, and especially their thumbs, in a new way, but many are also doing it for long periods of time, day after day. “The digital technology we use on a daily basis shapes the sensory processing in our brains – and on a scale that surprised us,” says the neuroscientist.

Ghosh’s intriguing research explores the workings of the somatosensory cortex – the part of the brain which is in effect our ‘emotional centre’. Every part of the human body – from jaws to toes, including thumbs – has an extremely adaptable dedicated processing area in the somatosensory cortex. The authors use the example of violinists, in whom the area representing the fingers that guide the instrument is larger than in non-violinists. This prompted the team to investigate the impact that the finger dexterity of smartphone users has on the brain. “Smartphones offer us an opportunity to understand how normal life shapes the brains of ordinary people,” said Ghosh.

INCREASED SMARTPHONE USE CAUSES GREATER BRAIN ACTIVITY

Along with co-researchers from the University of Fribourg, Ghosh studied activation in the sensorimotor cortex, which is triggered by finger movements. Electroencephalography (EEG) was used to measure the cortical brain activity in 37 right-handed people – 26 of the participants were touchscreen smartphone users and 11 were users of old cell phones. 62 electrodes were placed on each of the test subject's heads to record movements of the thumb, forefinger and middle finger. The results revealed that the cortical representation in touchscreen smartphone users differed compared to people with conventional cell phones. The degree of change in cortical activity was influenced by the frequency of smartphone usage. Increased smartphone usage in the previous ten days caused greater signal activity in the brain. This strongest correlation was found in the area that represented the thumb.

"At first glance, this discovery seems comparable to what happens in violinists," said Ghosh. But there were major differences between smartphone users and those violinists. The length of time a smartphone user has owned and used their device has no impact. However, for violinists, the activity in the brain was influenced by the age at which they started playing. Also, there was a linear connection between the activation in the brain and the most recent use of a Smartphone, while there was

no evidence of this for violinists in earlier studies."

The main findings of the study were:

- ⇒ Smartphone users have an enhanced thumb sensory representation in the brain.
- ⇒ The brain activity is proportional to use accumulated over the previous 10 days.
- ⇒ An episode of intense use is transiently imprinted on the sensory representation.
- ⇒ Sensory processing in the brain is adjusted on demand by touchscreen phone use.

The authors concluded that, remarkably, "the thumb tip was sensitive to the day-to-day fluctuations in phone use: the shorter the time elapsed from an episode of intense phone use, the larger the cortical potential associated with it. The results indicate that repetitive movements on touchscreens altered sensory processing from the hand and that thumb representation was updated daily depending on its use".

This work seems to demonstrate the plasticity of the human brain and confirms that, as we become more and more addicted to smartphone use in our everyday lives, our brains are responding accordingly. We are changing and adapting neurologically to that touchscreen dependency. The University of Zurich team believes there is more to be learned in this field and say that "the day-to-day plasticity of the human brain could be further researched based on our smartphone usage".

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Source: www.redorbit.com

Illustration: 1356



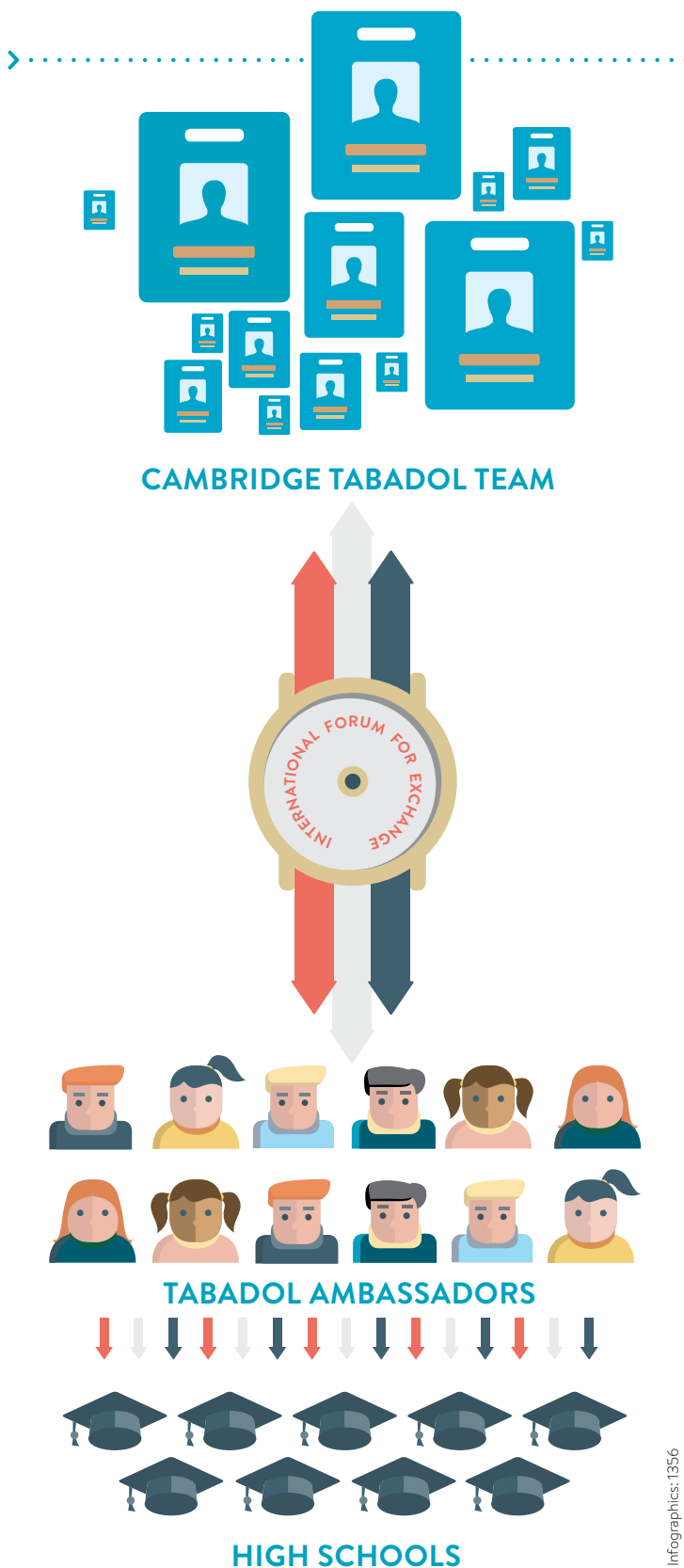
HARNESS- ING THE POWER OF THE YOUTH

*The Cambridge
Tabadol Project is
promoting creativity
in education through
an international
student network*



The Middle East is experiencing an unprecedented “youth bulge.” With over 30 percent of its population between the ages of 15 and 29, representing over 100 million youth, this is the highest proportion of youth to adults in the region’s history. And according to UNESCO’s Arab Youth: Civic Engagement and Economic Participation Report, young men and women in the Arab region today are the most educated.

The Wittgenstein Centre for Demography and Global Human Capital in Austria forecasts that, in Egypt, the total number of graduates of higher-education institutions will reach nearly 18.2 million in 2035. Similarly in Morocco, the number of total higher-education graduates will cross the 3.5 million students mark. Jordan faces an increase in the number of higher-education graduates to almost 3 million in 2035.



Another research shows that the Levant's youth have some of the region's most sought-after talents due to their high quality of education and hard-working attitudes. It is evident then that today's Arab youth have the potential to make considerable contribution to the development of the region. By implementing sound economic and social policies, these countries can take advantage of the youth bulge and translate it into a dividend that promises better economic and social outcomes.

This means that their involvement can yield rich benefits if utilised properly. However, despite the strength of the Arab youth in both numbers and skills, a gap exists between recruiting companies and graduates who have studied STEM (science/technology/engineering/mathematics) subjects at university. Many regional employers put this down to the lack of practical skills amongst applicants.

CAMBRIDGE TABADOL PROJECT

This is where the Cambridge Tabadol project comes in. Tabadol means 'exchange' or 'partnership' in Arabic, and so the aim of the Cambridge Tabadol project is to bridge this gap by partnering with university students in the region to establish a youth-led STEM outreach programme for schools. Through the spirit of friendly exchange, the project hopes to build a network of motivated university students who will deliver these workshops in local schools, thereby imparting the necessary practical, creative and critical thinking skills; as well as building two-way inspiration channels and placing positive role models for the next generation of leaders.

The project's long-term aim is to establish the idea of youth-led and community-based STEM outreach in the developing world - starting with the Middle East, and, specifically, with Jordan. The Cambridge Tabadol Project is dedicated to filling the gap in practical skills evident in the Middle East and empowering young people to use science & technology to bring about positive change to their communities, countries and maybe even the world.

The Tabadol project is also supported by the Arab Innovation Network (AIN), a not-for-profit organisation that aims to create an impact in the Arab world through empowering youth.

THE TABADOL TEAM

Tabadol consists of a central hub based in the University of Cambridge, UK, and independent

hubs across universities in the Middle East. Current members have been selected from the AIN societies at Palestine's Birzeit and An-Najah universities, American University of Beirut, Jordan's Al Hussein Bin Talal University, Isra University as well as the Jordan University of Science and Technology.

Known as Tabadol ambassadors, they are responsible for mobilising local resources and building a community school network to run workshops for school students – building capacity in their community as well as developing practical skills.

HOW DOES TABADOL WORK?

Selected ambassadors from local universities are trained to lead the initiative and deliver STEM outreach workshops to local secondary school pupils between the ages of 14 to 17. This bridges the gap between tertiary and secondary education, enabling idea and knowledge exchange and inspirations through learning from role models. Last September, Tabadol asked interested students to apply for participation in the programme. They received over 300 applications from which 18 Tabadol ambassadors were finally selected.

The ambassadors carry out research in the local community in partnership with local education NGOs, school students and teachers to find out local needs, interests and skills of the students. Once this has been gauged, they devise the best engagement models with the students which range from mentorship and workshops to project-based assistance. Tabadol ambassadors also develop their own STEM workshop or improve existing workshops to fit the local needs.

The Tabadol project plans to recruit new ambassadors each year to reach more secondary school students.

Tabadol also works outside schools for added impact. It engages with various local educational organisations; technology-based, entrepreneurial hubs, local companies and even hacker spaces to develop a network of idea and knowledge exchange.

JUST THE BEGINNING

Currently Tabadol ambassadors are being trained for their new roles. So far they have had trainings with ThinkUnlimited – an Arab World programme based in Jordan which is dedicated to teaching critical and creative thinking for social change, and with social business New Meaning on “Community Research and

Engagement”, to equip them to build sustainable momentum in their communities. The project has also formed partnerships with the Google Ambassador Programme, the Jordan Children's Museum, Amman Hackerspace and Integrated Methodologies for Development. These partnerships are focussed around enabling the Tabadol Ambassadors to conduct the necessary community research, develop context-specific workshops and eventually scale and run them in schools in their community.

Over the course of the next six months, in addition to workshops, the Cambridge team and the Tabadol Ambassadors in Jordan, Palestine and the wider region plan to organise regular online meetings. The purpose of these meetings is firstly to build an international relationship and to identify the issues affecting the Levant's youth. From this information they will collaboratively build a curriculum of workshops which can then be delivered to secondary schools by the regional Ambassadors.

Although the Cambridge Tabadol initiative is still in its fledgling state and the impact of their efforts are yet to be gauged, it holds the promise to become a powerful harbinger of positive change in the Arab world. ↗

WEBSITE: WWW.CAMTABADOL.ORG

WHAT ARE STEM WORKSHOPS?

Tabadol's STEM workshops consist of topic/skills-based or project-based workshops, depending on the survey results from local secondary schools

Topic based workshops are designed to include short presentations on specific STEM topic such as water, energy or sustainable construction. This is followed by hands on activities such as building a water filter, building a wind turbine model etc to improve their understanding. Skill based workshops comprise of topic such as entrepreneurship, programming and electronics amongst others.

The project based workshops involve students in a DIY (do it yourself) project, where students identify problems/topic themselves and come up with solutions through trial and error in their design and building. The students are mentored by ambassadors during the workshops to direct them to sources of help if needed.



ORGANIS- ING FOR INNOVA- TION: OLD IDEAS ABOUT NEW IDEAS

Good organisation design can help companies become more innovative, but first you have to understand the nature of “new ideas” and how to generate them.

Not long ago, I was teaching organisation design to a group of senior executives when a somewhat tangential but insistent question rang out: “What can you tell us about innovation?” For today’s business leaders, it’s an understandable obsession. Most agree that the need to innovate is no longer confined to Silicon Valley; rapidly changing business conditions force a heavy and constant imaginative burden on all businesses that want to remain in the game long-term. There is no dearth of consultants and advisors offering to help ‘make your organisation more innovative’ (for a fee). What should you know before you buy? I have listed here what I shared with the executives during class: some of the most reliable old ideas about new ideas that I know of.

CONSTRAINTS ARE GOOD FOR INNOVATION

Most innovations aren’t necessarily the product of companies throwing large amounts of money at a problem – quite the opposite. New ideas have historically arisen when individuals were confronted with a problem they couldn’t buy their way out of, and so had to experiment within constraints. Constraints force us to discard preconceptions about processes and products. They require companies to rediscover their essential goals and improvise new, streamlined ways to achieve them. Be skeptical of the prevailing stereotype that innovation is about blue-skies thinking with lots of resources at your disposal. Creativity, ingenuity, and finding quick fixes and workarounds are all compatible with innovative thinking. By implication, so are organisational attributes such as performance targets, accountability and cost discipline.

MOST NEW IDEAS ARE RE-COMBINATIONS OF OLD IDEAS.

Case in point: the iPod, undoubtedly an iconic innovation in recent memory. It left the global music industry forever changed, yet from a technological standpoint, it offered absolutely nothing new when it emerged in 2001. Already existing mp3 players contained all its functionality and more. New ways of combining old ideas are at the heart of innovation. Hence the continued importance of innovation hubs, from the coffee shop where intellectuals gathered in 18th century London to Silicon Valley, where spontaneous interactions among imaginative people have produced miraculous results. That’s also why I stand with Yahoo! CEO Marissa Mayer in opposition to the idea that employees can be as creative in isolation at home as they would be working with colleagues in the same physical space. There is an important connection between creativity and proximity. Design the organisation in a way that allows ideas to interbreed.

MOST NEW IDEAS ARE BAD IDEAS

Organisation theorist Jim March taught us about the exploration-exploitation trade-off: If we keep re-using what works, we will never discover anything better; but the search for something better may well turn up duds. The implication: it’s not crazy to throw some money at crazy ideas. Example: In 2001, McDonald’s in Switzerland opened a pair of four-star branded hotels that lasted just two and a half years. While on the surface a baffling move, the hotel project was in fact a direct response to a call from HQ for experiments and ideas to help expand the brand. The fast food giant was aware even then that diversification was needed to offset the long-term threat that increasing global health-consciousness posed



The hotel project was in fact a direct response to a call from HQ for experiments and ideas to help expand the brand.



to their burgers-and-fries business model. The “Golden Arch” hotels certainly lost money, but the loss was no doubt deemed acceptable, incurred as it was while the company was flush with cash, and sacrificed as it was at the altar of the prospect of innovation. If you want to innovate, learn first to tolerate failure.

NEW IDEAS ARE NECESSARY, BUT NOT SUFFICIENT FOR INNOVATION

Producing a good new idea doesn’t mean it will make you money. The classic illustration of this principle is the story of Xerox PARC, an R&D division that in 1973 produced the Xerox Alto, the world’s first personal computer and a major influence on all the commercial PCs that would follow. It was also responsible for the first prototypes of the laser printer, graphical user interface (GUI) mouse, and other technologies that were to become staples of home computing. Yet, in the end, Xerox failed to capitalise on its legendary innovation capacity, and PARC could only sit back and watch as Steve Jobs and others reaped extremely lucrative inspiration from its inventions. Myriad theories have sprung up to explain the failure of Xerox to capitalise on PARC’s new ideas. I don’t have the space to go into them here – but the case suffices to illustrate why having new ideas is not the same as being able to monetise them.



ORGANISING FOR GENERATING NEW IDEAS IS NOT THE SAME AS ORGANISING TO USE NEW IDEAS EFFECTIVELY.

The McDonald’s example above demonstrates that generating good new ideas requires a certain amount of tolerance for failure, but clearly this can’t be the standard for parts of the organisation that must specialise in implementing good ideas. Manufacturing processes, by necessity, are considered successful only if they are able to provide flawless replicability and reliability, something that would be considered an insane expectation in an R&D department. Organisations must take these differences into account either by making room for both kinds of contexts in different parts of the organisation, or by abandoning the dichotomy altogether in favour of specialisation. The pharma industry has seen a sharp division of labor between risky idea generation by biotech firms and commercialisation by big pharma. ↗

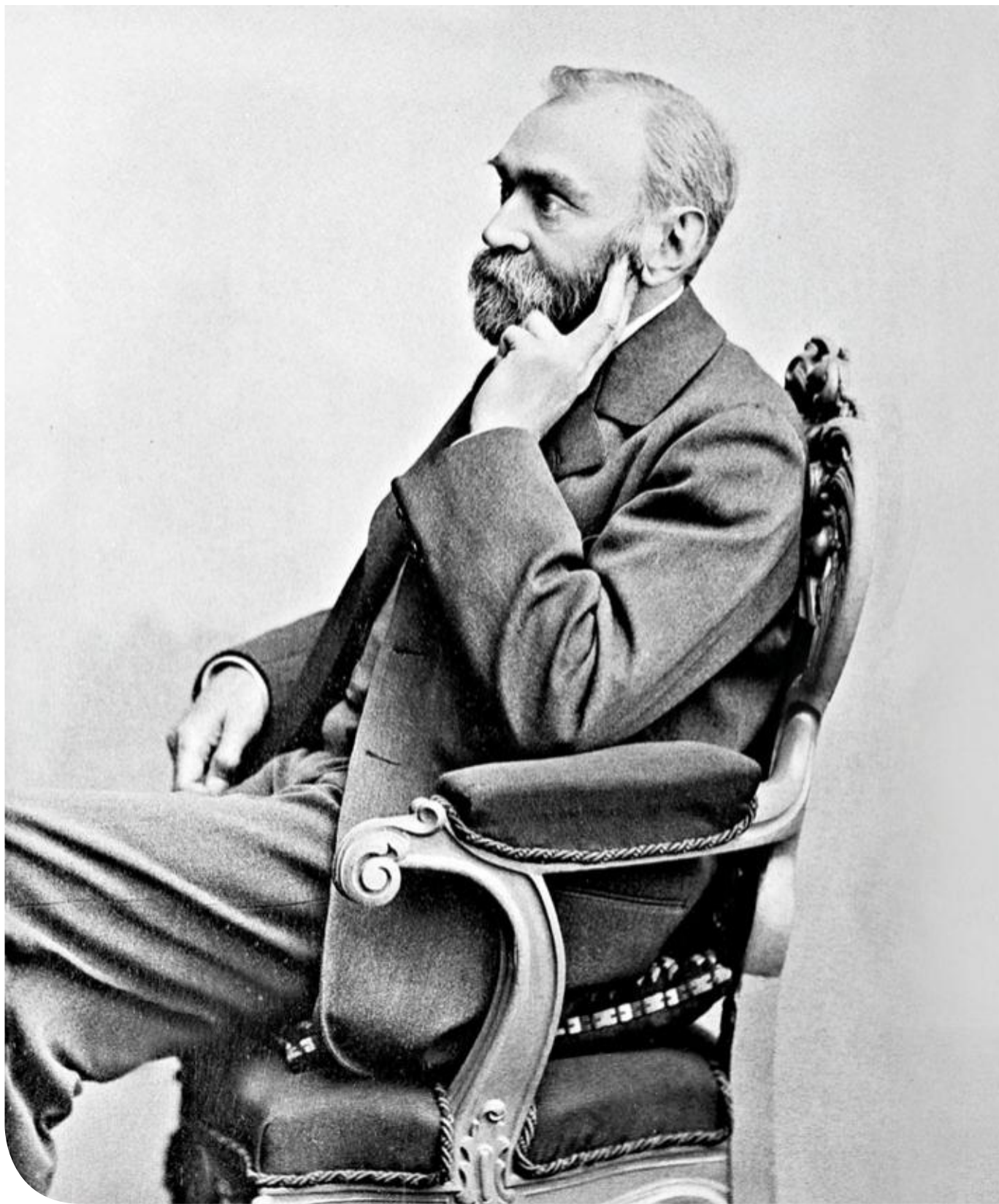
Xerox failed to capitalise on its legendary innovation capacity, and PARC could only sit back and watch as Steve Jobs reaped extremely lucrative inspiration from its inventions.

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He has published his research in internationally reputed academic journals, and has served in senior editorial roles in such journals. His research has won international awards and competitive grants awarded across the social and natural sciences. He is currently working on a book, *Organizing Collaboration: the micro-structural approach to organization design* to be published by Oxford University Press. His book on the prospects for India to emerge as a global hub for innovation, *‘India Inside’* (co-authored with Nirmalya Kumar) was published by *Harvard Business Review Press* in 2012.



UNDER THE AEGIS OF THE MOHAMMED BIN RASHID AL MAKTOUM FOUNDATION, THE NOBEL MUSEUM'S PRESTIGIOUS TRAVELLING EXHIBITION, THE NOBEL PRIZE: IDEAS CHANGING THE WORLD, MADE ITS ARAB WORLD DEBUT IN DUBAI. LET'S TAKE A LOOK AT HOW THE NOBEL PRIZE CAME TO BE ESTABLISHED AND THE INTERESTING HISTORY BEHIND THE WORLD'S MOST COVETED AWARD.

S

ince 1901, the Nobel Prize has been honouring men and women from around the globe for outstanding achievements in physics, chemistry, literature and for work in peace. The foundation of the Nobel Prize was laid in 1895 when Alfred Nobel wrote his last will, leaving much of his wealth to the establishment of the prize. But who was Alfred Nobel and why did he want to create the Nobel Prize?

A pacifist at heart, Alfred Nobel was a scientist, inventor and author. Born in Sweden in 1833, he was nine years old when his family moved to Russia. The Nobel's lived there for 26 years and moved back to Sweden in 1859. In 1867, Alfred Nobel created dynamite. Although he recognised the destructive power of dynamite, Alfred believed it was a harbinger of peace. He told Bertha von Suttner, an advocate for world peace, "My factories may make an end of war sooner than your congresses. The day when two army corps can annihilate each other in one second, all civilised nations, it is to be hoped, will recoil from war and discharge their troops."

But the invention that he thought would end all wars was seen by many others as an extremely deadly product. In 1888, when

Alfred's brother Ludvig died, a French newspaper mistakenly ran an obituary for Alfred which called him the 'merchant of death.'

Not wanting to go down in history with such a horrible epitaph, Nobel created a will that shocked his relatives and established the now famous Nobel Prizes. After his death on December 10, 1896, his will was opened and it caused great controversy both in Sweden and internationally.

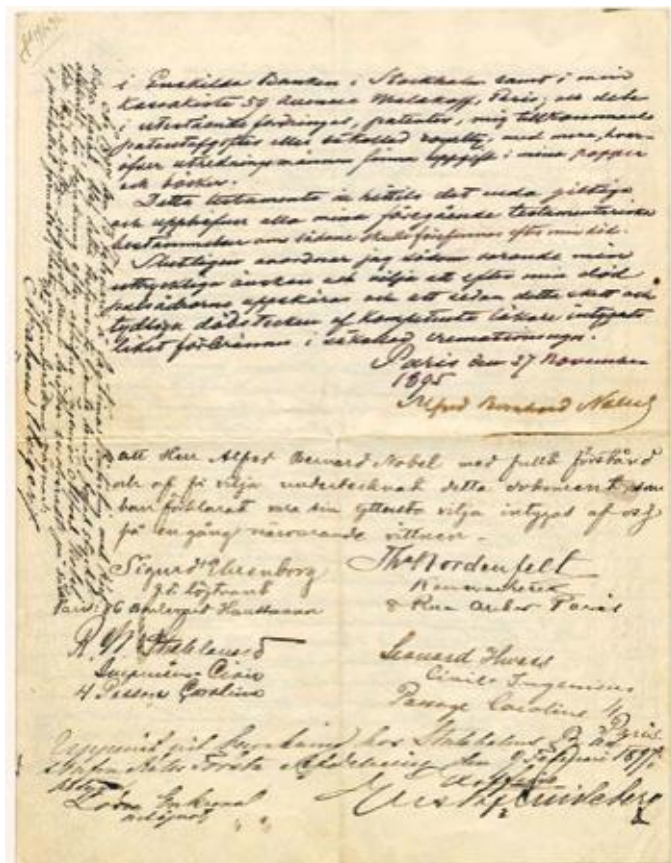
ALFRED NOBEL'S WILL ANISIN

Nobel's last will left approximately 94 per cent of his worth to the establishment of five prizes (physics, chemistry, physiology or medicine, literature, and peace) to 'those who, during the preceding year, shall have conferred the greatest benefit on mankind.'

In his will, Nobel stated that the prizes for physics and chemistry were to be awarded by the Swedish Academy for Sciences; for physiology and medical works by the Karolinska Institute in Stockholm; for literature by the Academy in Stockholm and the champions of peace were to be selected by a committee of five persons elected by the Norwegian parliament. Nobel instructed that in awarding the prizes, no consideration be given to the nationality of



Right: In 1867, Alfred Nobel created dynamite



Above: The foundation of the Nobel Prize was laid in 1895 when Alfred Nobel wrote his last will, leaving much of his wealth to the establishment of the prize

the candidate but only his or her worthiness be considered.

Alfred Nobel stipulated in his will that nearly 31 million Swedish kronor (approximately SEK 1.7 million today) should be converted into a fund and invested in safe securities to fund the prizes.

His family opposed the establishment of the Nobel Prize and the prize-awarders he named refused to do what he had requested in his will. Nobel's will suffered from legal and other defects as well: the 'fund' that was to implement the prizes did not yet exist and would have to be created. Additionally, the organisations that Nobel named in his will to award the prizes had not been asked to take on these duties prior to Nobel's death. Also, there was no plan to compensate these

THE FIRST NOBEL PRIZES

On the fifth anniversary of Alfred Nobel's death, December 10, 1901, the first set of Nobel Prizes were awarded.



CHEMISTRY

Jacobus H. van't Hoff



PHYSICS

Wilhelm C. Röntgen



PHYSIOLOGY OR MEDICINE

Emil A. von Behring



LITERATURE

Rene F. A. Sully Prudhomme



PEACE

Jean H. Dunant



PEACE

Frédéric Passy

organisations for their work on the prizes. The will did not state what should be done if no prize winners for a year were found.

Because of the incompleteness and other obstacles presented by Alfred's will, it took five years of hurdles before the Nobel Foundation could be established and the first prizes awarded.

The Nobel Prize for Economic Sciences was instituted only in 1968 by Sveriges Riksbank

(Sweden's Central Bank) in memory of Alfred Nobel.

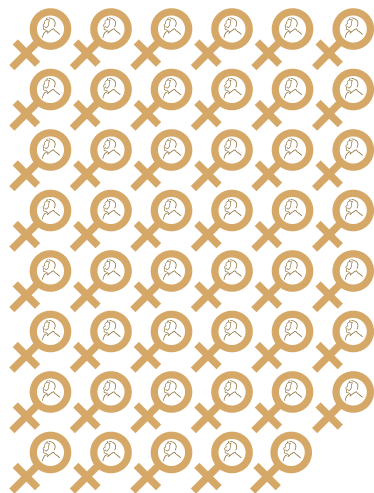
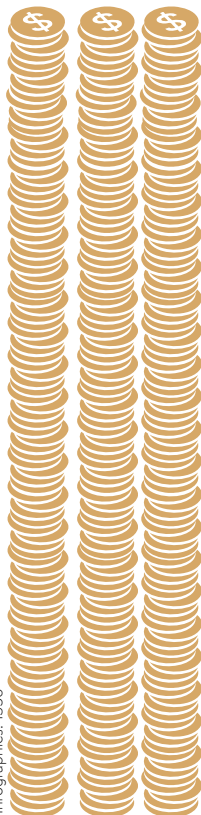
Between 1901 and 2014, the Nobel Prize has been awarded 567 times. There have been 889 Nobel Laureates to date which include 25 organisations. A small number of individuals and organisations have been honoured more than once which means that 860 individuals and 22 unique organisations have received the Nobel Prize in total. [↑](#)

NOBEL PRIZE FACTS

**THE
NOBEL
PRIZE**
AMOUNT FOR
2014 IS SET AT
**\$1.2
MILLION**



SINCE 1901, THE NOBEL PRIZE HAS NOT BEEN AWARDED 49 TIMES. THESE WERE MOSTLY DURING THE TWO WORLD WARS.



SINCE ITS INCEPTION THE NOBEL PRIZE HAS BEEN AWARDED 47 TIMES TO WOMEN.

WINNERS FROM THIS REGION



LITERATURE:
1988: Naguib Mahfouz



CHEMISTRY:
1999: Ahmed Zewail



CHEMISTRY:
1990: Elias James "E.J." Corey (Khoury in Lebanon)



PHYSIOLOGY/MEDICINE:
1960: Sir Peter Brian Medawar (Lebanese origin father)

THE CENTRE STAGE OF ALL ARTS



DUBAI OPERA



Under the guidance of
His Highness Sheikh Mohammed bin Rashid Al Maktoum
UAE Vice President, Prime Minister and Ruler of Dubai

Under the patronage of
His Highness Sheikh Ahmed bin Mohammed bin Rashid Al Maktoum
Chairman of the Foundation

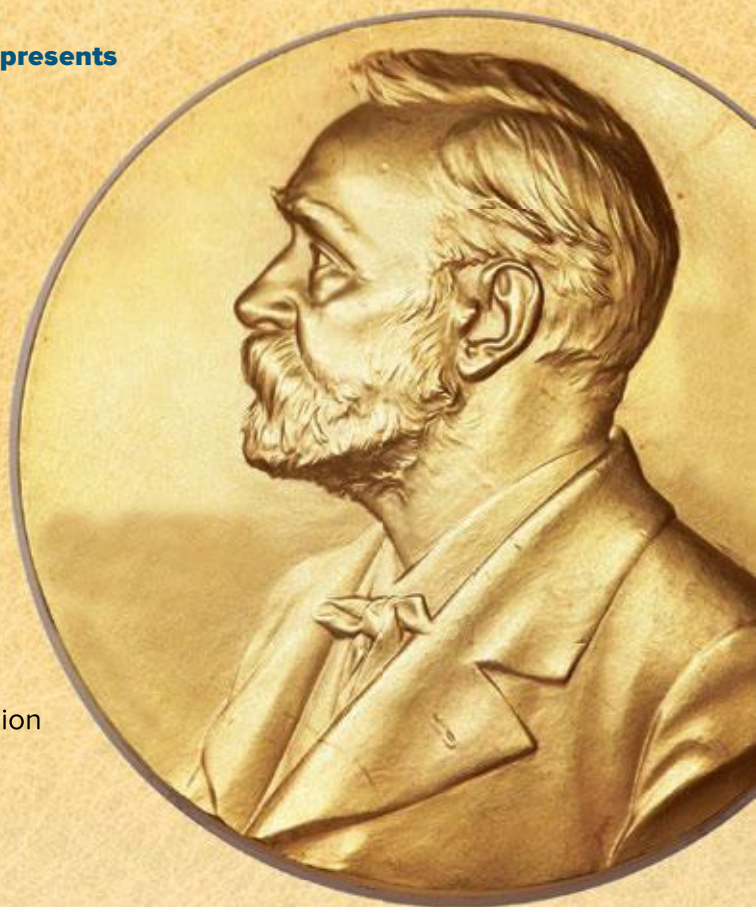
Mohammed bin Rashid Al Maktoum Foundation presents

Nobel Museum: IDEAS CHANGING THE WORLD

Nobel Museum showcases the best of the prestigious Nobel Prize, featuring outstanding exhibits from the past. We are proud that Dubai is the first city in the region to host the Nobel Museum with the new theme.

Museum Timings:
Saturday to Thursday 9am - 7pm
30 March - 30 April, 2015
Annex, Burj Khalifa

#ideaschangingtheworld



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