



The Social Impact of eHealth
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■ Agenda :

- Introduction
- eHealth social impact studies
- KSA eHealth future opportunities and challenges
- KSA eHealth socio-economic impact measurement
- Conclusion and recommendations



Introduction

Introduction - Survey



Q1 :

Who asked Dr Google before or after his medical appointment?



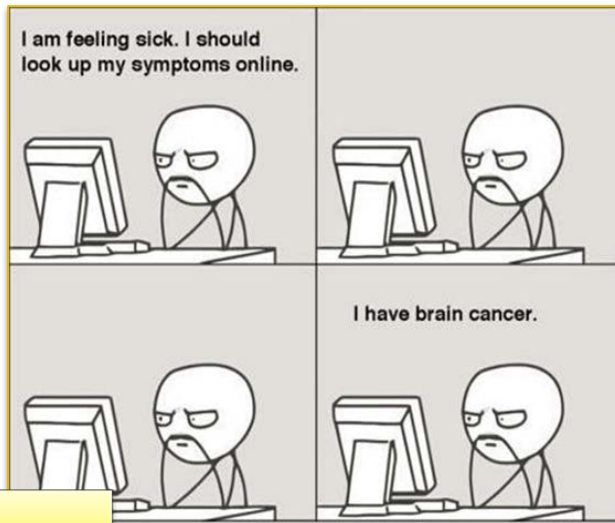
Q2 :

Who have installed Health related Apps on his smartphone ?



New Behaviors

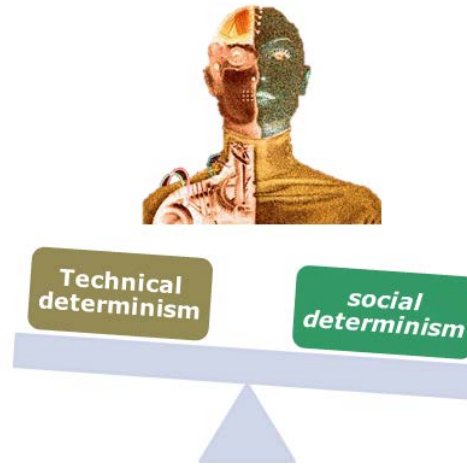
Whatever are the outcomes (Benefits, dis-Benefits !) from technology use :



It is always exciting to study **how technology engages and influences our lives...**

Perspectives on technology in our lives

“technologies form and mold society, technical devices are at the root of social formations”



“technologies are continually reinterpreted by users and given new, often unexpected, trajectories”

From : Individual acceptance of technology innovations, theory and perspectives

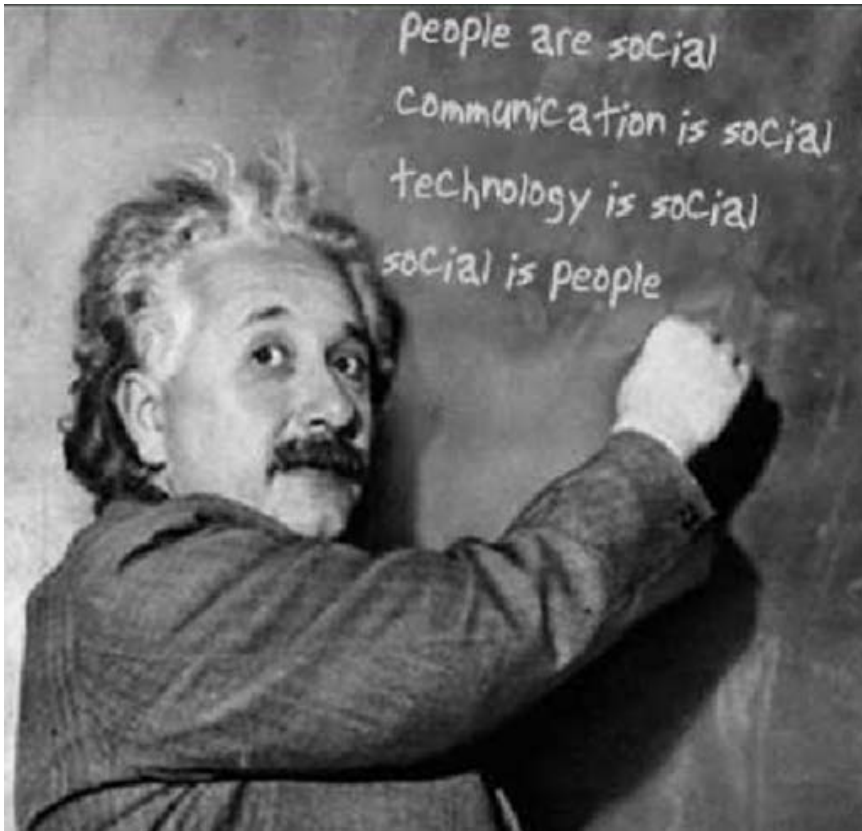


In today's Digital Age there is more and more synergistic relationship between **technology** and **society** , it can be defined as cyclical co-dependence, co-influence relationship.



eHealth Social Impact studies

The **Social Impact** of **eHealth**



By social impact we mean the consequences to human populations of any public or private actions or that alter the ways in which people live, work, play, relate to one another, organise to meet their needs and generally act as a member of society.

from Burdge and Vanclay 1996

eHealth Social Impact Domains^{*}

Influence in terms of efficiency, effectiveness & innovation. The focus here is on effects such as speed, reach and flexibility of interactions, or exchanges, between societal stakeholders, i.e. the notion of 'transactional economics'

Rationalization



Changes in the patterns of links and communications that occur or are enabled as a result of eHealth, it also touches upon the quantity and quality of relationships between people, i.e. the notion of 'social capital'

Networking



Changes in the balance of power and the nature of relationship between societal stakeholders. It studies the evidence of individuals empowerment in term of choice & control and how eHealth relate to 'social participation'.

Empowerment



Opportunities for new learning and health knowledge development. To what extent eHealth improved people's capacity to utilize information in a process of lifelong learning, i.e. notion of 'information society'

Lifelong Learning



^{*} adapted from : [Study on the Social Impact of ICT, EU , University of Siegen](#)

Rationalization – making an impact with Telehealth



1

Telehealth and telecare offer considerable 'win-win-win' : potential better care for patients , cost containment in long-term care services and market opportunities for the ehealth

2

Telehealth will support the social innovation that will change the landscape of healthcare. By connecting the unconnected the patients

3

Saudi Arabia has allocated a huge budget for e-health, since access to healthcare services in remote and rural areas is of prime importance.

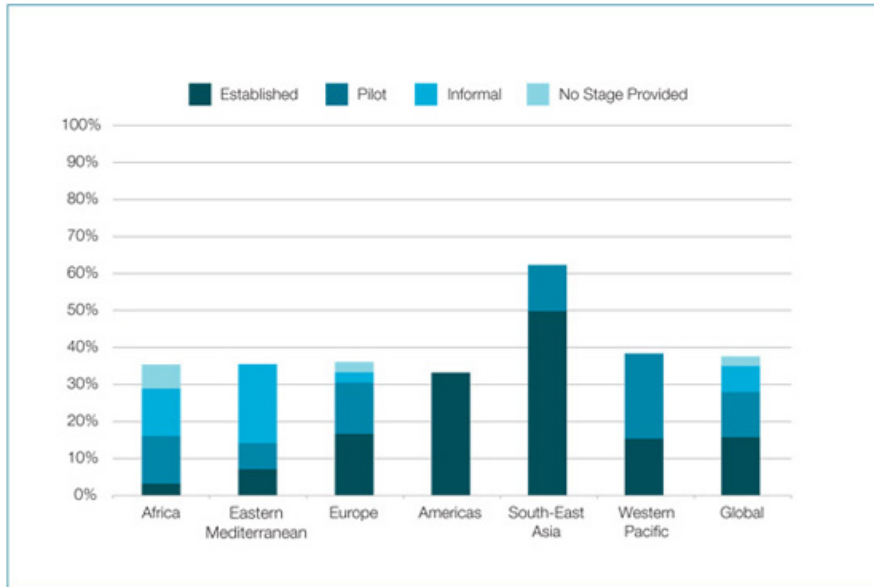
4

Evaluation initiative is needed to evaluate how the use of telehealth and telecare services can support people with long-term health and care needs to live more independently. And to measure the socio-economic benefits in KSA

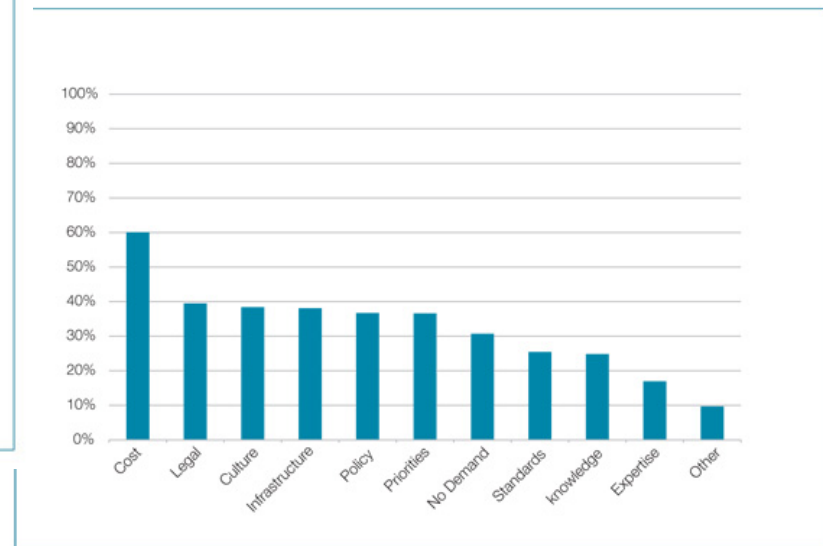


Global Observatory for eHealth - Telemedicine

Tele dermatology initiatives by WHO region



Barriers to telemedicine globally



Reviews pointed to substantial organizational, ethical, legal... matters that need to be resolved before widespread implementation. A study* revealed that the greatest barrier for Telehealth in KSA as perceived by health providers was the lack of knowledge about telemedicine

* "Successes and Challenges in the Implementation and Application of Telemedicine in the Eastern Province of Saudi Arabia", Oct 2012

KSA Study on TeleDermatology:

Faculty of Dermatology, College of Medicine, King Faisal University, Saudi Arabia

Evaluation of the use of a 4G smart phone for mobile teledermatology.

Refusal to participate - a problem not limited to teledermatology - needs to be considered when designing teledermatology protocols for larger scale implementation in areas like the Middle East



Most of the responders were highly satisfied with teledermatology

14% refused photography of the skin lesions. The main reasons for refusal to be photographed were stated as **social** or **religious**



Networking – Making impact with Health 2.0



1

Internet has provided unprecedented possibilities for consumers/patients to get in touch with and share experiences with others who have similar health conditions, even the rarest

2

Increased access to social capital may provide the type of social support that has been shown to improve health experiences and outcomes, More research on the comparability of online and traditional face-to-face support is needed.

3

Internet has enabled collective knowledge generation on health matters, e.g. user ratings of providers, collective content collation and 'publishing'. However little research is conducted on the impact of social media on healthcare.



KSA - Social networks are underexploited in Health!

MOH channel on Youtube



- » With over **6 million active Facebook users**, Saudi Arabia has the highest Facebook user rate in the region (GCC)
- » More than **90,000,000 videos are watched daily** on Youtube on Saudi Arabian soil, that's more than any daily Youtube video viewership number world wide!
- » Saudi Arabia accounts placed **Arabic** at the top of the pyramid of the fastest growing languages on **Twitter!**



from <http://www.thesocialclinic.com> : the state of social media in Saudi Arabia 2012

Empowerment – common themes



1 Most consumers/patients who look for health information online report being better informed, and this can be brought to bear when making healthcare decisions and in interacting with doctors

2 the Internet increases access to alternative healthcare providers

3 There is the risk that online patients/consumers become more easy to target by health related advertising / marketing activities (creation of 'un-necessary' demand), and there is the 'grey' area of online marketing and purchasing of medications

4 Whilst many want to be empowered through more choice and influence, some do not want to take responsibility and others lack the knowledge/ competencies needed.

KSA – Health Apps Landscape



Smartphone Penetration Will Drive Demand for More Health Apps... Smartphone penetration will be the main driver of mHealth in KSA, giving rise to demands from patients or nonpatient users for increasing insight into and understanding of their health and wellness. The smartphone has become a device that people "can't live without."

Lifelong Learning – making an impact with “Health on the Web”

1

'Health-on-the-web' provides consumers/ patients with enormous possibilities for enhanced, self-directed, lifelong learning on health matters

2

The quality may be variable and there can be risks of information overload, or dis-information. so good 'ehealth literacy' skills are needed

3

ICTs also offer important possibilities, such as SMS text messaging and other 'push' applications to distribute targeted health information and education

4

have better reach across social groups and thus help bridge 'ehealth divides'



KSA Studies on Health on the Web:

The College of Public Health and Health Informatics, King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), Riyadh

*Empowering Saudi patients:
how do Saudi health websites compare
to international health websites?*

The study found that, in general, English websites have higher levels of performance with regard to quality of information, authority and objectivity, coverage and currency, and design. The results indicate that much more work is needed in designing Saudi Health to make them more trustworthy and credible.



» The results of an assessment of Arabic health sites showed that a very small percentage (almost 4%) meets international standards *

« It is important for the 300 million Arabic citizens to be able to access valuable health information on the internet *

* "Empowering patients and health professionals in the Arab world: the King Abdullah bin Abdulaziz Arabic Health Encyclopedia on the Web." 2011

KSA Health on the Web – a foot in the digital door

Seha Online (MOH -KSA)



Arabic Health Encyclopedia (NGHA)



Diabetes Forum (Sanofi KSA)



eReadiness : “The presence of Saudi Arabia, the UAE and Bahrain appearing in the top 21 rank is a feat,” according to the U.N. e-government survey

Study - Dr. Google in KSA :

Department of Clinical Pharmacy, College of Pharmacy, King Saud University, Saudi Arabia.

The utilization of Arabic online drug information among adults in Saudi Arabia



» **Google as a search engine** was the most frequently (86%) accessible website.

» (55%) claimed that **they only trusted half of the information cited**

» The **ease of retrieving online information** was the most common reason (69%) for consulting such websites.

» (54%) of respondents **did not depend on Arabic information websites !**



KSA eHealth – Future opportunities and challenges

KSA - ICT figures and forecasts



Mobile subscriber penetration is forecast to pass 220% by 2017



By the end of 2017, forecast a total market of over 64mn mobile customers



PC penetration is still relatively low but is expected to climb to about 35% by 2017



16 Million internet users, % 50+ of the KSA population



50 Million KSA tweets per month



KSA has the biggest IT market in the Gulf region

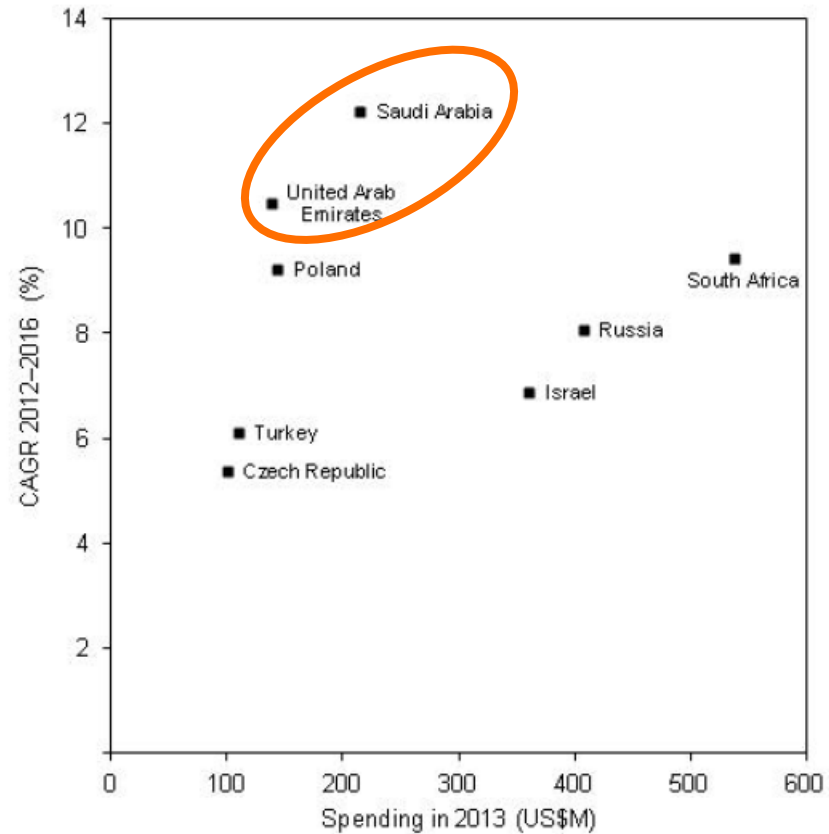


KSA - eHealth High Investments & High Expectations



KSA New Generation of ICT-empowered patients has high expectations for care, including their expectations for advanced technology-enabled health services

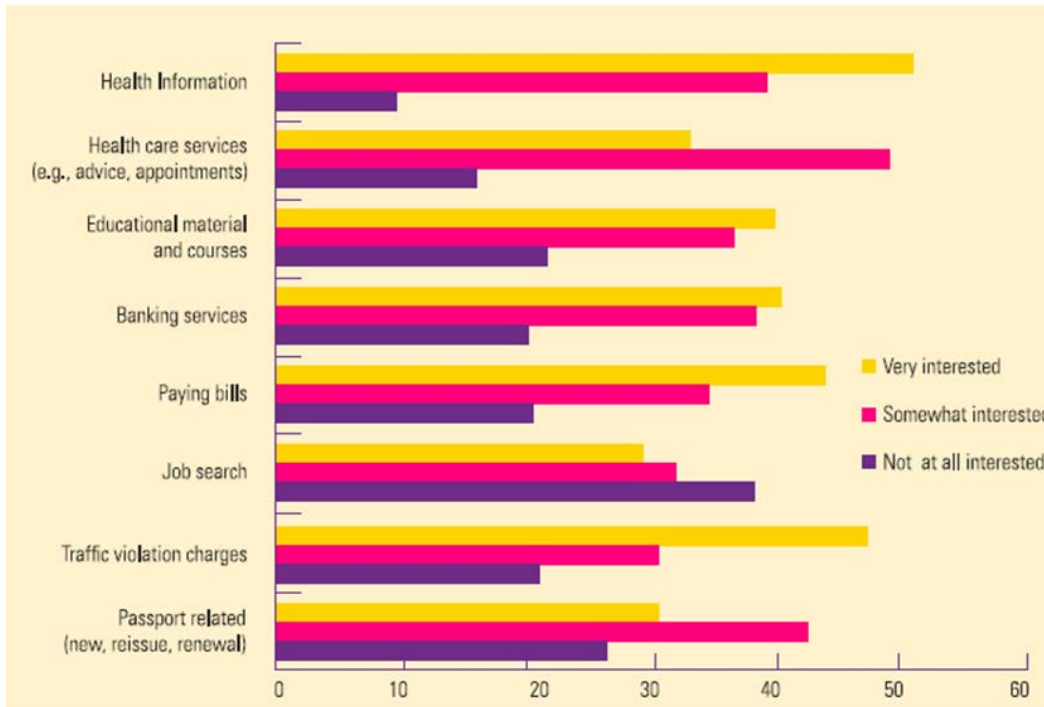
Healthcare IT Spending Forecast in Select CEMA Countries



Source: IDC, 2013

Increasing demand on Internet Health information and Services

Internet services of most interest (%)



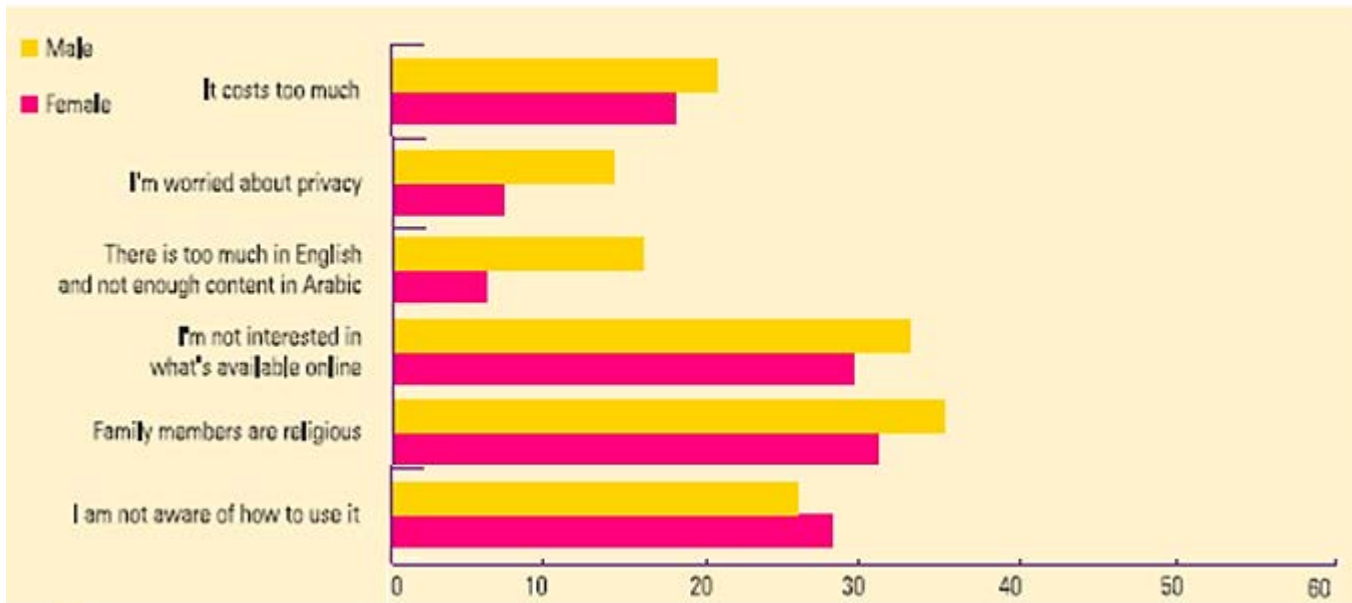
The report prepared by STC in cooperation with specialist international experts



health services were identified as being of great interest to a high proportion of KSA Internet users. There is also evidence of strong demand for *additional online services*, particularly for health

Barriers for internet usage and access

Barriers to Internet use, main factor by gender (%)



The report prepared by STC in cooperation with specialist international experts



Challenges for Health on the web : Privacy, cost, language, culture, skills ... these factors should be considered to bridge the potential digital divide



KSA eHealth Socio-economic Impact Measurement

"Reinventing Government"

"Government likes to begin things — to declare grand new programs and causes. But good beginnings are not the measure of success. What matters in the end is completion. Performance. Results."

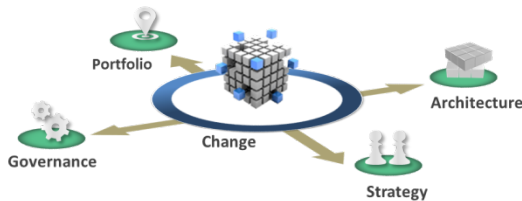
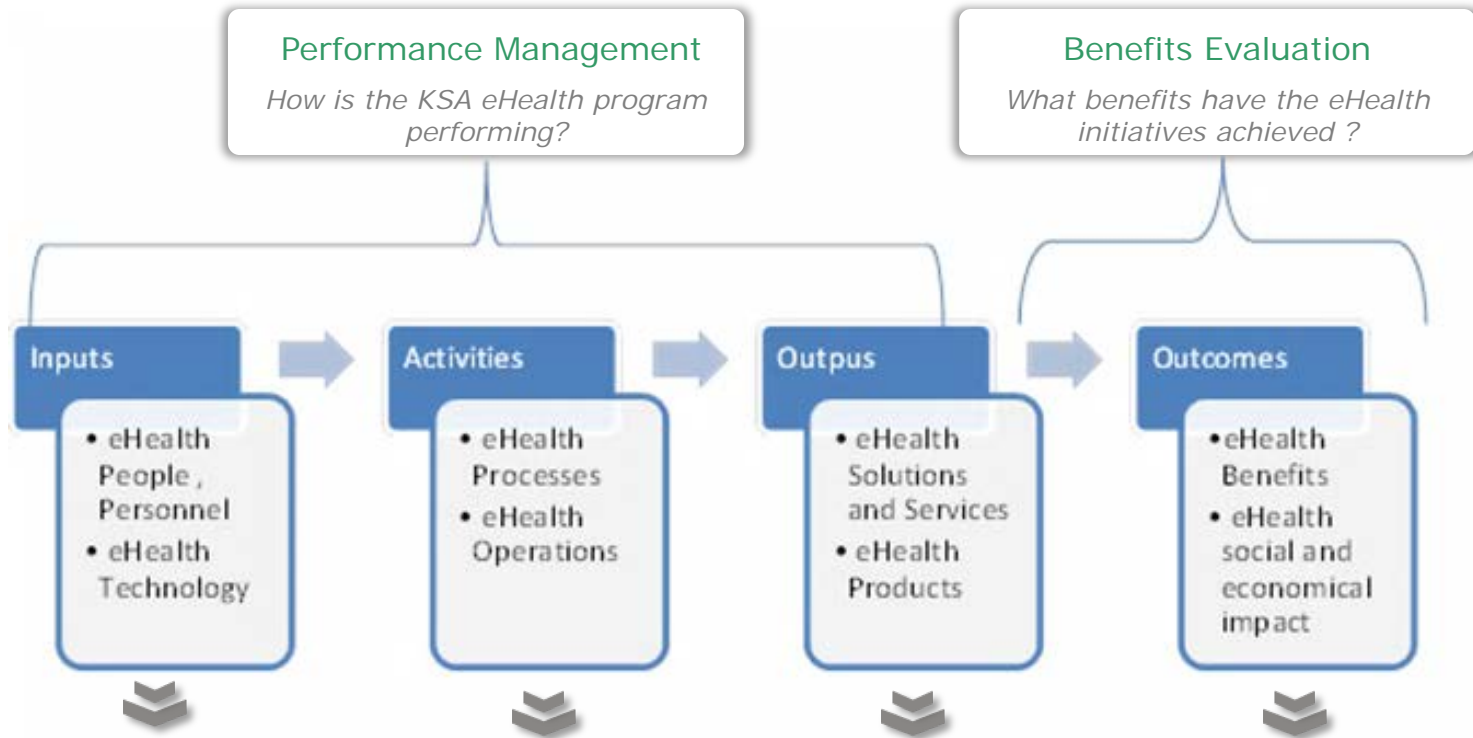
*President Bush,
The president's
Management Agenda*

Why Measuring impact :

- What gets measured gets done
- If you don't measure results, you can't tell success from failure
- If you can't see success, you can't reward it
- If you can't reward success, you're probably rewarding failure
- If you can't see success, you can't learn from it
- If you can't recognize failure, you can't correct it
- If you can demonstrate results, you can win public support

*Reinventing Government:
[David Osborne, Ted Gaebler]*

eHealth Value Chain - the pursuit of a blended value



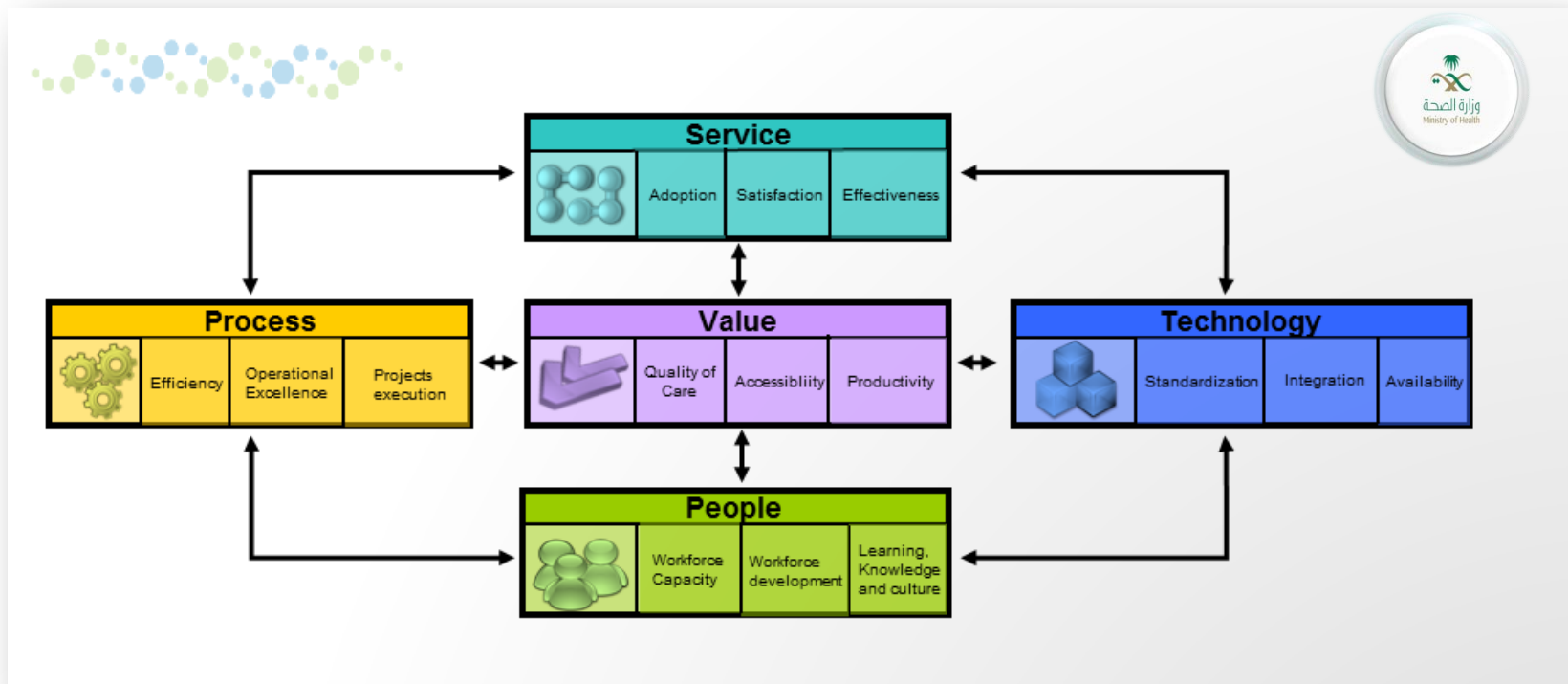
MOH eHealth Strategy and Change Management office defined a performance management and benefits evaluation framework **to define, quantify and track** the eHealth strategy performance in addition to social and financial benefits of the eHealth investments.

eHealth Scorecard - Blended Value concept



KSA – MOH eHealth scorecard

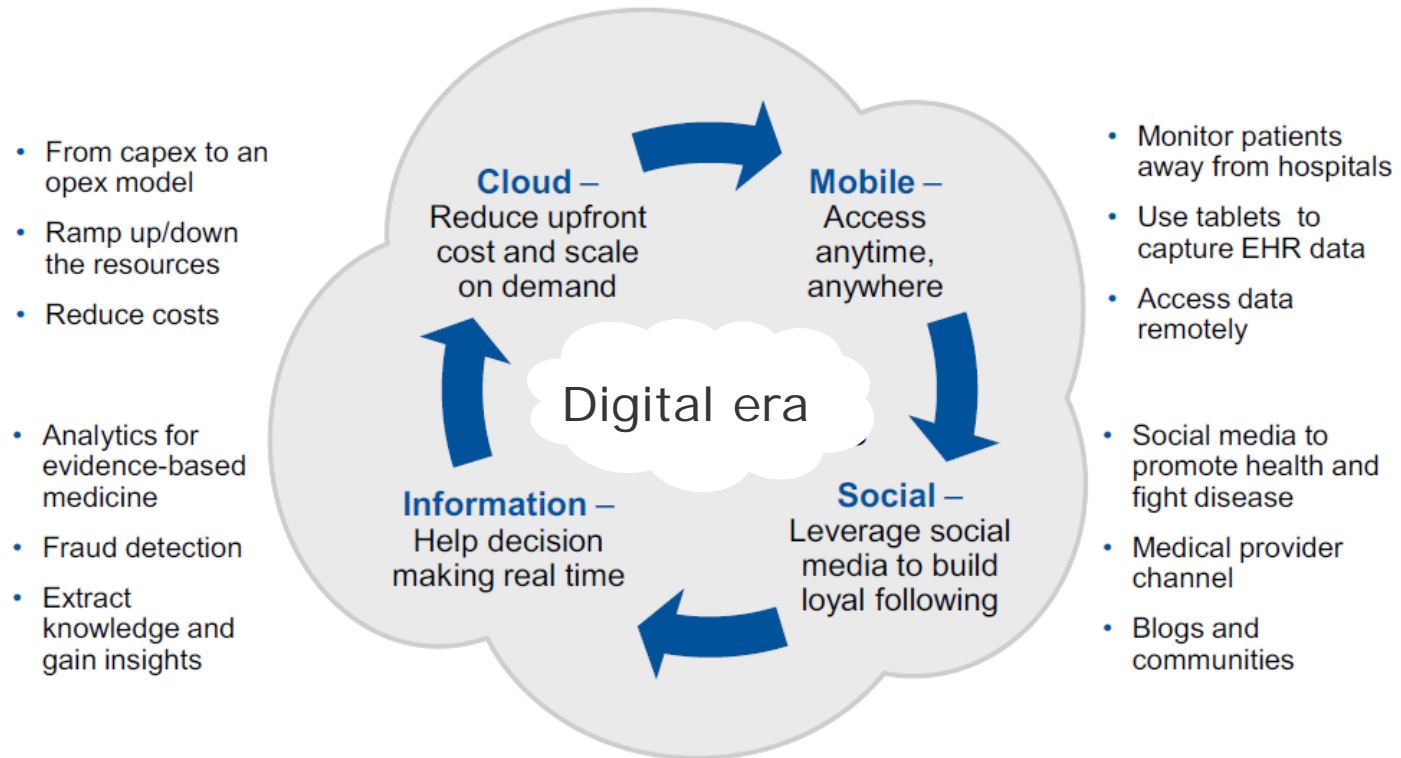
the value perspective reflects the **socioeconomic impact** of the eHealth and the benefits of widespread adoption of eHealth solution and services. These benefits contribute to realize the strategic vision. The dimensions covered include : Quality of Care , Accessibility, Productivity, Cost reduction, Care coordination...





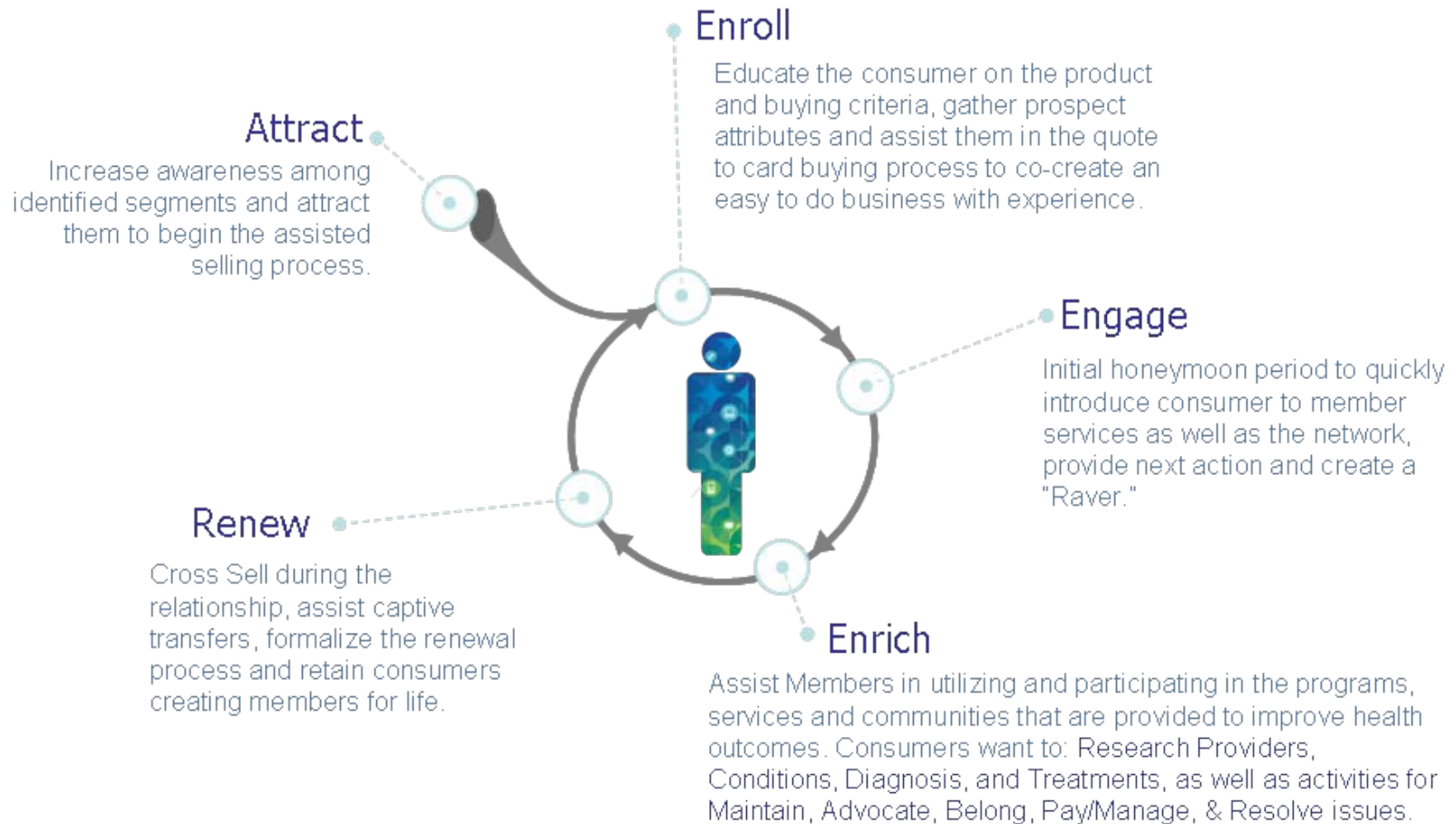
Conclusion and recommendations

Nexus of Forces for Digital Health



Source: Gartner (March 2013)

Need for a flexible consumer engagement lifecycle



Recommendations and future perspectives

Build a regional network observatory to study eHealth Impact

Study and share regional specific social eHealth challenges

Collaborate with universities for common eHealth research

Define a national consumer-centric engagement strategy

Benefit from social media expansion for next level of eHealth

Invest in most transformational technologies in healthcare

Develop advanced analytics capabilities for smarter health





*The words of PAHO/WHO
director,*
Dr Mirta Roses

“This will be the century of networks, connectivity and interdependency, which will make it possible for us to overcome the time and space barriers and open possibilities that were unimaginable to improve the life quality of our people.

If we promote these networks to exponentially multiply the available social capital in order to link people and institutions within a large mesh of support and inclusion for all the people of the continent, we will have taken a fundamental step towards eliciting knowledge and experience in new forms of exchanging technical cooperation for sustainable human development.”

Thank you