

Qatar Foundation Research Forum
The Government's Role in Promoting ICT Research

Keynote Address

Dr. Hessa Al-Jaber, ictQATAR

Many thanks for your kind introduction.

I am delighted to speak to this Research Forum. I want to say at the outset that ictQATAR is deeply indebted to the Qatar Foundation for its work and support.

We are building the future of Qatar together, and we take pride in everything this Foundation does.

Today, as Qatar rapidly moves up the world rankings for its investments in building a knowledge economy, it is tempting to believe that **everything we are doing, and everything we have done, has been a resounding success.**

Indeed, we have made remarkable progress in a short period of time. We have done in less than a decade what it took other nations almost a half-century to accomplish.

We have organized, built, and started to benefit from the foundational elements of a highly connected, knowledge-driven economy. And yet, I think we can all agree there is still more work to be done.

So today, I want to focus on the new possibilities. I want to talk about how investments in information and communication technology, or ICT, will have a dramatic impact in improving the environment for innovation and research in Qatar.

I will spend some time addressing how we have moved to position ourselves to be a new destination for research and discovery. And I will conclude by talking about just three of the many different areas where all of us can work together to transform not only Qatar, but also the entire region, as we move forward in this new digital world.

What We Know

In the ICT sector we all spend a good deal of time thinking about what it takes to build an ecosystem of knowledge creation and discovery. We marvel at the pockets of discovery – **those areas around the globe** where the **right investments, the right universities, the right people, and the right environment** combine to create a hothouse of innovation and entrepreneurship. To name just a few of those areas: Silicon Valley, the Nanjing-Beijing corridor, Singapore, and now, Education City.

What we have learned, first and foremost, is that *no nation and no region* has a monopoly on innovation and new thinking. In the right environment, the mind can flourish. There is no area on the globe that has an inherent advantage in asking new questions, or exploring new areas. Anywhere you have a collection of smart, young and ambitious individuals, you will have fresh thinking. That happens to describe Qatar – but it also describes a lot of places.

That means that anywhere and everywhere great research is possible, and new approaches can be found. **That is a wonderful thing**, because it means that a nation and region like ours, which came to the game a bit later than others, has an equal chance to compete.

While measuring the impact of such national R&D investments is difficult, some studies suggest that private companies earn 20 to 30 percent returns on their R&D spending. We think that on a national level, the returns are likely to be even higher.

What We've Been Doing- Building the foundations for innovative ICT sector

So allow me to take a few moments to review what ictQATAR is doing to assure that we have the right environment to research and innovation:

1. **First, we have been building the right ICT infrastructure** that is essential for innovation. A next generation national broadband network will be high-speed, affordable and ubiquitous..

Think of it this way: When people are brought together in greater proximity, and can interact more often, innovation inevitably follows.

Those countries with high broadband usage reap what experts call a “broadband dividend.” And since these experts use an investment term to explain the long-term benefit, let me add my own: Every dollar we put into broadband access is like a dollar saved for our children’s long-term inheritance. Each 10% increase in broadband penetration means another 1.5% increase in total labor productivity. That increase greatly improves future standards of living..

We here in Qatar are investing heavily in building a new national broadband network that will be high-speed, affordable, and open with a goal of hitting our coverage targets – 100% of government and business, and 95% of all households -- by 2015. This half-billion dollar investment is going to make *Qatar, its households, businesses, government agencies, and universities, one of the world’s most connected societies with high speed network.*

2. **Second, we have been setting the right legal and policy system.** IctQATAR is an active proponent of policies that represent best-practices from other markets, as well as policies needed specifically here. Some of these matters are highly technical, dealing with issues such as licensing and technology neutrality. Some deal with issues that we can all relate to, such as user privacy and consumer protections. Some will be highly relevant to the research community, such as intellectual property rights.
3. **Third, we are stimulating demand for innovation** by creating an environment for an innovative ICT Industry, and increasing the innovative uptake to all stakeholders. Our objective is to facilitate the emergence of new public and private markets for ICT-based innovative solutions—thereby enabling the ICT sector to grow here. We know there are challenges—for individuals, SMEs and the public sector—in building better links between research and commercialization.
 - For individuals: We will make sure that research outcomes meet societal and business needs so we will increasingly involve the user of ICT innovations.
 - For SMEs: We will continue working with SMEs to increase the uptake of ICT, and place them at the centre of innovations. We will help them connect with available funds, researchers and policy makers. We will work with

Qatar National Research Fund to have a policy for a fast access to QNRF research funds in ICT and making them more attractive to SMEs and young researchers.

- For the Public Sector: We will continue driving the use of innovative applications to improve public service delivery. ICT research must tackle our challenges to achieve social sustainability by improving the way our society and government provide education, healthcare and services.
4. **Fourth, we have identified key areas of research** where together with industry, researchers, universities and YOU, we can all map out concrete research strategies that will assist Qatar to lead in terms of innovation and growth. We will also encourage innovators by making our national spectrum available to researchers through flexible experimental licensing rules.
 5. **Fifth, we have established an Incubation Centre** to focus on the development of new digital services and applications. This centre is going to promote entrepreneurship by helping innovators understand how to acquire financing, develop their product idea to a market-ready idea, provide support for early-stage R&D, and capture economic value from broad Internet use.
 6. **Sixth, we will support the development of commercially focused Arabic digital content** and seek to engage the complete supply chain from content creators, to infrastructure providers (such as Qtel, and Vodaphone) and broadcasters/publishers (including Al-Jazera and Google) to drive growth and create economic benefits.

In all of these dimensions, we are working closely with all government agencies and sectors.. We want to play the role of digital incubator, bringing to various sectors the awareness not only of digital technology, but also of how digital applications can transform the lives of Qataris.

The Forward Agenda

To make sure that this transformation is a positive one, we have identified key areas of research to meet our agenda in the coming years. I am going to limit my

focus on three of those areas, and I am asking for your help as we pursue these goals:

First area is “Internet and Society”

Qatar must have a way to think about the power of the Internet in a positive way, and to be guided by principles that we establish today. We have started a program that focuses on the study of the “Internet and Society”, and we will be working with the other international “Internet and Society” centres in Harvard, Stanford, Turin, Oxford, and Bangalore.

Our program will serve as a research hub for addressing the many issues arising from Internet technology, policy and economics. This program will study the impact of the Internet and its governance on the progress of society. It will develop policies and programs to empower the Qatari people to use the Internet to strengthen their communities and regional economies. It will explore how emerging technologies, such as cloud computing, will transform our schools, our medical care, and our business life.

I want Qatar to move boldly into the digital age with a full appreciation for the legal, social, and political implications of the Internet, especially on our children. This program will help us protect our children and our values and guide us as we use social networks to deepen our citizens’ engagement with government.

One of the key initiatives of this program is the “**ICT and Youth**” project. I am proud to say that ictQATAR is working with INSEAD, along with a local advisory committee comprised of academics, researchers from Qatar University and Northwestern University, policy-makers, and youth advocates to study the profound effect of ICT on today’s youth.

We view the understanding of this impact as essential to creating an environment in which Qatari youth can thrive. The study will examine Qatari youth ages 11-29, covering preparatory and high school students, college students, drop-outs, recent graduates and young workers. A sample of 1200 Qataris will be included in the research.

The primary objectives are to understand ICT's impact on youth – their identity, attitudes, values, behaviors, aspirations and motivation – and also on the economy, governance, and infrastructure. The study will include recommendations, which will be translated into new national programs and policies, which will enable us to harness the power of ICT and help Qatari youth to realize their full potential.

We are looking for help from researchers for addressing the future of the internet and its relation with our society and law.

Second Area is “Digital Arabic Content”

. There is little doubt that the Internet remains largely an English-dominated medium. We cannot expect Qatar to achieve near-100% Internet usage so long as we are all working in a second language. It is like asking us to develop a deep appreciation for poetry only by reading and writing poems in Italian. Arabic speakers make up 5% of the world's population, yet only 1% of its Internet content. This gap is holding us back.

We need to populate the Internet with Arabic content that reflects the very best of our heritage and contemporary society. We are working in two programs and I need your help:

In the “Digitization” program, we aim to work with all government agencies to establish a national archive system for public access. Qatar has a wealth of historical and contemporary documents handwritten, maps, manuscripts, videos, music, and radio recordings. All these records belong to the public who should be able to openly use and access.

Also in Qatar, our cultural landscape is progressing with the opening of the prestigious series of museums. We will work with museums, artists, broadcasters, the private sector, and the newly-established filming industry to digitize their valuable and unique artifacts.

We are looking for the help of the researchers in digitizing the materials in Arabic. We are also looking to tap into University City of London which will soon join the Education City and offer programs on museum studies, conservation and archeology. These master degree programs will provide us with a pool of researchers who can help us in preserving and digitizing Qatar's cultural heritage

In our “Digital Arabic content” program we aim to create an ecosystem to spur innovation in which entrepreneurial and businesses promote Arabic content through our incubation center. In making Arabic content become more widely available, demand for further content will rise, creating the critical supply-driven positive cycle that we have seen in so many other Internet technologies, including social media. A market for ideas, applications, software and other tools will emerge from such a cycle, putting us on a new trajectory of change.

We are looking for the help of the researchers to lead the creation of what we call “born-digital content” – content that is produced in Arabic, and read, seen and appreciated in Arabic -- because ultimately, tomorrow’s entrepreneurs and researchers will be working strictly in digital channels.

Third Area is “Innovative Broadband applications”

We want to make sure we pursue more research into different kinds of innovative applications. We want to see more broadband applications that make it possible for people to get the best possible schooling and medical care, for example. We want to promote uses of broadband network to promote better energy management. We want applications that promote public safety. We want applications that push assistive technology to a new level.

We are looking for the help of the researchers particularly in assistive technology in a number of fields including Brain-Computer Interfaces, cloud-based assistive technologies and pervasive and portable. We seek new solutions to support Arabic speakers on traditional platforms – including both the need for developments in areas such as Arabic voice recognition and word prediction, as well as tools and solutions that enable the easy creation of digital content and web presence in fully accessible and alternative formats.

Conclusion

These steps are all grounded in a firm conviction that while we have only recently activated our digital economy strategy, we have what we need to build an

economy rooted in the creation, dissemination, and exploration of new forms of knowledge.

We are committed to making whatever investments are necessary, and addressing whatever opportunities are available to us, to bring Qatar into the world's very upper tier of ICT markets.

You are the technical researchers, who will help us and enable us to create the future. With your support, we look forward to returning year after year with more to show for our efforts in building a digital economy. I believe that in time, there will be no need to show these results, because they will be apparent to all of us, no matter where we are, no matter what we do, as we make Qatar a more hopeful, more advanced nation.

Many thanks.