

FLASHES

JUNE 2015

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



A Whiff of History

The history of perfume is as old as the existence of humanity itself

DUBAI PLAN 2021

Focus on providing high-quality healthcare

DUBAI DIGITAL LIBRARY

A sophisticated electronic reading platform

INNOVATION

Creating diversity can unlock greater innovations

A close-up portrait of a man with a light beard and mustache, wearing a white thobe and a white ghutra with a black agal. He is smiling and looking slightly to the right. The background is blurred, showing what appears to be an office setting.

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FOREWORD

As a nation, we continue to inspire the dreams of millions of youth around the region according to the latest 7th annual Arab Youth Survey by ASDA'A Burson-Marsteller. The UAE came in as the top country that most Arab youth would like to live in. Plus they see the UAE as a model country that they would like their countries to emulate.

While the source of our success is rooted in economic and political stability, there are many other factors that make the UAE much sought after. Our infrastructure, the quality of life, plus the safety and hospitality extended to all residents and citizens make the UAE a country par excellence. Research also shows that there are important links between the health of a nation's

population and its economic progress. As such, the UAE Vision 2021 National Agenda aims to achieve a world-class healthcare system. Dubai is implementing a host of initiatives to ensure that our people are healthy and happy.

Nurturing the mind is just as important as nourishing the body. Recognising that books play an important role, the Mohammed Bin Rashid Al Maktoum Foundation is making reading more appealing to the Arab youth through its efforts such as the Dubai Digital Library. We are excited about this new and innovative platform and look forward to its launch at the end of this year.

HE Jamal Bin Huwairb

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



READING FOR SUCCESS

MBRF launches another set of initiatives aimed at enhancing the nation's knowledge base.



Giving wings to aspirations

Ambitious and talented Emirati youth thronged the Mohammed Bin Rashid Al Maktoum Foundation's (MBRF) stand at the Careers UAE 2015 exhibition seeking opportunities to contribute to the Foundation's projects. MBRF is widely recognised as a leader in the dissemination of knowledge in the region. Through its participation in the three-day event, the Foundation aims to contribute to the achievement of the UAE Vision 2021 which seeks to raise the level of national cadres in the UAE workforce. Furthermore, the move is in line with MBRF's objective to attract Emirati talent in various fields and contribute to the creation of more job opportunities for UAE nationals.

Involvement in Careers UAE is also a part of the Foundation's commitment to actively and effectively engage in projects and initiatives that contribute to the building of a strong knowledge-based Emirati society. The exhibition serves as the ideal platform for a variety of government institutions to meet competent young UAE nationals and inform them about latest employment and training opportunities available.

His Excellency Jamal bin Huwaireb, Managing Director of MBRF, pointed out that during the current year the rate of Emiratisation in MBRF reached 59 per cent in all departments and positions. However, MBRF requires more young talents in view of the Foundation's expansion through a number of projects and programmes launched year after year in different areas, he added. [↑](#)



Forging new ties

Participating in the prestigious London book Fair 2015 proved hugely beneficial for Qindeel Printing and Publishing Services, one of the investment projects of Mohammed bin Rashid Al Maktoum Foundation (MBRF), as it held cooperation meetings with cultural agencies and publishing houses specialising in areas such as science, innovation, self-development and children's literature.

Apart from meeting a number of Arab and international publishing houses in areas such as science, innovation, self-development and children's literature, Qindeel also met companies specialising in electronic publishing and smart solutions at the fair.

The fair, held in the British capital, offered Qindeel the opportunity to highlight its efforts in the field of publishing and the leading role of MBRF in the dissemination of knowledge and its contribution to development projects all over the world.

Among the key highlights of Qindeel's participation in the fair was the visit of His Highness Sheikh Dr Sultan bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah, at the Qindeel



pavilion. On the occasion, His Highness Sheikh Sultan was received by His Excellency Jamal bin Huwaireb, Managing Director of MBRF, who briefed His Highness about the most important projects being undertaken by the Foundation.

Commenting on Qindeel's participation in the book fair, HE Huwaireb said the event provided an opportunity to build new partnerships and communicate better with Arab publishers. It was also a platform to review future Qindeel projects and learn from others' experiences. Qindeel is now looking forward to participating in more international events to promote its cultural

Top: London Book Fair 2015.

Above: His Highness Sheikh Dr. Sultan bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah, talking to HE Mr. Jamal Bin Huwaireb during his visit to MBRF pavilion in London Book Fair

and intellectual projects.

2015 marks the 44th edition of the London Book Fair, which is the second largest book fair in the world. More than 1,500 pavilions from more than 110 countries attracted more than 13,000 visitors. Apart from the UAE, the exhibition saw huge participation from a number of Arab countries such as Egypt, Oman, Iraq and Lebanon. [▶](#)

Spotlight on science

Science books for children are next on the agenda for the Mohammed Bin Rashid Al Maktoum Foundation (MBRF). The Foundation signed a partnership with Tunisian publishing house Al Mutawasetiy under who it will publish a series of science books for children and youth. The agreement was signed during the Foundation's participation in the Abu Dhabi International Book Fair held in May.

MBRF will publish a series of books in Arabic and English for young people between 12 to 17 years dealing with topics such as medical imaging, laser, viruses, nuclear energy and space science. The books will be published in both print and digital formats, with the latter made available through applications on smart devices.

"The agreement has been made taking into consideration the lack of specialised books for this age group and aims to spread scientific culture among young people. The digital versions of these books will come with attractive features such as 3D and animation in order to attract more young readers. The applications will be available in both Arabic and English in App Store as well as Android Apps," said His Excellency Jamal bin Huwaireb, Managing Director of MBRF. The Foundation also took part in several business meetings and specialised events in the areas of publishing and knowledge at the Abu Dhabi Book Fair. It held meetings with publishing houses in the fields of science, innovation and educational books for children.

The Foundation's participation highlights the role it aims to play in the areas of publishing and transfer of knowledge. It also enabled MBRF to renew direct communication with a wide range of local, Arab and international publishing houses and share



best practices in the areas of publishing and translation. Furthermore, the exhibition set the stage for MBRF's future partnerships with a number of publishing houses specialising in the field of innovation as it looks to keep pace with the latest technological developments to provide a rich knowledge content to the public. †



PUBLIC ENGAGEMENT

Apart from entering business partnerships, MBRF engaged with visitors at the book fair through competitions and seminars. "Think With Me", a daily competition launched by MBRF on its social media channels, saw wide participation from the public with a winner selected daily. The Foundation also hosted a group of school students at its pavilion, introducing them to a variety of interesting children's books. Visitors also got the chance to attend a symposium focusing on the experiences of the UAE authors associated with Dubai International Program for Writing.

Dr Eesa M. Bastaki, President of University of Dubai, and Dr Mariam Al Shenasi, President of the Emirates Publishers Association and owner of Jasmine Publishing House, hosted a seminar titled "Translation and its Role in Creativity and Innovation" drawing in a large crowd of visitors and exhibition participants.



Dubai Digital Library to debut soon

An extensive collection of Arabic books, including translations, as well as Arabic and foreign periodicals, dictionaries, biographies and maps, will soon be available online as part of the Mohammed Bin Rashid Al Maktoum Foundation's (MBRF) Dubai Digital Library (Dubai DL) initiative. The innovative step is 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. The initiative aims to provide a sophisticated electronic reading platform and its first phase will be launched in the last quarter of this year.

The Foundation is keen to create innovative projects that offer advanced

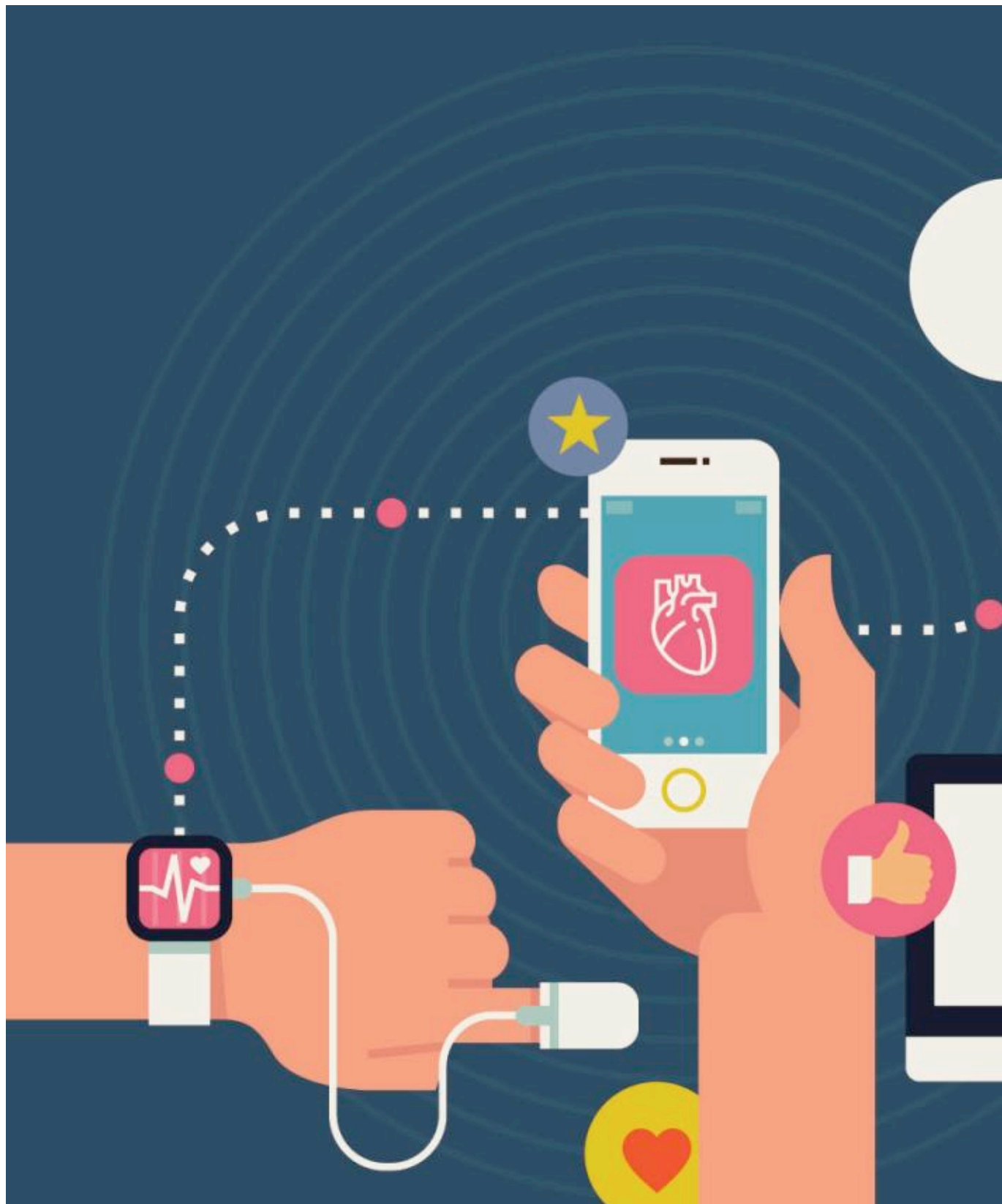
platforms in the transfer of knowledge and Arab culture. As such, Dubai DL has been launched with the aim to keep pace with the rapid changes taking place in the field of publishing, driven by the growth of technology and the wide-spread use of internet and smart devices for reading and research work around the world.

The first phase of Dubai Digital Library will include more than 1,600 books covering a range of subjects including language, medicine, pharmacy, geography, history, religion, and sociology. The Library will provide access to a massive number of authentic knowledge resources. Its various search options and tools will be programmed to offer quick and extensive results. Visitors will be able to benefit from several other services, including advanced search options,

either by topic name, author or date. They will also be able to add comments or take part in discussions on various topics.

Additionally, the Library will have a customised section for newspapers and magazines published in Arabic language. Another section will offer access to ancient and modern dictionaries, enabling readers to gain insights on the development of language and modern literature. It will also contain a large number of biographies of personalities who have influenced Arab civilisation and development.

Individuals with special needs will have a dedicated section where audio recording of some works will be provided. Furthermore, a multi-media exhibition will offer photographs, videos and sound recordings, enriching the content of the Library. [↑](#)





FOCUS ON HEALTH

Providing high-quality healthcare services for each socio-economic segment of society is one of the goals of Dubai Plan 2021.



Last month His Highness Sheikh Mohammed bin Rashid Al Maktoum, UAE Vice President, Prime Minister and Ruler of Dubai, affirmed that providing healthcare services at par with international standards as well as continuous improvement in this sector is the government's highest priority. His comments came while chairing a session of the UAE Cabinet.

"Building a high-quality healthcare system and providing the best services to patients requires streamlining efforts in this sector. Today, we announce a unified national medical record database to facilitate information exchange among healthcare providers. We want healthcare services to reach patients no matter where they are in the country, to realise high quality standards of living to our people and ensure their health requirements are met," His Highness said.

Providing high-quality healthcare services for each socio-economic segment of society is also one of the goals of the Dubai Plan 2021 launched last year. The Plan outlines six main themes of development for Dubai and health services is one of the sub-themes. Over the past few years, the Government of Dubai has undertaken a variety of measures to ensure that its vision of excellent healthcare facilities for every resident and citizen is met.

CALL TO UPGRADE HEALTHCARE

The development of the healthcare sector was a key topic of discussion at the Government

Innovation Lab organised by the Ministry of Health last year. His Highness Sheikh Mohammed urged stakeholders in the public and private healthcare sector to construct a quality healthcare system and provide the best services to people aiming to improve quality of life and welfare of citizens. His Highness instructed that practical measures should be applied to implement a regular national medical checkup programme for all citizens. The Ruler of Dubai further called on all the local and federal healthcare facilities to unite their efforts to provide best medical treatment, thereby enhancing the standard of services in the UAE.

It was also at this session that Sheikh Mohammed issued directives to launch a mobile healthcare services programme focusing on homecare services and outpatient specialty clinics. The initiative is specially aimed at providing services in remote areas, especially for senior citizens.

TRAINING PROGRAMMES

At the same forum the Ruler of Dubai approved the establishment of a specialised medical training centre to provide continued training programmes for medical cadres and educate them on the latest developments in the medical field.

Furthermore, a number of initiatives aiming to improve healthcare services were announced including the launch of a programme to evaluate hospitals and medical practices; establishment of a specialised professional body for the public healthcare sector; introduction of unified accreditation procedures for medical doctors

DUBAI PLAN 2021 JOURNEY

Source: www.dubaipplan2021.ae

INTERACTIONS

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AND THE GOVERNMENT

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EMPLOYEES

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EXPERTS

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WORKSHOPS

and healthcare workers nationwide; launch of a cancer screening programme to diagnose and treat cancer in its early stages; and launch of the UAE Board as regional reference for all medical specialisations amongst others.

UNIFIED MEDICAL DATABASE

The latest in the slew of initiatives is the establishment of a national unified database of patients' medical records in the UAE, which was announced last month. The project aims to unify all medical records of patients in the UAE, facilitate movements of patients among healthcare providers, as well as connect public hospitals and clinics.

Providing up-to-date and correct medical records is vital to improving healthcare services and both healthcare professionals and patients believe this step will ensure an improved level of care and eliminate duplication while reducing registration times, medication errors and the length of hospital stays. This initiative is expected to be implemented in the next four years.

LICENSING FRAMEWORK EXPANDED

Earlier this year, medical expertise in Dubai received a boost when Dubai Healthcare City (DHCC), the world's largest healthcare free zone, expanded its licensing framework to include 34 new countries from MENA, Eastern Europe, Indian Subcontinent and South East Asia. The expansion was announced in response to a lack of specialists in various fields in Dubai. The framework now covers 63 countries, so even more health professionals will be able to work in Dubai.

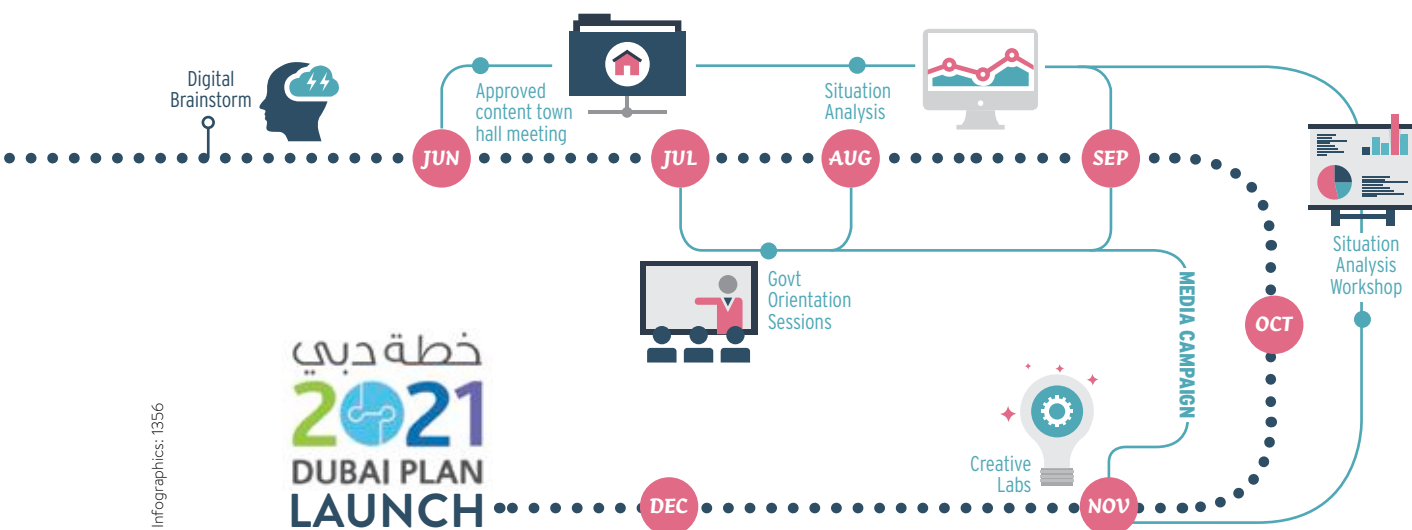


"When we first established the regulatory framework, we started with the countries and/or boards that were the most developed, backed by accreditation and a strong regulatory framework. We have since been aware of the need to review and update. We recognise that healthcare professionals from the list of new countries offer quality skills and expertise in accordance with DHCC's stringent set of medical standards," said Dr. Ramadan Al Blooshi, Managing Director, DHCC – Regulatory.

Dubai Healthcare City (DHCC), the world's largest healthcare free zone, expanded its licensing framework to include 34 new countries from MENA, Eastern Europe, Indian Subcontinent and South East Asia.

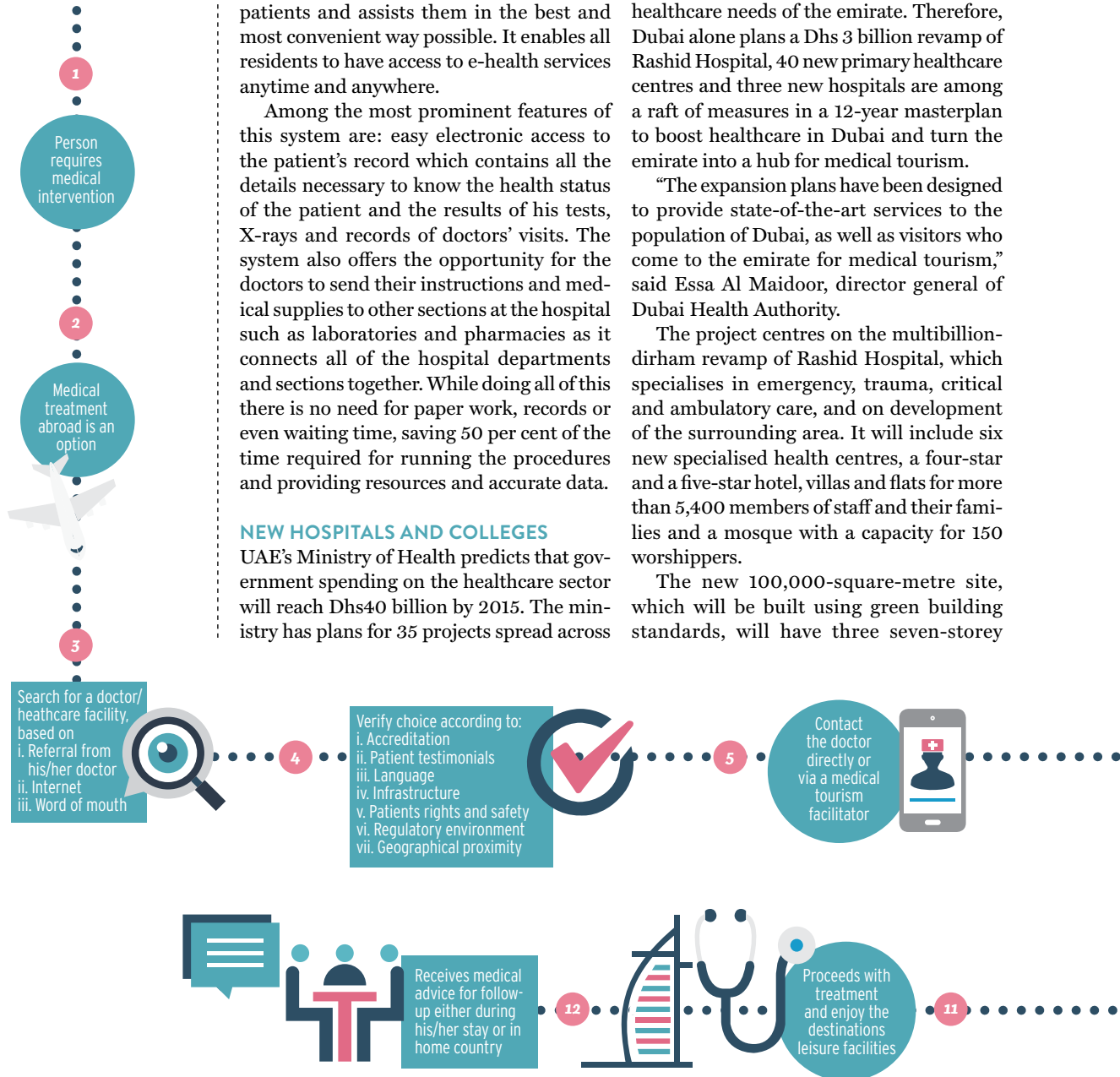
THE SMART WAY FORWARD

Back in 2013, the Dubai Health Authority (DHA) launched its Smart Healthcare Initiative in all its



JOURNEY OF A MEDICAL TOURIST

Information Courtesy:
Dubai Healthcare
City, 2014



primary healthcare centres and hospitals in Dubai. The initiative aims to support the cooperation between the public and private sectors in order to provide the best e-services and smart services for healthcare professionals, doctors, nurses, staff, officials and administrators in the healthcare sector. Moreover, the smart application provides the ultimate support and services for patients and assists them in the best and most convenient way possible. It enables all residents to have access to e-health services anytime and anywhere.

Among the most prominent features of this system are: easy electronic access to the patient's record which contains all the details necessary to know the health status of the patient and the results of his tests, X-rays and records of doctors' visits. The system also offers the opportunity for the doctors to send their instructions and medical supplies to other sections at the hospital such as laboratories and pharmacies as it connects all of the hospital departments and sections together. While doing all of this there is no need for paper work, records or even waiting time, saving 50 per cent of the time required for running the procedures and providing resources and accurate data.

NEW HOSPITALS AND COLLEGES

UAE's Ministry of Health predicts that government spending on the healthcare sector will reach Dhs40 billion by 2015. The ministry has plans for 35 projects spread across

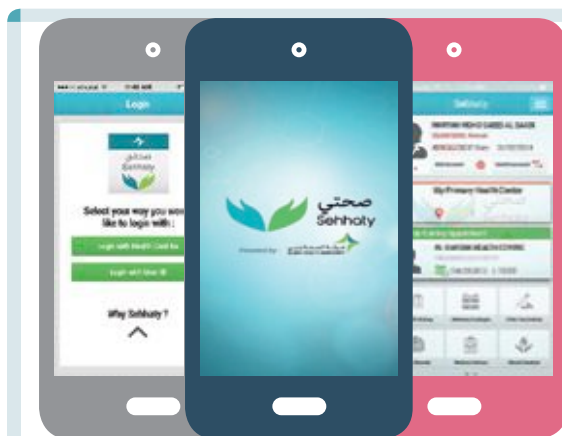
the Northern Emirates. The projects include specialised and general hospitals, primary healthcare centres, dental care centres, central labs, blood banks and projects to develop the infrastructure at various healthcare facilities.

At least 8,000 new beds and thousands of new medical staff will be needed in Dubai over the next 10 years to meet the growing healthcare needs of the emirate. Therefore, Dubai alone plans a Dhs 3 billion revamp of Rashid Hospital, 40 new primary healthcare centres and three new hospitals are among a raft of measures in a 12-year masterplan to boost healthcare in Dubai and turn the emirate into a hub for medical tourism.

"The expansion plans have been designed to provide state-of-the-art services to the population of Dubai, as well as visitors who come to the emirate for medical tourism," said Essa Al Maidoor, director general of Dubai Health Authority.

The project centres on the multibillion-dirham revamp of Rashid Hospital, which specialises in emergency, trauma, critical and ambulatory care, and on development of the surrounding area. It will include six new specialised health centres, a four-star and a five-star hotel, villas and flats for more than 5,400 members of staff and their families and a mosque with a capacity for 150 worshippers.

The new 100,000-square-metre site, which will be built using green building standards, will have three seven-storey



GET THE HEALTH APPS

All your health information is now at your fingertips thanks to Dubai Health Authority's smart apps. The Dubai Doctors and *Sehhaty* apps offer 93 smart services including the ability to view lab results and appointments, register as a blood donor and access information about active blood donation drives, track vaccination plans for children and view medical evaluation records and related prescriptions and X-rays etc. Patients will be able to cancel or reschedule an appointment, renew health cards or request a duplicate, and even apply for medical reports.

Both apps are available on all major mobile platforms such as IOS, Android, Windows Phone and Blackberry in Arabic and English.

towers. Each will have 300 beds, giving a total capacity of 900, and will include six VIP rooms and seven royal suites. Additionally, there will be new centres for heart, cancer and kidney patients, among others, and a dedicated Dhs38 million outpatient building to reduce the pressure on hospitals.

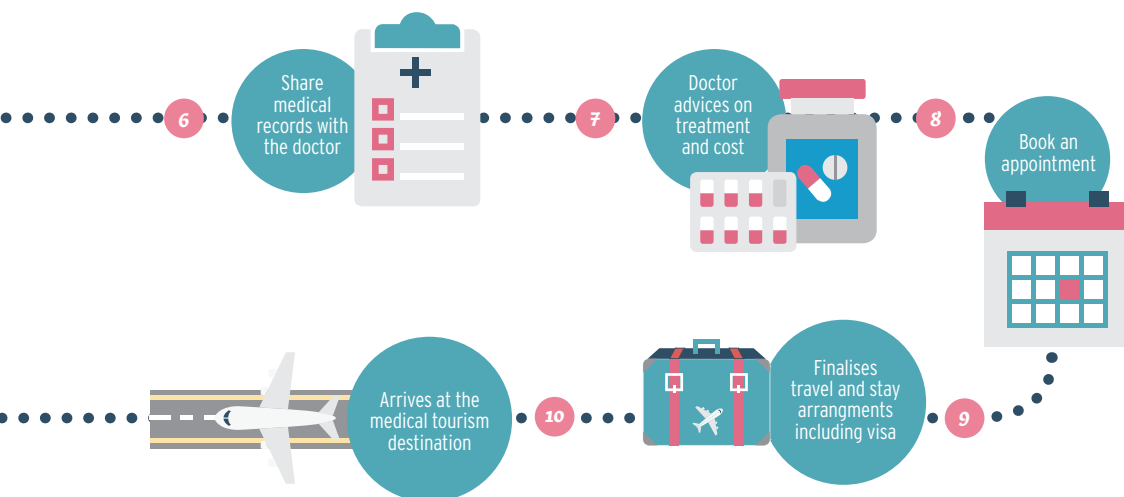
The masterplan also envisages three new hospitals: Sheikh Mohammad bin Rashid Hospital on Sheikh Mohammed bin Zayed Road, Al Maktoum Hospital in Jebel Ali's Al Maktoum Airport area, and Al Khawaneej Hospital. The strategy behind the new project is to have all hospitals within a 12-kilometre radius of all catchment areas and all healthcare centres within a five-kilometre radius.

Dubai Health Authority (DHA) also plans to nurture homegrown talent by focusing on increasing the number of medical colleges and

local nursing institutes. Job vacancies for at least 7,323 doctors and 8,510 more nurses will open up until 2025 as the emirate expands. An additional 4,500 general practitioners and 550 anesthetists will also be required.

At least three medical colleges, five nursing schools and a robust residency programme are being planned to meet these needs. These are required in addition to the Mohammed bin Rashid University for Medicine and Health Sciences, which will begin to receive the first batch of medical students in September 2015.

Dubai is also aspiring to be a medical tourism hub and aims to attract about 500,000 visitors by 2020 to avail of its medical facilities. Its ambitious expansion plans coupled with the other initiatives are sure to seal Dubai's position as a medical and wellness hub, not only for its residents and citizens but for tourists as well. ↗



IN CONVERSATION



A WHIFF OF THE GCC'S FRAGRANCE INDUSTRY

Flashes speaks to Abdulla Ajmal, general manager at Ajmal International.

How big is the GCC's fragrance industry?

The beauty and perfume market is doing exceptionally well and is growing faster than the industry average globally. As per the numbers, the GCC market for fragrances is estimated at Dhs11 billion (\$2.99 billion) per annum accounting for approximately 20 per cent of the world's market.

How is the market divided between local and international perfume brands?

As a global business hub, the UAE attracts a lot of consumers and brands from around the globe and we can now find almost every single fragrance brand in this market. It has therefore become a very competitive market for local and international brands, but as a local brand we focus on both traditional and Western fragrances that attract a wide range of consumers who are looking for something new, are interested in using oriental fragrances with a twist, and also appreciate high-quality oils.

With growing competition, how can a brand stand out?

A brand can only truly stand out when one puts his heart and soul into the quality presented to the consumer, which will eventually create brand loyalty among consumers. >

➤ **Any specific areas of growth within the industry?**

Absolute product segmentation is required. There is a need to streamline your target audience and try to reach the core of that segment. It is no longer limited to age and demographics; it is about lifestyle as well. I believe in the future it won't be just about targeting a particular segment like youth for example, but it will be about what kind of youth, the ethnic group they belong too, likes and dislikes.

What are the most popular fragrances among consumers in this region?

With an influx of international brands going the Oriental way more aggressively than ever before, the choice out there is enormous. Our loyal customers still prefer the traditional Oudh and Bakhoors, while the younger section is more inclined towards the Floriental sprays, which is a mix between Western and Oriental notes.

How much work/effort goes into creating the perfect fragrance?

Perfume in this part of the world is beyond an accessory and necessity, it is a part of the heritage and tradition of the land and region. A great fragrance is seen as a priceless extension of who you are and the impression a perfume leaves

behind us is powerful and long lasting. From inception to launch, it takes an average of 16 to 18 months and the process commences with a brief. However, it all starts with the marketing department briefing us about what the market requirement is, and this is supported by research done on trends, target consumers and current market scenario. The brief is given simultaneously to two teams: packaging and perfumery. Both the team's work in tandem along with other supportive functions to create a captivating and exquisite fragrance that best suits the brief. At Ajmal, we ensure that there is passion and creativity along with knowledge and expertise that goes into each and every creation of ours. The finished product is a distinctive scent that gives the wearer a mystical allure and reflects the brand's philosophy of Crafting Memories.

How important is packaging to the product?

All Ajmal Perfumes are packaged in bottles ranging from clean-cut crystal, modern shaped bottles and traditional applicators, among others. The name, bottling and packaging are important factors as they gauge customers' attention. Although a classic bottle is treasured, in the end it is the fragrance that matters the most. The fragrance speaks for itself. If it has an appealing scent, people will regard it despite the packaging. Although we pay importance

From inception to launch, it takes an average of 16 to 18 months and the process commences with a brief.



to all aspects in order to deliver a memorable experience, our main focus is the fragrance. We constantly do research on scents and are as innovative as possible. So yes, at the end it's the juice that matters the most even if it came in an ordinary bottle.

Who is the harder to please consumer – men or women?

Both men and woman have their own distinctive choices and preferences when it comes to fragrances. There is no distinguishing between the two when it comes to pleasing either. The main objective here is to concentrate on using the highest quality of products and a lot of passion goes into our creations. These have to be met at any cost and our customers always motivate us to stay on top of our consumers' needs and expectations.

What does it take to become a successful perfumer?

To be successful in any business, one has to consider hard work, dedication and passion. Without these, you cannot be successful in anything you do. There are two sides to perfumery – one scientific and the other artistic. Scientifically, you have to be trained to be a perfumer, for which you should have developed your sense of smell to the level of acute recognition i.e you literally



All Ajmal Perfumes are packaged in bottles ranging from clean-cut crystal, modern shaped bottles and traditional applicators, among others.

have to develop 'a nose' for it. A perfumer needs to know at least 3000 ingredients like the back of his hand. This is developed through strenuous training and learning, it's a process that you need to immerse yourself in order to master it.

However, artistic perfumery is more like taking the art of perfumery as a way of expression like any other form of art. The perfumer may or may not be scientifically guided by nuances of perfumery, but will create a scent inspired by a muse or a season or an ingredient. A trained perfumer, who remains true to its essence, will later finish the product.

The key to both is belief, your belief in your own capabilities and the thirst to reach for the skies, taking risks, albeit with caution while pushing the boundaries of limitations. Knowing what is bang on trend, being in the middle of the storm and gauging the mindset of consumers will put you in the forerunning.

If someone was interested in making a career in the fragrance industry, where should they start?

Start at the bottom and work your way up. Perfumery is an art of perseverance and one really has to master both the patience and art to succeed. Knowledge and understanding of the business is critical. Attain as much training and know-how as possible as it will help you in understanding the business and your personal growth. Always be eager to learn, use your creative side to experiment, and always be ready to grasp the chances you are given to express yourself. ♪



Left: A perfumer needs to know at least 3000 ingredients like the back of his hand.

The World's first Plantable Coffee Cup

California entrepreneur invents coffee cups that can revive forests.

While recycling is a good start towards saving the environment, a product has limits of only three or four cycles of recycling. But what if our used cups or boxes could go beyond merely turning into another cup or box, and become a tree?

The idea is now a reality thanks to a California-based creative company called Reduce.Reuse.Grow, which has pioneered a new type of coffee cup embedded with seeds. When the cup is planted, it grows into a tree.

HOW IT WORKS

You just have to unravel the cup, soak it in water for five minutes and plant it. Since the seeds do not come in direct contact with the hot liquid, there is no problem with their germination. The liner as well as the paper absorbs a lot of the heat allowing the seeds to not be affected.

The cups biodegrade completely in 180 days and each cup can grow one tree, which will absorb nearly one tonne of carbon dioxide from the atmosphere over a 40-year



span. If you don't want to plant the cup, simply dispose of them in special trash cans and the company will replant them in three of California's parks. Your used coffee cup is now actually removing carbon dioxide



The philosophy and kickstart of Reduce. Reuse. Grow. was founded by landscape architecture student Alex Henige after pondering the idea for a couple of years before his senior project thesis.



Americans alone drink 400 million cups of coffee a day, amounting to 140 billion cups annually could create systemic change.

from the air. The cardboard used in these cups is compostable and embedded with native seeds – at the moment, just California seeds, as it is intended for use there. However, the company plans to introduce wildflowers, pines, and desert plants, depending on the location it will be used.

Given that Americans alone drink 400 million cups of coffee a day, amounting to 140 billion cups annually, these cups could create systemic change – that is, if the big coffee brands adopt the new technology. Coffee vendors argue that cost is a big factor. The plantable coffee cup costs one cent more than the conventional option, at \$.02 per piece. Though it is just a penny, for national coffee chains this can mean greater added costs.

The company has managed to raise over \$20,000 in little over a month through a Kickstarter (a fund-raising company) campaign, enabling them to start manufacturing their new design at a commercial level. Their cups will first be made available in coffee shops in Boulder, Colorado and Marin County, California.

The technology, while designed for coffee cups initially, can be applied to togo containers, corrugated boxes, bio plastics, and other paper products, says Reduce.Reuse.Grow. Coffee cups are merely a starting point.

Let's hope they make it across the oceans soon. [↑](#)

HOW IT WORKS



UNRAVEL CUP



SOAK IN
WATER FOR
5 MINUTES



PLANT AND
WATCH GROW!



1 CUP GROWS AT LEAST 1 TREE WHICH WILL
EXTRACT 1 TONNE OF CO₂ OUT OF THE ATMOSPHERE ANNUALLY

WHERE DOES THE MONEY GO WHEN A CUP IS PURCHASED?



MONEY GOES TO
MICROFINANCE
COMPANY



LOANS GET
DISTRIBUTED TO THIRD
WORLD STARTUP
BUSINESSES



LOANS PAID
BACK TO RRG

INCENTIVES FOR COFFEE SHOPS



REFOREST
COMMUNITIES



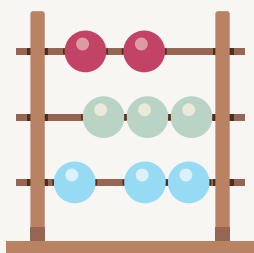
REDUCE
WASTE



MORE
CUSTOMERS

Universal Language App for the Autistic

The mother of an autistic child has developed the world's first app to aid speech impaired individuals.



USERS SELECT DRAWINGS AND PHOTOS OF VARIOUS FIGURES, SITUATIONS, EMOTIONS OR IDEAS, AND COMBINE THEM WITH COLOUR, SOUND, TEXT AND OTHER EVOCATIVE CONTENT TO CONSTRUCT WHAT BECOME EASILY IDENTIFIABLE MESSAGES OR QUESTIONS.

People with autism often have major problems with both speech and nonverbal communication. It can affect speech, language development, and social communication in many ways and as a result speech-language therapists, who specialise in treating language problems and speech disorders, work with the family, school and other professionals.

French businesswoman Marie Spitz gave up her career 15 years ago after she discovered that her daughter Pauline was autistic, which severely limited her speech capacity. Spitz soon realised the cost, required training and exclusive nature of current aids and apps for handicapped people make them difficult to access, and end up isolating the handicapped instead of helping them. She decided that there had to be a simpler solution, and through her dedication the Talk Different app was created after three years of hard work using her insights for medical, educational and tourism communication use.

The app allows the user to select individual images to create “picture phrases” – the equivalent of sentences. With its 700 images, colours, icons and sounds to create messages the app transforms the idea of communication, based on alternative communication techniques she practised to interact with her daughter. The key to Talk Different is the ease and accessibility with which it allows the vocally- or hearing-impaired, other verbally isolated users and even lost travellers, to construct messages on smartphones or pads that anyone will understand.

Talk Different is unique from other language apps thanks to its picture book simplicity, an intentional contrast to the more complex and confounding tools Marie used while communicating with her daughter. Another plus point is that

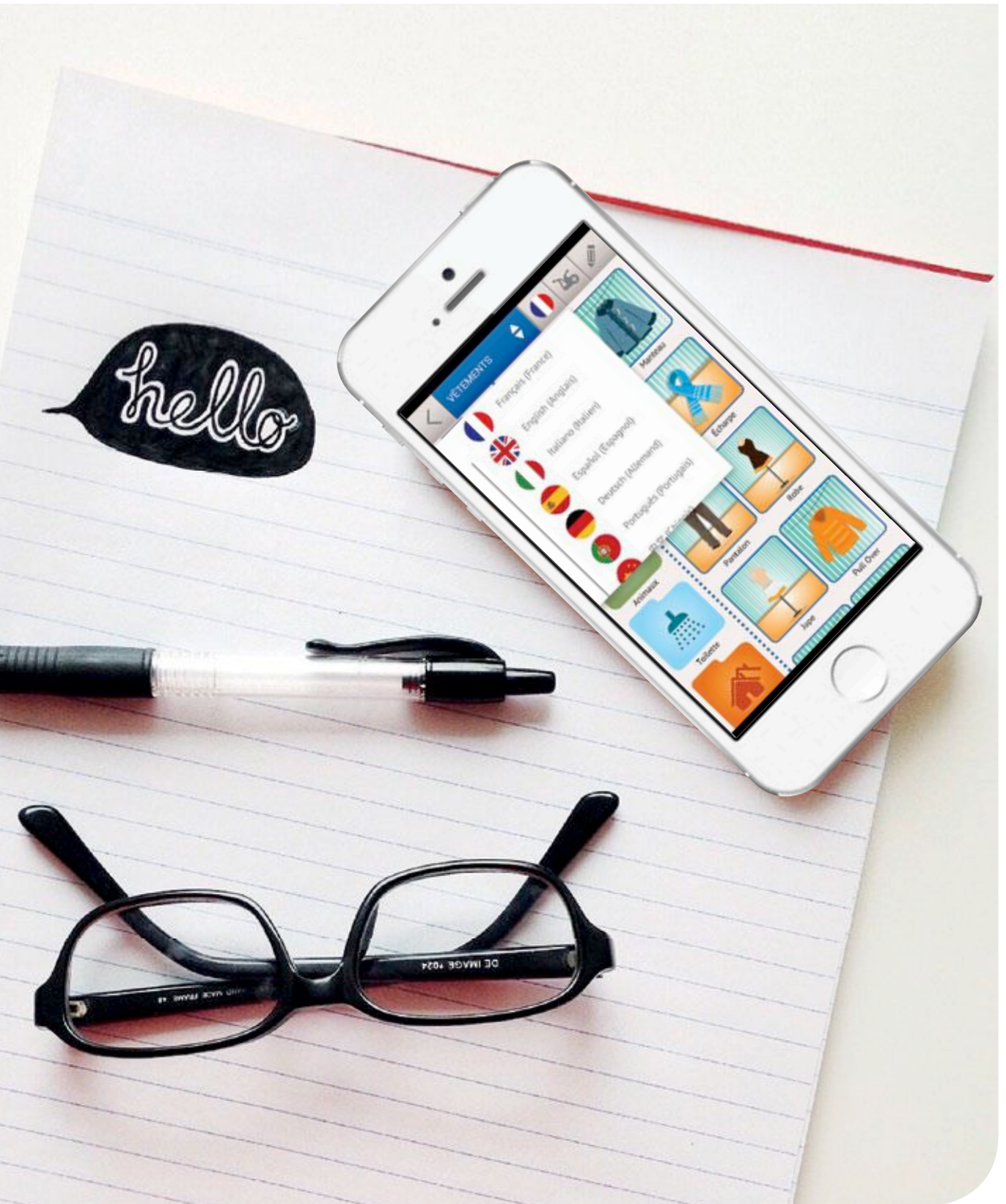
the app requires no special training.

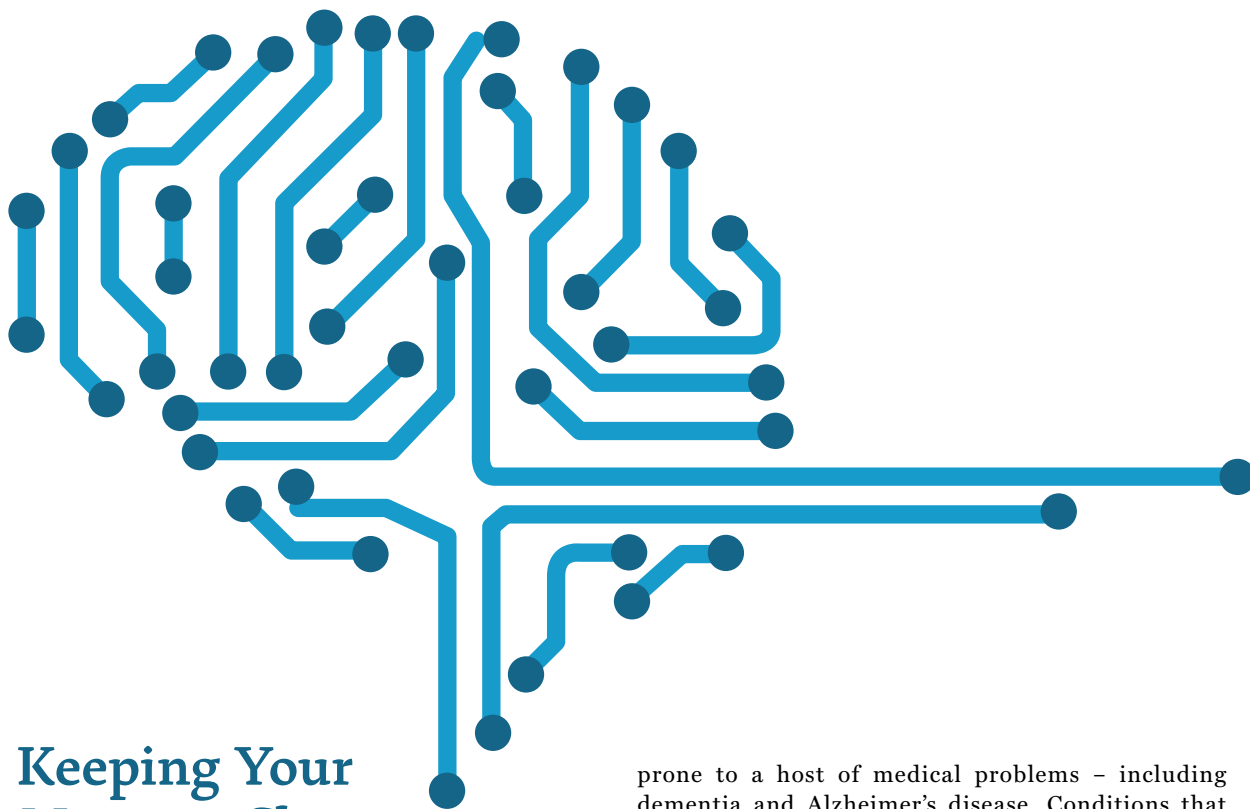
Users select drawings and photos of various figures, situations, emotions or ideas, and combine them with colour, sound, text and other evocative content to construct what become easily identifiable messages or questions. In this case, a picture is really worth a thousand words.

Spitz teamed up with Sogeti, an affiliate of French computing service giant Capgemini, in April this year to bring the \$1.99 app to market. It is available on Google Play and Apple Store in nine international languages and has garnered four- and five star reviews from users. There is also a more expensive ‘pro’ version available with more features.

Spitz is now developing a version of the app specifically for health workers and the handicapped. ↗







Keeping Your Memory Sharp

Living a healthy lifestyle is good for your memory. And by using these seven tips you can keep your memory sharp.

Memory is not something static and unchanging. For example, many people assume that memory loss is an inevitable part of aging. The brain is capable of producing new brain cells at any age, so significant memory loss is not an inevitable result of aging. But just as it is with muscle strength, you have to use it or lose it.

Memory is part of your brain, so naturally anything that improves brain health may also have a positive impact on memory. A survey of more than 18,000 adults, which was published in *International Psychogeriatrics*, showed that self-reported memory problems were inversely related to healthy behaviours. Managing stress; exercising regularly; getting enough sleep; eating a balanced diet and stopping smoking are some of the important lifestyle adjustments you can make to help improve and protect your memory.

Conversely, everything that is bad for your health is bad for your memory. Being obese leaves you more

prone to a host of medical problems – including dementia and Alzheimer’s disease. Conditions that have been linked with heart disease – high blood pressure, high cholesterol, and diabetes have also been linked to memory problems. Several large studies have documented links between diabetes and cognitive decline. For example, a 2010 study in *Diabetes Care* that measured cognitive function in 2,613 middle-age to elderly people found that over a five-year period, people with type 2 diabetes experienced a decline in cognitive function that was 2.6 times greater than people without the disease. Many over-the-counter and prescription drugs also have side effects that can scramble thinking and dim memory and older people tend to be more sensitive to these effects. Hearing loss is another factor – if you have trouble hearing something you’re bound to have trouble remembering it.

However, these factors do not mean that you can’t improve your memory. Here are some tips that will help you focus on what you are doing and help encode information more strongly in your brain.



MEMORY IS PART OF YOUR BRAIN, SO NATURALLY ANYTHING THAT IMPROVES BRAIN HEALTH MAY ALSO HAVE A POSITIVE IMPACT ON MEMORY.

FOCUS: Multi-tasking is such a part of our frenetic modern lifestyles that we fail to do the main thing that will improve memory, namely paying attention to the task at hand. The brain needs time to encode information. If information is not memorised it cannot be recalled.

USE YOUR SENSES: Smell, touch, taste, hearing and vision are powerful forces in forming memories. The more senses that are engaged the stronger the memory. If you have trouble remembering names, for example, it helps to look someone in the eye while you repeat their name and shake hands. This engages four out of five senses.

ORGANISING: The brain likes order, as it makes information easier to remember and decode. By preparing a study outline, for example, you help the brain to encode the information.

PACKAGE INFORMATION: Most of us break phone numbers into separate pieces, as in country code, area code and the actual number. This method of breaking information into easier to memorise units works for all large amounts of information.

ASSOCIATION: Research has shown that memory can be stronger by making associations when you first take in the information. By connecting new information to existing information or experiences in your mind you enhance the memory for both.

USING MNEMONIC DEVICES: If you learnt the phrase at school “Never, Eat, Silk, Worms” to remember the order of North, East, South and West then you have used a mnemonic device. There are many of these, but they all share one thing in common – they help us remember more complicated pieces of information through imagery, acronyms, rhyme or song.

REPETITION: Repeating information is part of the learning process and stores information in your long-term memory. Retrieving the information at timely intervals and repeating it again strengthens the memory.

Using these simple measures will help keep aging at bay and maybe even improve it over time. †





Illustration: 1356

Space odysseys may damage the brains of astronauts

Long-term exposure to cosmic rays may cause dementia-like cognitive impairments in astronauts.

It may not be space debris, errant asteroids, supply shortages, thruster malfunctions or even the malevolent aliens envisioned in so many Hollywood films that thwart astronauts on any mission to Mars. It may be the ubiquitous galactic cosmic rays that permeate space.

According to researchers, long-term exposure to these rays may cause dementia-like cognitive impairments in astronauts during future space round-trips such as those to Mars, which are expected to take at least 2½ years.

In a NASA-funded study, mice exposed to highly energetic charged particles like those in galactic cosmic rays experienced declines in cognition and changes in the structure and integrity of brain nerve cells and the synapses where nerve impulses are sent and received.

The irradiated particles in galactic cosmic rays, remnants of star explosions called supernovas, can penetrate spacecraft and astronauts' bodies. Earth itself is protected by its magnetosphere.

"Without a doubt people would face the same issues as the mice," said Charles Limoli, Radiation Oncology professor at the University of California, Irvine. "Astronauts may incur cognitive impairments that lead to performance decrements, confusion, increased anxiety and longer-term problems with cognitive health," said

Limoli. This could compromise mission critical activities, especially if unanticipated situations arise during deep spaceflight.

The mice, genetically altered to have green fluorescent neurons to help structural analysis, were exposed to the rays at the NASA Space Radiation Laboratory at the Brookhaven National Laboratory in New York and then analysed six weeks later.

In addition to the brain neuron and synapse changes, the mice exhibited decreased performance on learning and memory tests. They also lacked curiosity and were sluggish in experiments involving objects placed in a box with them.

Previous studies show synaptic impairment or loss of synapses is an early and invariant feature of Alzheimer's disease, and there is a strong correlation between the extent of synapse loss and the severity of dementia.

NASA says it is developing the capabilities needed to send humans to an asteroid by 2025 and Mars in the 2030s. NASA spokeswoman Stephanie Schierholz said a Mars mission would take at least 2½ years: a six-month journey there, a stay on Mars of at least 18 months, and a six-month flight back.

Limoli said while Mars-bound astronauts cannot fully escape the rays, it may be possible to design spacecraft with areas of increased protective shielding. ↑



NASA SAYS IT IS DEVELOPING THE CAPABILITIES NEEDED TO SEND HUMANS TO AN ASTEROID BY 2025 AND MARS BY 2030.

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RISE OF THE HACKS

The Arab World's top hackerspaces.

Hackerspaces and the spirit of collaborative economy have gained much traction over the past decade globally. There has been a marked rise in crowdsourcing, crowdfunding, collaborative consumption, and maker and hacker communities across the world. The same trend is being witnessed in the Arab world too where hackerspaces are helping turn innovative ideas into reality.

The Arab people are increasingly concerned about maximising benefits rather than just maximising profits. Their need to channel the entrepreneurial initiatives in a fitting atmosphere triggered the creation of more than 30 popular co-working spaces and 15 hackerspaces in the Arab World in 2013 alone.

WHAT EXACTLY IS A HACKERSPACE?

A hackerspace is an open-access laboratory intended as a technological playground. It promotes collaborative innovation, entrepreneurship – and potentially solutions to some of the biggest challenges facing the country they operate in. Participants are free to drop in, experiment with specialist technical equipment and share ideas. The concept originated in Germany in the 1990s, but took off only during the global financial crisis when skilled, newly unemployed people sought different ways to re-tool and channel their energies in a more entrepreneurial way.

These spaces offer entrepreneurs, freelancers, and startups a suitable environment allowing them to create and deliver projects. Their main advantage is that participants can minimise expenses, enhance experiences, get paramount assistance, and enjoy the benefits of newly-acquired knowledge. They can share their expertise, time, space and goods, both online or offline, thereby saving money and maximising use of resources while connecting with like-minded individuals at the same time.

EIGHT HACKERSPACES CHANGING THE ARAB WORLD

Many hackerspaces are cropping up across the Arab world claiming an agenda to make the world a better place by letting anyone, of any age, profession, or background, use a 3D printer and make their own electronic circuit. But hackerspaces involve a lot more than just 3D printing. Driven by post-revolutionary enthusiasm, they're about inspiring action, sharing knowledge, and working as a collaborative community. Here are some of the most interesting ones in the Middle East:

FAB LAB EGYPT

Fab Lab (Fabrication Laboratory) Egypt is part of the international Fab Foundation out of MIT (Massachusetts Institute of Technology). It focuses on giving everyone the capability to make >





times of reconstructive surgeries. It has supported five team members to be Fab Academy graduates, thus being the first and only authorised Fab Lab in the Arab World to provide Fab Academy – a Digital Fabrication Program directed by Neil Gershenfeld of MIT's Centre for Bits and Atoms.

CAIRO HACKERSPACE

Egypt's first hackerspace, this is an open source community lab/workspace/resource centre where engineers, designers, scientists and artists can collaborate and share ideas and tools and form teams to implement a project. It functions as a centre for peer learning and knowledge sharing, in the form of workshops, presentations, and lectures. Additionally, it provides machine tools (Makerbot 3D ABS printer), electronic



› “almost anything.” They even develop and deliver education and training material in all the fields of digital fabrication, electronics, arts and crafts in general. Participants of the Fab Lab gain access to a global community of learners, educators, technologists, researchers, makers and innovators – a knowledge-sharing network that spans 30 countries and 24 time zones.

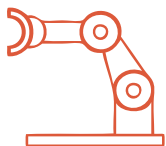
Fab Labs promote innovation and education by providing collaborative open hackerspaces equipped with digital fabrication and prototyping machines & tools. They also conduct hands-on workshops and provide training using MIT-based curriculum.

Fab Lab Egypt is one of the first technology-related NGOs to work side by side with one of the biggest medical entities (Kasr Al Ainy School of Medicine – Cairo University) to implement the 3D Printing technology to help thousands of Egyptians overcome the high prices and long recovery

instruments and components and raw materials for hacking, and various other tools for electronics fabrication and building things.

ALEXANDRIA HACKERSPACE

Describing itself as “a small community of hackers, geeks, developers, makers, techies and artists in Alexandria, Egypt”, Alex Hackerspace provides a place to brainstorm solutions, modify products, implement prototypes, and organise workshops. It was founded in 2012 by a group of young people on a mission to change the way of education in the Arab world – from the traditional and theoretical way into practical learning experience based on applying and experimenting. Since then, they have trained over 700 participants in programming, design and electronics for both hobbyists and professionals. Alex Hackerspace is also the mind behind Alexhacker.com, the first DIY (do it yourself) Arabic website.



**FAB LABS
CONDUCT
HANDS-ON
WORKSHOPS
AND PROVIDE
TRAINING
USING
MIT- BASED
CURRICULUM.**

LAMBA LAB

Founded by Bilal Ghalib (an Iraqi-American hackerspace advocate), the Global Entrepreneurship and Maker Space Initiative (GEMSI) and a team of highly energised Lebanese hackers, Lambda is Beirut's first hackerspace. An interdisciplinary collaboration, it provides an open, accessible community space focused on the sharing of knowledge and hands-on learning. All skill levels, from beginner to expert are welcome here to experiment, develop and innovate in a climate conducive to the spread of know-how in the fields of technology, art and science. The Lambas embrace members and causes from all sectors, from political empowerment to robotics engineering and women's rights to game



development. It is this all-encompassing energy that keeps them relevant and constantly growing.

FIKRA SPACE

Following the success of Lambda, Ghalib organised a two-day pop-up hacker space in Baghdad in 2012. The event was such a success that it led to the launch of a permanent hacker space: Fikra Space. Here, people with common interest, in computers, technology, science, art and anything else, meet, socialise, share their knowledge, build new things or make use of existing things, make workshops and collaborate.

SAHARA LABS, TARFAYA

An interdisciplinary collaborative set to create an accessible and open community space, it focuses on sharing and hands on learning. Sahara Labs was founded by TEDx Tarfaya organiser El Wali

FIVE ARAB PROJECTS THAT MASTERED CROWDFUNDING IN LESS THAN 5 DAYS

The Arab world of collaborative spaces is taken by storm, as five Arab projects mastered crowdfunding, raising over \$25,000 in less than five days. The projects are participating in the Collaborative Spaces Challenge, an initiative launched by Zoomaal and Mideast Creatives earlier this year to support co-working spaces in the MENA region.

1. **The Al Maqarr co-working space** was the first project to reach its funding goal, with the record of raising \$5,000 in less than 24 hours. Originally from Egypt, the project already counts over 5,000 members, 90 organisations and 35 startups on board.
2. **Qafeer Maker Space** reached an impressive \$9,000 since the launched of the campaign, surpassing their goal by over 150%. Qafeer is the first co-working space in Egypt's 6th of October city, focused on helping Egyptians create prototypes for their products.
3. Tunisia's first co-working space, **Cogite Creative Corner**, was overfunded by 126%, reaching an impressive \$6,200 in four days. The project aims to democratise the entrepreneurial ecosystem in Tunisia by introducing access to quality tools and platforms for entrepreneurs to thrive.
4. **Hackzone**, Egypt's hacker community, surpassed its crowdfunding objective by 116%, having raised over \$4,600. The project, dedicated to help read, write, speak hackers' language and enrich Arabic content, has already trained 1,210 individuals.
5. **Alex Hackerspace** for only creators was the second fastest funded project, reaching their \$2,000 objective in less than 30 hours. The project also films educational videos in Arabic to teach electronics to hobbyists all over the region.

The MENA spaces challenge offers the opportunity for collaborative spaces to double their funding by matching every \$1 contributed with another \$1 from Hivos, an international organisation that seeks new solutions to persistent global issues.

El Alaoui Mohamed El Mostapha. "In Tarfaya there is only one school, one high school, and no other place to get knowledge. People here are creative – especially kids, youth and women – so this is why we built our space," said El Mostapha at the launch of Sahara.

"Sahara Labs – Tarfaya Hackerspace – is for everyone," they say on their Facebook page, "and everyone is invited to all of our events and meetings. Anyone from beginner to expert can participate and play and develop together with technology, art, design and science in a positive experimental environment. ♪

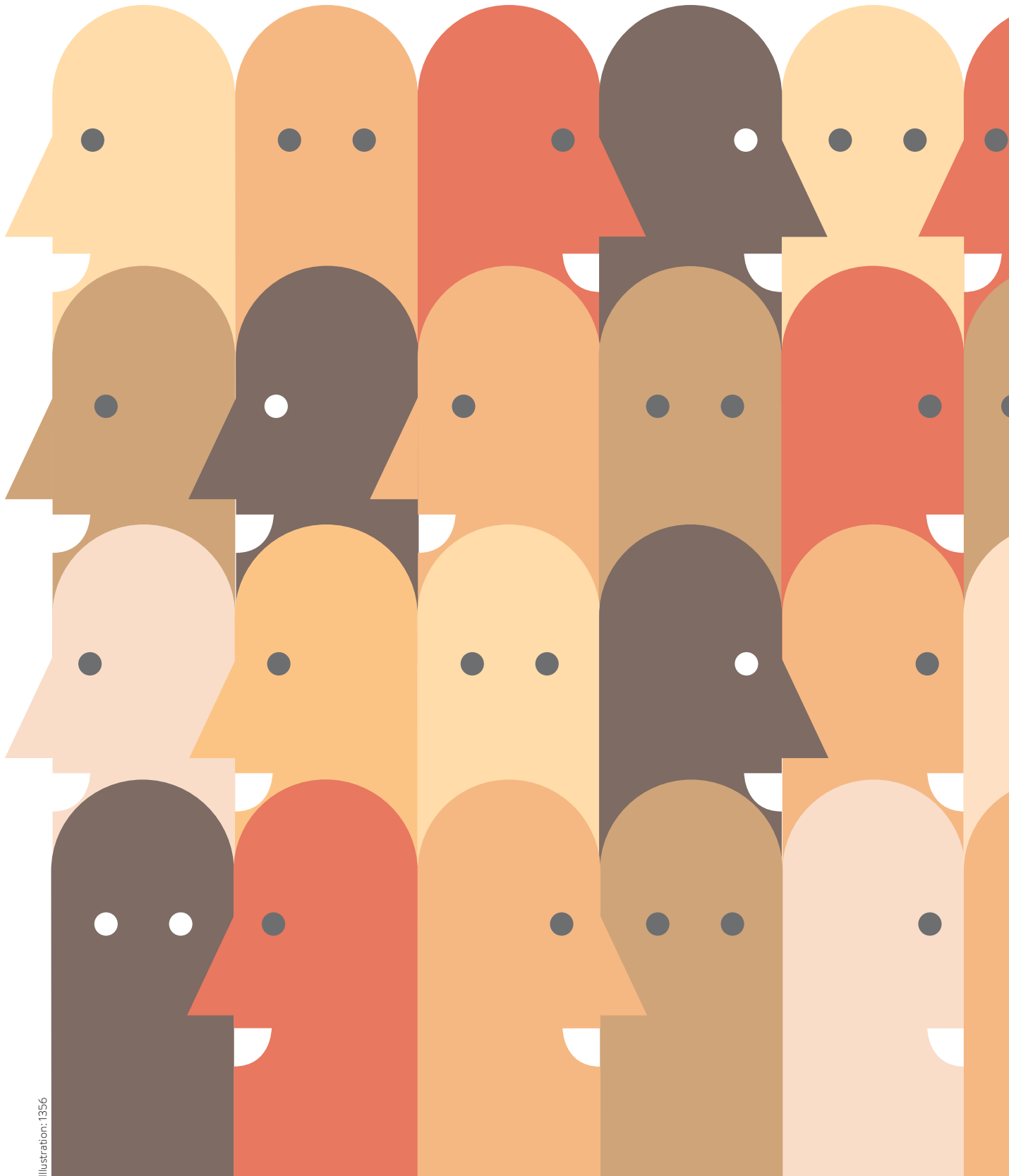


Illustration: 1356

A stylized illustration on the left side of the page depicts a group of people from various backgrounds. The figures are represented by simple, rounded shapes in shades of orange, brown, and red. Some have white dots for eyes, while others have white curved lines for mouths, suggesting a variety of expressions and features. The figures are arranged in a cluster, with some overlapping, creating a sense of a diverse group.

**BRINGING PEOPLE
FROM DIFFERENT
BACKGROUNDS
TOGETHER TO WORK
IN TEAMS CAN HELP
GENERATE NEW
IDEAS, BUT CREATING
DIVERSITY ACROSS
TEAMS CAN UNLOCK
EVEN GREATER
INNOVATION,
REPORTS VIKAS
AGGARWAL**

> Organisations in today's era of hyper-competition are increasingly reliant on innovation to sustain a competitive advantage. This is particularly true for newly established start-ups, where ongoing innovation is fundamental to effective product market competition.

An important precursor to innovation is the ability to take knowledge from different areas and to recombine it in new and impactful ways. Teams are an important aspect of this process. Having people work in teams and sharing ideas can allow firms to create a more sustained pipeline of innovation than the "light-bulb moments of lone genius," as noted by Aspen Institute CEO, Walter Isaacson. While the need for team-based innovation is widely acknowledged, less well understood is how multiple teams should be organised within a company in order to maximise innovation for the firm as a whole.

KNOWLEDGE RECOMBINATION VERSUS COORDINATION COSTS

Much research has been done highlighting the positive impact of having diverse teams made

up of members with varied technological backgrounds. What has often been overlooked, however, is the benefit that can be gained from across-team diversity – putting together teams that may not be diverse with respect to the composition of their individual members, but which are very different when compared to other units within the firm.

There are a number of reasons for taking a 'big picture' approach to organising teams. In order for innovations to happen, firms need to maximise the benefits of knowledge recombination and minimise the costs of coordination – the frictions and communication difficulties that occur because of the different backgrounds and experiences of the players. Often the very diversity that sparks the cross-fertilisation of new ideas within a team can stymie its use in new and impactful ways across the company.

Managers need to consider this when designing firms for innovation, particularly when the organisation has multiple innovations occurring simultaneously, and many interdependencies among its teams of innovators.

What has often been overlooked is the benefit that can be gained from across-team diversity.



TEAM ORGANISATION AND FIRM-LEVEL INNOVATION

The impact that different approaches to firm-level team organisation have on innovation is the focus of a recent study with my colleagues David H. Hsu and Andy Wu from the Wharton School. In our paper *R&D Production Team Organization and Firm-Level Innovation* we studied 476 biotechnology start-ups from their founding date onwards, examining the implications for firm-level innovation of different approaches to organising the diversity of inventors' technical experience. Particular attention was paid to the interplay between knowledge production and coordination.

What we found was that companies organised with higher levels of across-team diversity – for example, creating very different teams each specialising in a particular area – had a greater positive impact on company innovation than those organised with higher levels of diversity within the unit.

There were contingencies however, one example being the extent to which inventors

on a particular team had previously collaborated with one another. This relationship was found to influence teams' collective identity and group cohesion, making them less likely to seek out knowledge from other teams hence reducing the benefits of across-team diversity. In addition, combinatorial novelty – the degree to which teams pursued truly breakthrough innovations – increased the benefits of ensuring diversity within a team.

KEEPING AN EYE ON THE BIGGER PICTURE

The results of this study can apply to many situations where there is a need for ongoing team-based innovation. Teams do not operate in a vacuum, and with innovation becoming increasingly important to a firm's success, managers need to pay attention to the trade-offs between knowledge recombination and coordination costs at multiple levels of the organisation. Managing diversity should take into account not just a team-by-team perspective, but rather keep an eye on the bigger picture of across-team diversity. ↑

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COMPANIES ORGANISED WITH HIGHER LEVELS OF ACROSS-TEAM DIVERSITY HAD A GREATER POSITIVE IMPACT ON COMPANY INNOVATION



VIKAS A. AGGARWAL

is an Assistant Professor of Entrepreneurship and Family Enterprise at INSEAD. His research centres around strategy issues in entrepreneurial settings, focusing on venture-backed start-ups, as well as larger firms experiencing significant environmental change.

A WHIFF OF HISTORY

The history of perfume is as old as the existence of humanity itself.

From spiritual texts that promise moral men and women rewards of sweet smelling gardens and robes, to the current day where fragrance is used to define one's personality, the story of perfume is an enduring one.

Originally, mere mortals were not considered worthy of perfumes, as fragrances were reserved for the divine. Incense and scented oils were restricted to temples and priests and made their way down to common use only much later.

THE BEGINNING

Perfume, from the Latin *per fume*, means 'through smoke'. The Egyptians were the first to incorporate perfume into their culture, with the earliest perfume bottles found by archeologists dating back to 1,000 BCE. Other civilisations such as the Chinese, Hindus, Carthaginians, Arabs, Greeks and Romans followed suit.

The Egyptians were the first to use perfume for personal enjoyment, but only the priests were allowed to produce it and wear it. As a result, many temples had special rooms that served as early laboratories. Much later, the pharaohs and their queens were allowed to use perfumes. Scents also played an important part in the afterlife as the Egyptians





*"Smells
are surer than
sights and
sounds to make
your heart-
strings crack."*

Rudyard Kipling



THE
EGYPTIANS
USED TO
MUMMIFY
AND EMBALM
THEIR DEAD
BODIES WITH
MYRRH AND
CASSIA.

mummified and embalmed bodies with myrrh and cassia (a kind of cinnamon).

Later, Egyptian women began wearing perfumed creams and cosmetics made with scented oils. Roses, lilies and violets were steeped in oil and rubbed on the skin. Powdered spices, scented oils and resins were made into beads and worn as necklaces and bracelets. Burning incense became popular and also became part of religious rituals.

SPREAD TO GREECE AND ROME

Perfume arrived in Greece via Phoenician traders, and the ancient Greeks soon improved on the Egyptian techniques. The Greek were known to use an extraordinary amount of perfume.

After the conquest by the Romans, it didn't take long for the Greek perfume influence to spread. Just like the Egyptians, perfume in the Roman Empire was initially only used at religious events and funerals of highly placed persons. But, once again, the Romans took the creation of fragrances one step further through new techniques. Soon the rich were sprinkling perfume around their homes, and at parties and festivals it was not uncommon to have fountains filled with perfumed water.

ARRIVAL IN THE ARAB WORLD

The rise of Christianity, which regarded perfume as frivolous, saw a huge decline in perfume's popularity. However, the Arabs preserved the custom and retained and built on previous knowledge. In the 10th century, Avicenna, the Muslim physician and alchemist, perfected the process of distilling oil from rose petals. This development made the production of essential oils possible, which is still a huge industry in countries like Turkey. Popular fragrances in those times were musk, rose and amber.

SCENTING THE WORLD

The fall of the Roman Empire, the invasion of the barbarians and endless wars pulled the Western world into the Dark Ages, which was hardly the place for perfume. But this changed by the 12th century as the perfume trade emerged thanks to more peaceful times, the creation of universities, the increasing competence of alchemists and the discovery of the distillation process.

In the second half of the 14th century Eau de toilette, also referred to as "aromatic waters", appeared. It was originally composed of alcohol and various volatile oils. Traditionally, these products were



Hieroglyphics
depicting the
making of
perfume



Edmond Roudnitska caused a small revolution in the perfumery, by using hedion in his beautiful creation for men: Eau sauvage.

named after a principal ingredient; some being geranium water, lavender water, lilac water, violet water and spirit of myrcia. Due to this, Eau de toilette was sometimes referred to as “flower water”. In modern perfumery, the term Eau de toilette is generally used to describe the concentration of fragrance, with Eau de toilette being weaker than Eau de parfum and stronger than Eau de cologne. In 1656, perfume received official recognition from the French with the establishment of the Guild of Glove and Perfume Makers. In that era, women wore perfumed gloves for a long-lasting fragrance. So popular did perfume become that the Court of Louis XV was dubbed the “perfumed court”.

More than 1,000 years after perfume came into existence, a fragrance finally received a name in 1675, with the creation of Bouquet à la Marichal. But the real revolution came in the 18th century with the introduction of Eau de Cologne. The original Eau de Cologne is a spirit-citrus perfume launched in Cologne in 1709 by Giovanni Maria Farina, an Italian perfume maker from Santa Maria Maggiore Valle Vigezzo. The Eau de Cologne composed by Farina was used only as a perfume and delivered to “nearly all royal houses in Europe”. His ability to produce a constantly homogeneous fragrance consisting of dozens of single essences was seen as a sensation at the time.

AROMA IN THE 19TH CENTURY

The development of organic chemistry in the 19th century enabled the production of synthetic perfume materials. Up until this point, the process of gathering and extracting materials from flowers, plants and animals was labour intensive and expensive. For instance, 8,000 jasmine flowers yield 113 grams of Jasmine pure essence, while Orris Root, the dried bulbs of Iris plants, is dried for two years before it is used to create a fragrance. Thanks to cheaper materials, perfume could now go mainstream.

By the end of the 19th century nearly 2,000 people were working in the French perfume industry. The world exhibition of Paris in 1900 became the crowning success of the perfume industry as the perfume pavilion was magnificently decorated and featured a host of exhibitors.

From this moment onwards, the modern perfume industry came into existence. Besides the scent, other elements became important such as the bottles, wrapping and the advertising. Perfumers started to cooperate with famous glass manufacturers such as Lalique and Baccarat, designers and the world of advertising.

France boasted the most famous perfume designers in the world at this point. Edmond Roudnitska caused a small revolution in perfumery by using hedion in his beautiful creation for men: Eau sauvage. In this period scents for men



Avicenna, the Muslim physician and alchemist, perfected the process of distilling oil from rose petals.



In 1921, Gabrielle (Coco) Chanel launched her own brand of perfume with Chanel no. 5.

Opium was also an instant success, and with its acceptance by women everywhere, came the beginning of the perfume explosion.

became increasingly popular, and competition increased through the introduction of overseas fragrances.

In 1911, Paul Poiret, a couturier, was the first to create a perfume as a supplement to a fashion line. He called it Les parfums de Rosine in honour of his eldest daughter, but his commercial approach was lacking.

Instead, it was the couturier houses that led the proliferation of new fragrances in the 1920s. In 1921, Gabrielle (Coco) Chanel launched her own brand of perfume. Her perfumer, Ernest Beaux, presented several lines of fragrances to Coco Chanel. And with line number five, Chanel No. 5 was born. The 1925, Guerlain created Shalimar. And

the 1930s brought the renowned fragrances Je Reviens, Tabu and Joy. Still, perfume prices remained high. Up until the 1940s, perfume was used mostly by the upper class. In 1949 Elizabeth Arden, Coty, Guerlain, Helena Rubenstein, Chanel and Parfums Weil created the Fragrance Foundation to educate the American public about fragrance. Today, according to the Fragrance Foundation, the US is the "largest fragrance market in the world."

By the 1950s, with the creation of perfume houses such as Coty and Max Factor, less expensive scents were becoming available.

Then came Opium by Yves Saint Laurent in the 1970s. Opium was an instant success, and with its acceptance by women everywhere, came the beginning of the perfume explosion. Designers and perfumers teamed up with Estée Lauder, Karl Lagerfeld, Ralph Lauren and Calvin Klein to make waves in the marketplace.

Today, perfume is a luxury industry and walking down the fragrance aisle can be overwhelming. Lined with scores of scents, olfactory alarms start to go off the minute you step through the doors. And with the global perfume industry expected to be worth \$33.8 billion by 2017, it is definitely here to stay. †





*Blend
Oud*
The natural perfume

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opera
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