

DIGITALIZATION, A RISING HUMANISM IN MEDICINE

The Internet is revolutionizing the science of medicine.

In health, care and lifestyle sectors networked and wearable biosensors are being introduced; big health data hold up diagnostic decision making and provide intelligent choices for efficient therapeutics, concerning effectiveness of treatments; customised health interventions can be targeted both to personal needs and large populations.

A new ecosystem flourishes and enhances innovative processes.

A very proactive healthcare sector is actually overhauled by the creation of a new digital healthcare marketplace with new providers, institutions and health delivery mechanisms focused on the individual.

The result might be a rising humanism in medicine, empowering people and societies to be responsible, lessening the health cost burden. Nonetheless, if driven by massive vested interests of big players, it might lead to the dramatic enforcement of health inequalities, with also the risk of misinformation, quackery and health narcissism, to mention a few.



The GPI Group by its Research Centre promotes innovation applied in eHealth, eWelfare and well-being sector.

Here's the outline of the discussion developed in Session 4 within the Global Forum 2015, focus on analysing the "limits" to innovation in eHealth and well-being sector.

The exponential growth of available technologies and services (connections, infrastructures, etc.), albeit very promising, indeed definitely causes some issues. How to manage resources and costs? Are the organizations able to use technology advantageously? For whom is innovation? We need a global perspective to evaluate effects of innovation, particularly on human beings. Is technology "bio-compatible"?

The insight of taking limits into account has origin from the famous study "The Limits to Growth", DH Meadows et al.

Illustrations are a tribute to René Magritte who said: "If one looks at a thing with the intention of trying to discover what it means, one ends up no longer seeing the thing itself, but thinking of the question that has been raised".



<http://www.gpi.it>



<http://globalforum.items-int.com>

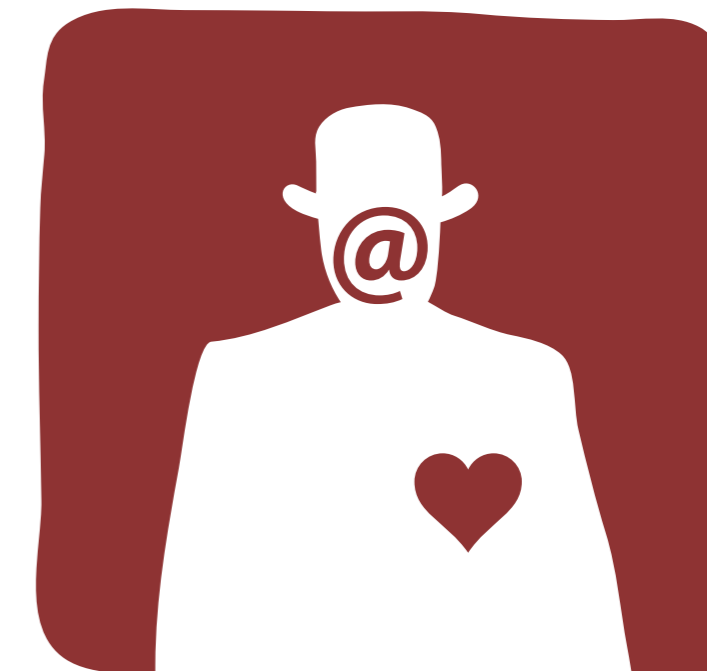
WITH THE CONTRIBUTION OF

Ingrid Andersson, Bruno lafelice, Sébastien Levy, Hesham Lotfy,
Jeremy Millard, Mario Po', Outi Rouru, Gérald Santucci,
Sylviane Toporkoff, Doina Zharavina.

CREDITS

Conception, contents and panel management by Giampaolo Armellin
Illustrations and graphic design by Shahab Shakib Passand
Planning and execution by Mariarosa Bonazzi

CONNECTED AND PERSONALIZED HEALTH IN THE INTERNET AGE



Technologies for an integrated healthcare system

Health services on the move

Governance, regulatory framework and industry



IS TECHNOLOGY EXCEEDING OUR HUMANITY?

Huge improvements in technology and the considerable benefits associated with the digitalization of human activities are compounded with major challenges of disruption and transformation.

- What about bio-compatibility of technology?
- Is technology compatible with human beings, with life, with behaviours?
- Are technologies really sustainable, not merely about resources and funding but about organizations and structures?
- Services are moving out of the hospital. What's the impact?
- Is this sustainable and bio-compatible?
- Is this transition a real innovation? Who benefits?
- What does innovation mean? Should that be a continuous growth?
- Is our approach really global? What limits do we have to consider?

“The real problem is not whether machines think but whether men do.”

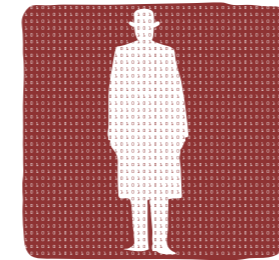
B.F. Skinner



WHO ARE YOU?

That is a major question. We have to be sure that digital information is properly owned, stored and made accessible only to the right users and for allowed purposes.

Carmelo Battaglia - Sales Director of SMEs Customers, InfoCert, Italy



A LEGAL ANALYSIS: DATA PROTECTION FOR DIGITAL(ISED) HUMAN BEINGS

Technology is rapidly changing the healthcare environment. We can analyse vast amounts of personal data: biometric, genetic, etc. This development has fundamental consequences for data protection. What legal means do we have to protect the privacy of the individual? And what means do we have to ensure the cyber security of that data, for example from being hacked and stolen? Medical records can be extremely valuable to cybercriminals.

Kim Westerlund - Chief Development Officer, Nixu, Finland



FROM MONITORING TO CARING

Innovate the processes by automation. Providing services for inpatient, outpatient and at home in a seamless way. Perhaps "telemedicine" is getting an old word. Better saying, that we develop accessible services to care people. And those services are accessible even from the management point of view.

Giuseppe Grassi - Director of Cardiology Division at ULSS 12 Veneziana, Italy



INFORMATION FLOWS

Many interconnected places. The physician, after having analysed the clinical data, defines the therapy. Then, by accessing the PHR, the therapy administration can be easily managed at home. This is strongly enabled by "human-based" ICT. Interactions amongst users and applications matter a lot.

Maritta Perälä-Heape - Director, Centre for Health and Technology (CHT) University of Oulu



TAILORED IS BETTER

Starting from digital images, how to define a physical model to craft a personalized prosthesis by a 3D printing innovative system. That enables the development of a partnership with the medical staff, which is the key factor to success.

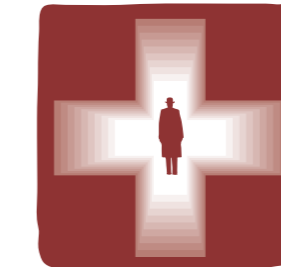
Andrea Sandi - Founder of Sintac



OPENING DATA AND BORDERS

Opening data is definitely a good practice to evaluate and improve quality and performance of healthcare services. Nevertheless, many issues still last when services require coordination and data exchange across borders. What can be done? Who is involved?

Michèle Thonnet - Official Representative of the French Ministry of Social Affairs and Health in the European & international e-Health Domain



KNOWLEDGE ON HEALTH

Properly communicate healthcare policies in order to effectively spread prevention and good practices to citizens, enables a universal health vision, that could be enhanced by welfare initiatives developed by private companies and institutions.

Madis Tiik - Senior advisor of the Finnish innovation Fund, Sitra

