UNIVERSITÀ DI TRENTO
Dipartimento di Sociologia e Ricerca Sociale

FONDAZIONE BRUNO KESSLER

AIS SOCIOLOGIA DELLA SALUTE E DELLA MEDICINA

STS italia

From Digitalisation to Artificial Intelligence: New Scenarios for Health and Medicine

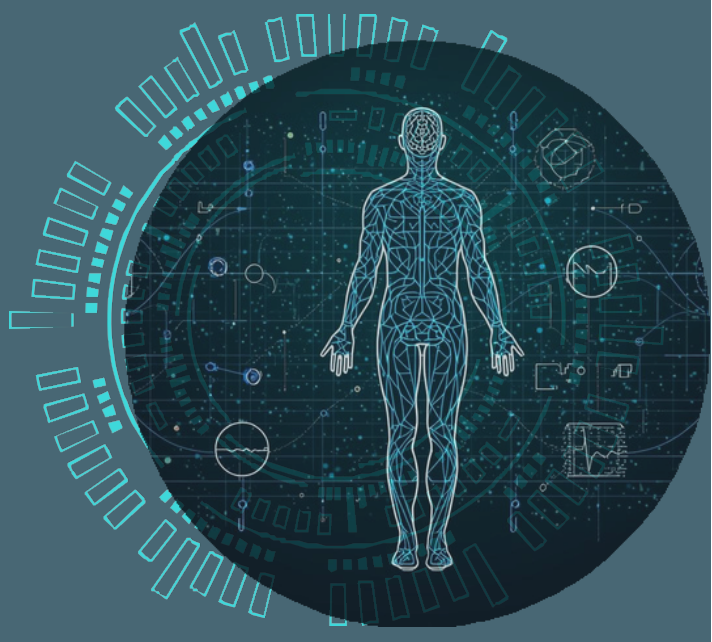
Joint Conference AIS – Sociology of Health and Medicine Section / STS Italia

12 February 2026 - 13 February 2026

Room 8-11-15

9 - 17

The conference, jointly organised by the Italian Sociological Association (AIS – Sociology of Health and Medicine Section) and the Italian Society for Science and Technology Studies (STS Italia), aims to foster dialogue between two scientific communities that, from complementary perspectives, contribute to the critical understanding of processes intertwining health, medicine, and technological innovation.



Institutional greetings

I would like to begin by expressing my sincere thanks to the colleagues from the two scientific associations—STS and AIS, Section of Sociology of Health and Medicine—who conceived and successfully organized this important opportunity for scientific exchange and dialogue.

My gratitude also extends to all those who accepted the invitation to participate, contributing to this shared endeavor by presenting to the scholarly community gathered here the results of their research and critical reflections.

During the recent preparation of a forthcoming volume marking the twentieth anniversary of the Section of Sociology of Health and Medicine, two exploratory initiatives were undertaken. The first aimed to map the research themes developed by members over the past decade; the second focused on identifying the current and prospective areas of scientific engagement of those affiliated with the Section who are not yet formally established within academia, often referred to as early-career scholars.

Both explorations highlighted the growing centrality of issues related to artificial intelligence in diagnostic and therapeutic pathways, in the everyday practices of patients and health professionals, and in the organization of work within healthcare institutions. This finding lends particular significance to the present conference. It underscores that our discussions are not driven solely by the interests of a limited group of scholars, but rather reflect research trajectories that are now widely recognized as central and unavoidable by those who, from a sociological perspective, engage with issues of health, care, and the ongoing transformation of healthcare systems.

The topics addressed in the conference program span, to a remarkable extent, the core concerns of our field of study: the role of artificial intelligence in clinical practice and its implications for social inclusion and exclusion; the significant potential of algorithmic systems, alongside the risks and distortions they may entail; questions of trust and professional and patient autonomy in the reconfiguration of the doctor–patient relationship; the renewed salience of key social variables—gender among them—in both professional practice and patient experience; issues related to the collection, protection, and use of health data; and, finally, the transformation of the subjective experiences of patients and health professionals across diagnostic, therapeutic, and care trajectories, in both acute and chronic conditions.

In closing, it is clear that substantial work lies ahead for all of us. To borrow an evocative metaphor from the title of one of the forthcoming contributions, our scholarly communities come together on this occasion because we are sailing the ship while building it.

I wish you all a productive and rewarding conference.

Anna Rosa Favretto
Coordinator of the Scientific Committee of the "Sociology of Health and Medicine" Section of the Italian Sociological Association

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It is my great pleasure, on behalf of STS Italia, to welcome you all to this conference, jointly organised with the Health and Medicine Section of the Italian Sociological Association (AIS) and made possible through the collaboration of the Fondazione Bruno Kessler and the Department of Sociology and Social Research at the University of Trento.

This gathering represents the second stage in a shared journey of reflection that commenced in 2018, in a profoundly different context, when the digitalisation of health and related emerging medical technologies were still largely matters of experimentation and forward-looking discourse.

In 2026, we find ourselves confronting significant discontinuities. The pandemic has decisively accelerated processes that were already underway, rendering algorithmic technologies, health data infrastructures, and novel forms of technological governance central to healthcare systems. Concurrently, the rapid diffusion of artificial intelligence and advanced practices of datafication have transformed, and are expected to further transform, not only diagnostic and care practices but also the boundaries between research, public policy, and the market. This extends to the matter of responsibilities for the actors involved in designing technologies and implementing protocols. We face a scenario that is far from stabilised and continues to evolve rapidly, generating new social, political, and ethical tensions.

It is precisely in light of these transformations that, in this edition, the two Italian scientific communities promoting the conference have deliberately chosen to open up to an international context, expanding the dialogue beyond national boundaries. The response has been exceedingly positive, as clearly reflected in the conference programme: the participation of scholars from diverse countries and the variety of theoretical, methodological, and empirical perspectives testify to the relevance and timeliness of the issues addressed.

Within this framework, the dialogue between Science and Technology Studies and the sociology of health and medicine proves to be not only fruitful but essential for understanding the processes through which health, illness, and technology are co-constructed in increasingly interconnected contexts.

I would like to express my gratitude to the colleagues who contributed to organising the conference and to all those who participated by submitting their work. On behalf of the STS Italia board, I wish you all two days of stimulating discussion and productive exchange.

Paolo Giardullo
Vice-president of the Board of Directors of STS Italia - The Italian Society for Social Studies of Science and Technology

Program at glance

Thursday, February 12

09:00 – 10:00	**Registration**
10:00 – 10:15	**Welcome Remarks** (room 8)
10:15 – 10:30	**Introduction to the Two-Day Program** (room 8)
10:30 – 12:30	**Parallel sessions (1A** – room 8 **/ 1B** – room 11 **/ 1C** – room 15**)**
12:30 – 14:00	**Lunch Break**
14:00 – 15:30	**Round Table** (room 8)
15:30 – 16:00	**Coffee Break**
16:00 – 18:00	**Parallel sessions (2A** – room 8 **/ 2B** – room 11**)**
20:00	**Conference Dinner at "Trattoria Piedicastello"**

Friday, February 13

10:00 – 12:00	**Parallel sessions (3A** – room 8 **/ 3B** – room 11**)**
12:00 – 12:30	**Closing Remarks / Conclusion of Works** (room 8)

Parallel sessions

Day 1 – 12th February 2026

Parallel session 1 (10.30-12.30)

1A "Automation and AI in clinical practice" – Room 8
1B "Ethics and risk in AI-mediated care" – Room 11
1C "Governing healthcare AI: standards, regulation and policies" – Room 15

Parallel session 2 (16.00-18.00)

2A "Healthcare professions and AI: trust, autonomy, and transforming clinical work" – Room 8
2B "Governing healthcare AI: standards, regulation and policies" – Room 11

Day 2 – 13th February 2026

Parallel session 3 (10.00-12.00)

3A "Patienthood in the age of AI: lived experience, ageing and algorithmic health" – Room 8
3B "Healthcare professions and AI: trust, autonomy, and transforming clinical work" – Room 11

Parallel session 1 – 12th February 2026, 10.30-12.30

1A "Automation and AI in clinical practice"

Chairs: Veronica Moretti, Francesco Miele

Can a chatbot be a psychologist? AI, empathy, and the limits of automation

Noemi Crescentini (University of Naples Federico II), Giulia Banfi (University of Ferrara)

The integration of artificial intelligence (AI) technologies within healthcare settings is having a profound impact on established practices, care relationships and professional dynamics.

The field of mental health, founded on profoundly embedded hermeneutic and relational processes, offers a privileged vantage point from which to observe these transformations. It accentuates the discord between the computational and algorithmic logic of AI and the interpretative and empathetic nature of therapeutic work.

Adopting a theoretical framework informed by Science and Technology Studies, this study conceptualises AI not merely as a neutral instrument, but rather as a socio-technical artefact that collectively produces particular epistemic regimes, professional identities and forms of subjectivation (Jasanoff, 2004; Latour, 2005; Mol, 2008).

The research explores how Italian psychologists perceive, interpret and negotiate the introduction of AI in their professional field. To this end, the investigation will examine adaptation strategies, resistance and emerging reconfigurations of their role and expertise.

The approach adopted is qualitative, based on semi-structured interviews (conducted between May and June 2025) and thematic analysis. The data reveal an ambivalent position towards AI. On the one hand, it is generally accepted as a support technology, useful for administrative tasks, monitoring therapeutic progress and systematising clinical data. Conversely, it is actively delimited and excluded from the therapeutic core, which is regarded as irreplaceable and founded upon empathic relationships, situated listening, and the collaborative production of meaning. This distinction can be considered a form of boundary work (Gieryn, 1983) aimed at preserving the specificity and autonomy of professional expertise against processes of algorithmic standardisation.

However, the study also reveals that AI integration challenges the traditional boundaries of therapeutic practice. The constant availability of chatbots blurs the temporal and spatial limits that have long structured psychological care. At the same time, these developments raise pressing governance issues regarding liability, responsibility, and ethical use. Recent policy shifts, such as OpenAI's decision to clarify that ChatGPT should not be used for medical advice without professional oversight, reflect an evolving landscape in which institutions and companies seek to redefine the limits of AI use following cases of excessive user reliance on conversational agents.

These findings contribute to the broader sociological and STS debates on how digital and algorithmic systems reconfigure healthcare professions and care infrastructures. By examining how psychologists negotiate the introduction of AI in therapy, the study highlights the emergence of new moral and organisational frontiers in digital care, emphasising the need for critical governance frameworks that sustain the relational, interpretative, and ethical dimensions of health work in a society on the path toward automation.

Co-designing an inclusive digital health technology for and with COPD patients living in low SEP

Renate Baumgartner (Vrije Universitat Amsterdam)

Digital health technologies (DHTs), such as wearables and mobile applications, are often presented as promising ways for integrating AI into healthcare. Yet, their development raises critical questions about responsibility and inclusion, particularly when intended for patients from vulnerable groups, such as those living in low socio-economic position (LSEP). While wearables are frequently framed as empowering tools, they risk exacerbating inequalities for individuals with limited digital or health literacy. This case study will show how we can try to ensure that those who might benefit most from these technologies are not left behind but included in the design process and how this process can be reflexively monitored.

Historically, DHTs have been shaped predominantly by technological actors. In contrast, participatory approaches such as participatory design are now considered the gold standard for inclusive innovation. These methods involve multiple stakeholders, including patients, across iterative phases of observation, ideation, and prototyping. However, even participatory processes face challenges: marginalized groups often remain underrepresented because their needs are harder to accommodate than those of tech-savvy participants.

This presentation draws on the development process of a wearable for people with chronic obstructive pulmonary disease (COPD) within the DACIL project. COPD patients living in a low socio-economic position also often have low digital and health literacy and thus, are particularly vulnerable to poor health outcomes. DACIL aims to create a wearable that monitors disease progression and provides personalized lifestyle advice, explicitly targeting these users. The project brings together an interdisciplinary team from medicine, computer science, health sciences, behavioral sciences, and science and technology studies, alongside technology partners and patient representatives. Beyond design thinking, the process incorporates reflexive monitoring in action, ensuring continuous reflection on goals, expectations, and patient perspectives throughout development.

By analysing this case, we explore how participatory and reflexive practices can address socio-technical challenges in designing AI-driven health technologies for marginalized populations.

Navigating risk in dementia care: AI, in-between modes of reasoning, and sense-making practices

Martina Consoloni (University of Bologna), Veronica Moretti (University of Bologna)

The spread of digital and artificial intelligence (AI)-based technologies in healthcare raises key questions about how these tools redefine relationships, responsibilities, and daily practices, especially in cases where vulnerability is structural, such as the care of people with dementia. Although the promises associated with these technologies evoke efficiency, safety, and a lighter care burden, the daily use of devices such as GPS trackers, video monitoring systems, or smart medication dispensers reveals a much more ambivalent reality, characterized by malfunctions, uncertainties, and continuous operational and emotional negotiations. To grasp this complexity, it is necessary to consider technologies not as objective tools, but as performative actors situated in specific social, epistemic, and material contexts.

Based on the results of the ANTICIPATE project – Artificial Intelligence and Dementia Care in Practice (PRIN PNRR) carried out by the University of Trieste and the University of Bologna, this paper analyzes the ways in which informal caregivers simultaneously navigate the risks associated with the progression of the disease and those arising from relying on technologies that promise support but often generate new areas of vulnerability. The study is based on the theoretical framework of Zinn (2016), which distinguishes between rational, non-rational, and 'in-between' strategies, based on trust, intuition, and emotion. Through eleven qualitative interviews conducted in Italy between 2024 and 2025 with family caregivers of people with dementia, we investigate how caregivers mobilize these strategies to deal with unexpected situations and make the use of technologies sustainable in their daily lives.

The analysis shows that uncertainty is managed through situated and relational work, in which "intermediate" strategies emerge as practical logics that guide action. In particular, trust plays a crucial role when technical knowledge is limited or devices do not work properly: caregivers do not rely on technology as such, but on human figures considered competent, who mediate the adoption and maintenance of devices. Intuition, rooted in forms of tacit and embodied knowledge, guides the practical micro-solutions that allow the tools to 'work' beyond their formal instructions. Emotions, including hope, anxiety, and frustration, operate as regulatory resources that guide action, helping to transform difficulties into an active effort to reorganize and search for meaning. These three dimensions appear inseparable in care work: they describe not only reasoning strategies, but also forms of practical guidance that make the uncertainty that permeates life with dementia conceivable and sustainable.

The results emphasize that the effectiveness of digital tools is not rooted in their technical design, but in the caregiver's ability to integrate and adapt them within relational and material infrastructures that are constantly being negotiated. Finally, the contribution highlights the often invisible affective and relational work that supports such technologies in vulnerable domestic contexts, offering a critical reading of narratives about the neutrality and efficiency of digital innovation.

Negotiating knowledge in dementia care: AI-based technologies, night monitoring and epistemic tensions

Ludovica Rubini (University of Trieste), Francesco Miele (University of Trieste), Carmen Pellegrinelli (University of Trieste)

In recent years, Western healthcare systems have faced declining public expenditure, increasing shortages of social and healthcare personnel, and a rising prevalence of chronic conditions, including dementia. Dementia is a condition marked by behavioural and cognitive decline, affecting an increasing number of older people who often need professional care. As a result, care facilities accommodate more residents with dementia, posing new challenges for organisational practices and care models. In this context, artificial intelligence (AI) technologies are often seen as innovative ways to improve both accessibility and quality of care—although they also raise concerns about their impact on human labour and the risk of gradual workforce replacement.

Drawing on the research project ANTICIPATE - Artificial Intelligence and Dementia Care in Practice, this contribution provides insights from an organisational ethnography carried out in the dementia unit of a care facility in northeastern Italy. The study involved 72 hours of participant observation during night shifts and ten interviews with care workers and managers, from May to November 2024. The unit was chosen because of Kiri, an AI-based telemonitoring system designed to prevent falls, aggressive episodes, and anxiety crises. Kiri uses optical sensors positioned above beds to detect risks and send alerts to night-shift staff. Alert settings are customised by the unit manager based on workers' situated knowledge of residents' health status, cognitive decline, and behavioural habits. The system also produces sleep-related data, supporting decision-making and acting as a "second operator" during understaffed night shifts.

Building on organisational studies that view knowing and learning as distributed, dynamic, and ongoing processes, our analysis examines how knowledge is continually inscribed and negotiated within technologically dense care settings. We focus on:

1) The emergence of a fragmented knowledge configuration, in which the health patient's status representation is inscribed in numeric data and alarms, as well as in oral and written accounts. These inscription practices generate various material and discursive artifacts, dispersed in organisational spaces and waiting to be mobilised.

2) The enactment of knowing processes that unfold during nighttime monitoring, in which the fragmented knowledge configuration distributed in inscriptions is activated and put into practice. In particular, we will focus on tensions between datafied knowledge embedded in actions performed by professionals, along with Kiri (e.g., receiving alarms and reading the analytics) and codified knowledge incorporated in pre-existing organisational routines (e.g., using senses to assess the patient's health status and constructing narratives about diseases' progression).

3) The emergence of a configuration of practices in which monitoring activities become entangled with caregiving ones. Within these interconnections, epistemic tensions are temporarily resolved, allowing care work to proceed. This movement between monitoring and caregiving is always precarious and not necessarily linear: during caregiving, hierarchies between humans and non-humans are often renegotiated, as are the emergent representations of patients' health.

By revealing how AI reshapes the textures of knowing, sensing, and acting in dementia care, this contribution offers an innovative lens for understanding how intelligent technologies are transforming the very practice of care.

Seeing with AI: uncertainties in mammography screening

Dorthe Kristensen (Syddansk Universitet), Minna Ruckenstein (University of Helsinki)

As healthcare faces systemic shortages, policymakers are promoting AI as a tool promising improved detection and patient outcomes, and reduced workload. Yet empirical findings reveal a complex landscape of professional practices, with AI introducing not only technical benefits but also significant uncertainties. This paper draws on theories of uncertainty, relational expertise, and response-ability to analyse how hospital managers and radiologists respond to and negotiate these uncertainties. Fieldwork in five Danish hospitals demonstrate how managerial decisions, shaped by political and economic pressures, overlook the tacit and embodied knowledge in radiological judgment. Radiologists' experiences reflect concerns about loss of core diagnostic capacities, overdiagnosis, and accountability, exacerbated by AI's opacity and the shift from decision-making to quality coordination roles. The study calls for a need to establish 'breathing space' to reflect on AI futures that preserve the integrity of radiologists' profession, without being constrained by the accelerating pace and pressure of ongoing change. Breathing space enables critical examination of AI tools' implications, and consideration of alternative modes of interaction. The study advocates policies that recognise AI as a socio-technical arrangement that requires careful domestication and an increased understanding of the socio-political and embodied dimensions of AI-mediated healthcare.

1B "Ethics and risk in AI-mediated care"

Chairs: Enrico Maria Piras, Paolo Giardullo

Can we give informed consent to AI-induced medical interventions?

Yuval Poliak (University of Haifa)

"People outside the field are often surprised and alarmed to learn that we do not understand how our own AI creations work … When a generative AI system does something, like summarize a financial document, we have no idea, at a specific or precise level, why it makes the choices it does — why it chooses certain words over others, or why it occasionally makes a mistake despite usually being accurate," writes the CEO of the AI company Anthropic. (Amodei 2025). A central tenet of the potential of Artificial Intelligence (AI) resides in its transformative application within the medical sphere. It is hypothesized that AI could potentially surpass human clinicians in the delivery of specific treatments and the accuracy of diagnostics. Moreover, AI is anticipated to significantly mitigate the operational burden and strain on the overall healthcare infrastructure.

But if we take what Anthropic's CEO wrote seriously, then we are ignorant as to how every A.I induced intervention works. So we need to ask the question, how does a patient give valid consent to any medical intervention that uses A.I? Should we, for their own beneficence, give patients treatments that they can't consent to? Or should we respect the patient's autonomy and avoid using any A.I induced medical intervention altogether until we know (and if we ever know) how A.I works?

Because we are ignorant as to how A.I works, we cannot give informed consent to any of its medical procedures based on knowledge. However, it does not mean we cannot give informed consent for A.I induced medical intervention at all. Keren and Lev argue that it is possible to give informed consent while being ignorant. (Keren, Lev 2022)

They distinguish between two different kinds of ignorance: The first kind of ignorance is error. When a patient is in error he is wrong about the information of the medical procedure, making him unable to give valid consent. The other kind of ignorance is suspending-ignorance. When a patient is in suspending-ignorance, he holds no belief towards the information of the medical procedure whatsoever; not a true one and not a wrong one. As rational agents we can consent to stay in a suspending-ignorance and therefore knowing what we are ignorant about. In that sense we can give valid consent. In this lecture I will argue that we can give informed consent to A.I induced medical interventions in the form of suspending-ignorance.

References

Amodei, Dario. 2025. "The Urgency of Interpretability." Dario Amodei. https://www.darioamodei.com/post/the-urgency-of-interpretability.

Keren, Arnon and Lev Or. 2022. "Informed Consent, Error and Suspending Ignorance: Providing Knowledge or Preventing Error?." Ethical theory and moral practice 25 (2): 351-368.

Data altruism and data spaces in healthcare: secure, privacy-preserving, and compliant digital infrastructures for improved healthcare services powered by trustworthy AI techniques

Silvio Ranise (Bruno Kessler Foundation / University of Trento)

Data altruism is an ethical and voluntary mechanism where patients can share their health data–under the proviso of adequate security and privacy guarantees–with recognized organizations for non-profit scientific research or public interest purposes. In the European Union, the concept has been

formally introduced in the Data Governance Act (DGA) with the ultimate goal, for the health sector, of improving personalised treatments, providing better healthcare, and helping cure rare or chronic diseases while paving the way to substantial economic savings. To achieve such an ambitious goal with a substantial positive impact on European society, data altruism must be supported by a rigorous, transparent, and easy-to-use consent management framework implemented on top of a trustworthy digital infrastructure that does not violate fundamental rights and freedoms, particularly the right to healthcare and data protection. In turn, designing, deploying, and operating this type of infrastructure presents significant security, privacy, and compliance challenges that are deeply connected to the socio-technical nature of the mechanism. During the presentation, we discuss some of the challenges including
* data altruism requires dynamic consent management; if a patient revokes consent for research, the data must be immediately removed from future training datasets and access revoked retroactively. This demands high-assurance digital identity solutions together with immutable and non-repudiable access logs. The logs must prove incontrovertibly when consent was revoked by a certain patient and guarantee that no subsequent automatic or human process accessed that patient's record. An error in this process constitutes a dual violation of privacy—according to the General Data Protection Regulation (GDPR), it is a failure to respect the right of revocation—and of security—according to the revised Network and Infrastructure Security Directive (NIS2), it is a lack of integrity in the log management system;
* the development of highly accurate Artificial Intelligence (AI) algorithms in the healthcare domain potentially conflicts with privacy as the patients' data used to train such algorithms must be, at the same time, highly precise–to have maximum predictive value—and sufficiently anonymized to preserve privacy and comply with the GDPR's data minimization obligation. Indeed, moving large quantities (in the order of petabytes) of sensitive health data to external, third party platforms or services (e.g., in the cloud) carries an unacceptable risk of re-identification (i.e. a confidentiality risk with respect to the GDPR) and massive data exfiltration (i.e. a supply-chain security risk in terms of the NIS2).
We discuss addressing challenges related to risk management and operational resilience, aligning with GDPR and NIS2 requirements. We elaborate on a proposal to support the data altruism mechanism within the European Health Data Space (EHDS), part of the Common European Data Spaces initiative for a secure, interoperable data ecosystem across sectors and member states. We propose that combining data altruism and EHDS fosters AI development in healthcare that better balances effectiveness and trustworthiness, substantially contributing to ethical AI use consistent with European societal values.

Imagining risk in AI-based neuroprosthetics: sociotechnical futures of care in Parkinson's disease

Barbara Morsello (University of Padova), Federico Neresini (University of Padova)

As artificial intelligence becomes increasingly embedded in healthcare, new expectations emerge regarding its capacity to transform clinical practice, governance, and patient experience. This paper examines these dynamics through a case study of emerging Intelligent Neuroprostheses (INPs) for Parkinson's disease and how they are reshaping visions of the future of care.
Drawing on 21 qualitative interviews conducted within the Horizon 2020 SYNCH project, we investigate how clinicians, neuroscientists, engineers, and patients negotiate risk and uncertainty surrounding Deep Brain Stimulation (DBS) a key precedent of machine-learning–based adaptive neuroprostheses, and how these negotiations are shaped by divergent sociotechnical imaginaries of intelligent care.
Building on research in Science and Technology Studies and the Sociology of Health and Medicine, we conceptualise risk not as a purely clinical or technical property of INPs but as a sociotechnical phenomenon embedded within divergent imaginaries of what AI-driven neuroprosthetics are expected to do, whom they are meant to benefit, and which futures they may herald.
We found that these imaginaries are informed by: 1) clinical experiences with deep brain stimulation and different ideas of the brain; 2) research narratives surrounding personalisation and adaptive neuromodulation, which mobilise dichotomies between the natural and the artificial; and 3) broader cultural expectations related to media and sci-fi representations of AI and neurotechnology as drivers of efficient and responsive healthcare, but which also fuel concerns about depersonalisation and the possibility of becoming "cyborg" with consequences for human identity.
While some frame INPs as offering unprecedented precision and personalised treatment, others emphasise concerns related to algorithmic opacity, loss of human identity, and changes in the therapeutic relationship.
Our findings highlight how imaginaries of INPs shape how different stakeholders anticipate the promises and vulnerabilities of INPs, influencing decisions about adoption and regulation even before widespread implementation occurs, having pratical consequences on its future application. The imaginaries mobilized by the different stakeholders, contribute to configuring technological trajectories, influencing not only design and implementation but also clinical practices, patient experiences, concerns and hopes. Importantly, these imaginaries also illuminate emerging inequalities and barriers to access, particularly as AI-driven systems become entangled with shifting policy environments, professional cultures, and sci-fi narratives.
By disentangling how actors envision risks and futures of INPs, this paper contributes to interdisciplinary discussions on the governance of AI in healthcare, demonstrating how sociotechnical imaginaries shape the ongoing transformation of medicine in the digital age. Ultimately, understanding how risk is imagined across different stakeholders offers critical insight into how futures of AI-mediated care are being constructed long before these technologies enter routine clinical use.

Between code and care: the sociologist's role in interdisciplinary AI for health

Riccardo Pronzato (IULM University), Veronica Moretti (University of Bologna)

In recent years, interventions for healthcare purposes based on algorithmic and AI systems have grown dramatically (Miele and Giardullo, 2024). These projects are frequently the outcome of interdisciplinary collaborations involving various figures from research institutions, corporate environments and NGOs, each coming from a diverse background and bringing a potentially different agenda (Ruckenstein, 2025). Within this context, co-design has emerged as an institutionalised participatory approach to engage diverse stakeholders in producing health-related technologies and adapting them to users' needs and conditions (Noorbergen et al., 2021; Pronzato, 2025). Yet, technological production is never a linear or frictionless process. It always unfolds within heterogeneous socio-technical assemblages in which different human and non-human elements are involved (Schwennesen, 2019). Furthermore, within complex organisations, as well as small working groups, "AI frictions" – i.e., different perspectives on the role, tasks and functioning of AI – frequently shape the relationships between the various figures involved in technological production (Kaun and Männiste, 2025).
Given this framework, this paper aims to discuss the epistemic and political role of sociologists embedded within such hybrid teams developing algorithmic and AI-based systems in healthcare. Specifically, we draw on a case-study, i.e., the co-design process of an AI-powered e-learning chatbot aimed at supporting dementia caregivers (project AGE-IT, PNRR PE8 "Age-It", Next Generation EU), in order to examine how sociological expertise contributes to the articulation of the social, ethical, and cultural dimensions of technological systems in health contexts.
Anchored in science and technology studies (STS), medical sociology and critical algorithm studies, our analysis conceptualizes AI-based systems as socio-technical assemblages enacted through the situated practices and negotiations of heterogeneous actors. Building on Mol's (2002) notion of ontological multiplicity, Suchman's (2023) idea of friction, and Seaver's (2017) view of algorithms as culturally enacted artefacts, we argue that sociologists can play a pivotal role as mediators of meaning and values. Indeed, their activities can enable translation across epistemic communities, question implicit assumptions embedded in data and design processes, and render visible the forms of hidden labour and power relationships that sustain AI infrastructures. In this sense, the sociologist's contribution is not merely ancillary or evaluative, but constitutive: it redefines what counts as knowledge, care, and responsibility within AI-driven healthcare innovation. Simultaneously, we will highlight the challenges that can be encountered within interdisciplinary teams and propose strategies for addressing them.

Privacy and Data Protection Public Policy in Menstrual Tracking Apps: A Study on Implementation Mechanisms and Users' Rights in Brazil

Gabrielle Canalli (University of Twente / University Federal of Paraná), Noela Invernizzi (University Federal of Paraná)

Menstrual tracking apps aim to make users' lives easier by providing a digital version of the Ogino-Knaus method, a contraceptive method that can be used to track the menstrual cycle. Even though users have different reasons for using menstrual tracking apps, they all have one thing in common: they provide sensitive personal data to be treated by the platforms. In Brazil, Law 13.709/2018 – Brazilian General Data Protection Law (GDPR) – addresses the processing of personal data in a broad and principled manner, with the National Data Protection Authority (ANPD) responsible for proposing regulatory and

supervisory mechanisms. However, there are still no specific rules on digital health services, which is concerning because they involve sensitive personal data. The situation is further aggravated by the issue of women's rights, which are underrepresented in the Brazilian legal system. In view of this, this research aims to investigate how the implementation of the Public Policy on Privacy and Data Protection in Brazil guides digital health services for women, using menstrual tracking apps as a case study. The specific objectives are: (a) to analyze the mechanisms for implementing the Public Policy on Privacy and Data Protection in Brazil; (b) to characterize the functioning and stated objectives of digital women's health services, especially menstrual tracking apps; and (c) to interpret, based on the Terms of Use and Privacy Policies, how providers of digital women's health services, especially menstrual tracking, have been guided in light of the Brazilian Public Policy on Privacy and Data Protection. To this end, we use a literature review on the treatment of personal data and women's rights, in addition we use a document review of the brazilian GDPR itself, the Terms of Use, and the Privacy Policies of the apps, to then make use of case studies of the menstrual tracking apps Clue and Flo. At the end of this research, it is expected to demonstrate that the mechanisms for implementing the Public Policy on Privacy and Data Protection in Brazil have little influence on the regulation of data processing by menstrual tracking apps. Thus, it is considered that the mechanisms for implementing the Public Policy on Privacy and Data Protection are not sufficient to guide the regulation of menstrual tracking apps that continue to perpetuate the logic of surveillance capitalism, in addition to reiterating the underrepresentation of women's rights in Brazil.

1C “Governing healthcare AI: Standards, regulation and policies”

Chairs: Barbara Sena, Flavia Atzori

Digital social determinants of health: inequality and the algorithmic reproduction of vulnerability in AI-driven healthcare

Davide Costa (University Magna Graecia of Catanzaro), Raffaele Serra (University Magna Graecia of Catanzaro)

The diffusion of artificial intelligence (AI) in healthcare is often accompanied by promises of precision, efficiency, and equity. Yet, as healthcare systems become increasingly data-driven, new forms of inequality emerge from the very infrastructures that aim to improve care. This work examines how AI technologies interact with the social determinants of health—income, education, gender, race, and geography—through what we term digital social determinants of health (DSDH): the structural conditions embedded in data infrastructures, algorithms, and digital access that mediate how individuals experience and benefit from healthcare innovation.

Building on the perspectives of Science and Technology Studies (STS) and the Sociology of Health and Medicine, the study conceptualises DSDH as a socio-technical layer that links traditional inequalities to the digital architecture of healthcare. Thus, this work investigates how data collection practices, algorithmic training, and institutional governance reproduce pre-existing disparities in access, representation, and outcomes. In doing so, it highlights how digital infrastructures materialise specific epistemic and moral orders—deciding which bodies, pathologies, and populations are visible to AI, and which remain unseen.

Empirical findings reveal that algorithmic bias and uneven data governance act as structural amplifiers of social vulnerability: datasets that underrepresent marginalised groups lead to diagnostic inaccuracies, while digital divides limit the capacity of patients to participate in new forms of telemedicine and self-monitoring. Professionals, in turn, are often positioned within ambiguous accountability regimes, balancing between technological promise and ethical responsibility.

By articulating the concept of digital social determinants of health, this work contributes to a critical understanding of how technological innovation co-produces inequality and reconfigures notions of justice and responsibility in healthcare. Rather than framing inequity as an unintended side effect, it argues that the digitalisation of health actively participates in the social production of difference. The paper concludes by calling for sociotechnical approaches to AI governance that address inequality not only at the level of policy, but within the design logics and everyday practices of digital healthcare.

Making AI explainable: the politics of algorithmic (in)visibility in biomedicine

Lorenzo Beltrame (University of Trento), Fabio Gasparini (University of Padova)

“The clinician is confronted with a prediction and… in order to use it without blindly trusting the machine, they need to understand why the algorithm produced that particular prediction.” (Chiara, Senior Bioinformatician) Computational techniques for generating predictive models have become pervasive in contemporary biomedical research and clinical practice. Whether mobilized to map genomic pathways, identify predictive biomarkers, or for drug repurposing analysis, these tools emerge from the situated work of bioinformaticians and computational biologists. Their epistemic legitimacy, however, is never granted by technical performance alone. It is tied instead to the social infrastructures that render algorithms knowable, most notably the requirement that code be deposited in public repositories and, in clinical contexts, that tools be certified as software as a medical device.

Within these infrastructures, machine-learning tools become “black-boxed” only after entering epistemic cultures that treat the visibility of code as an “epistemic virtue” (Daston and Galison 2007). Put differently, algorithmic objects must be rendered accessible within the “domains of scrutiny” (Goodwin 1994) through which biomedical communities establish what counts as validated knowledge.

This paper examines how the growing adoption of AI unsettles these arrangements. We trace how bioinformaticians negotiate with the other biomedical experts a shift from long-standing practices of code transparency and mutual inspection – what we call the “algorithmic way of reasoning” (Authors forthcoming) – toward the circulation of increasingly black-boxed systems. Drawing on in-depth interviews with bioinformaticians and computational biologists, we analyze the requirement of explainability – framed as the need for the machine to show why it has done what it has done – as a practice situated at the intersection of technological affordances and institutionalized epistemic virtues.

We argue that algorithmic black-boxing introduces a distinctive form of social and epistemological disturbance, one that becomes intelligible when examined through the lens of “professional vision” and the clinical, molecular, and algorithmic gazes that structure perception and judgment in biomedicine. This epistemic disturbance, we argue, is a novel rationalization of the sight. We treat the (in)visibility of algorithms in AI-based bioinformatic tools as epistemic stakes anchored in socially organized conventions of what counts as validated knowledge and in professionally disciplined ways of seeing. The acceptance of AI-based predictive models will therefore be treated as a matter of a “politics of seeing,” tied to those “amalgams of arrangements and mechanisms … which, in a given field, make up how we know what we know” (Knorr Cetina 1999, 1).

Hypothetical enrollment - An anticipatory situated method to assess the implementation of AI diagnostics in clinical settings

Lorenzo Olivieri (University of Bologna), Claudia Montanaro (University of Amsterdam), Annalisa Pelizza (University of Bologna)

Despite the supposed potentialities of AI tools for medical diagnosis, their adoption is a slow and troubled process. Recent empirical studies illustrated the misalignment between the narratives and expectations about these tools and how they work in real-world settings (Carboni et al. 2023) or they highlighted the process of social learning shaping their integrations (Williams et al. 2024). These studies suggest that the adoption of AI diagnostic tools reshapes and transforms the organizational workflows, professional competences and epistemic practices in the clinical settings in which they are deployed. However, there is a substantial lack of research frameworks and methods for addressing the prospects of integrating AI diagnostic tools into real-world settings (Williams et al. 2024).

To assess the organizational and epistemic consequences and challenges of adopting AI tools, we propose “hypothetical enrolment” as a methodological framework. We conceive of “hypothetical enrolment” as a situated, anticipatory and performative approach. It is anticipatory because it focuses on actors’ expectations and on the potential consequences brought by intelligent machines in clinical practices. It is situated because such expectations are analyzed contextually, hence by paying attention to the organizational workflows and knowledge infrastructures in which AI diagnostic tools would be implemented, to the temporal rationale underpinning their use, to the possible practices of appropriation. It is performative since it prompts actors to reflect on the possible implications of the innovation for their daily diagnostic tasks, to imagine further applications and hence to trigger reflection about new modalities of knowledge production.

We test the validity of our method against an empirical case, the start-up Autism Scope (AS). AS applies machine learning models for the early detection of

autism-spectrum-disorder on children below two years of age. AI tools for psychiatric diseases might be especially relevant to analyze, since they are expected to advance the psychiatric field by re-defining mental illnesses in more objective ways than the current DSM-5 (Graham et al. 2019). We conducted interviews with AS developers and with three neuropsychiatrists, exploring the "hypothetical enrolment" of AS in clinical settings. Notwithstanding a generally positive attitude, several organizational, professional and epistemic challenges emerged thanks to our method, such as the integration of the tool into hospital workflows and the effects on the professional identity of neuropsychiatry.
The notion of "hypothetical enrolment" aims to offer a methodological contribute to scholarship at the crossroads of science and technology studies and the sociology of expectations by combining two interrelated dimensions: first, actors' promises and expectations about intelligent machines; second, the infrastructural and organizational features shaping the settings in which the intelligent machines would be adopted.

The datafied patient: algorithmic governance and the reconfiguration of care in AI-driven telemedicine

Qaisar Ali (Yuan Ze University), Ihsan Ullah (Yuan Ze University), Maisam Abbas (Yuan Ze University), Muhammad Hussain (Yuan Ze University), Muhammad Hassan (University of Udine, Bruno Kessler Foundation)

Artificial Intelligence is rapidly reshaping telemedicine, shifting it from an episodic consultation channel to a system of continuous, algorithmically mediated health oversight. While these technologies promise accuracy, early detection, and personalized intervention, they simultaneously introduce far-reaching socio-technical transformations that extend beyond clinical performance. This paper offers a critical examination of how advanced AI-driven telemedicine systems reorganize care practices, professional roles, and the very constitution of the patient. As a representative case, we analyze a state- of-the-art clinical decision-support system that employs graph neural networks and deep reinforcement
learning to interpret high-frequency physiological data from wearable devices and to generate proactive risk stratification. Our analysis argues that such systems do more than enhance clinical reasoning they actively produce a "datafied patient," an identity constructed through continuous sensor measurements, behavioral traces, and machine-learned embeddings. Through this process, telemedicine becomes a domain governed by algorithmic logics, where risk scoring, automated triage, and predictive alerts begin to redefine when care is initiated, how decisions are justified, and which forms of patient experience are rendered visible or invisible within clinical workflows. Three central tensions emerge from this reconfiguration. First, clinical labor is transformed as clinicians increasingly interpret, validate, or override algorithmic recommendations rather than independently structuring diagnostic judgment. This shift demands new hybrid competencies while raising concerns about alert fatigue and the potential erosion of tacit medical expertise. Second, algorithmic personalization remains fundamentally constrained: although framed as individualized care, the system's recommendations are grounded in population-level correlations, often marginalizing the narrative, social, and experiential dimensions that constitute meaningful patient care. Third, accountability becomes diffuse as adaptive, opaque AI models complicate determinations of responsibility when recommendations conflict with guidelines or result in adverse outcomes, challenging regulatory norms for liability, validation, and patient safety. Drawing on Science and Technology Studies (STS), this paper argues that AI-driven telemedicine should be understood not merely as a technological enhancement but as an evolving socio-technical arrangement that reshapes authority, ethics, and the human dimensions of medicine. As healthcare becomes increasingly governed by data and algorithmic logic, we ask: what forms of care are being optimized and at what cost?

Parallel session 2 – 12th February 2026, 16.00-18.00

2A “Healthcare professions and AI: trust, autonomy, and transforming clinical work”

Chairs: Veronica Moretti, Enrico Maria Piras

Medical professionals negotiating with Artificial Intelligence (AI) in Italy: authority, autonomy and boundary work

Laura Sartori (University of Bologna), Marianna Musmeci (University of Bologna)

This contribution aims to investigate the social implications of AI on medical practice. Combining a classic theme in health sociology (the study of professions) with one from the STS field (the role of new technologies in shaping social practices), this contribution focuses on the adoption of AI by doctors, the ways in which doctors interpret and adopt AI, and how the medical profession is being redefined through boundary work.

This contribution aims to explore the social implications of AI in the Italian healthcare system by examining the various forms of boundary work that professionals use to redefine their authority and professional autonomy.

To do this, we rely on 22 in-depth interviews involving clinicians and covering clinicians’ AI awareness and knowledge, use in medical practice, trust, and medical professionalism. We conceive and offer a typology of boundary work that clinicians develop as AI spreads in their work environment. The interview analysis reveals three main types of boundary work – defensive, regulatory, transformative – resulting from the interplay of two underlying analytical dimensions: the willingness of physicians to use AI systems, and the unique aspects of their profession (such as the monopoly of knowledge, clinical expertise, autonomy in decision-making, the physician–patient relationship, and ethical and professional responsibility) used to safeguard their jurisdictional areas.

Our research suggests also that trust in medical AI is an attitude emerging from a complex phenomenon that is co-constructed by the interplay of both technical properties of AI systems and actors that engage in a whole set of social processes (such as design, training, validation, actual use of the AI systems).

It offers an understanding of why clinicians hold defensive and regulatory stances towards technology, primarily informed by the perception that algorithms are objective, neutral, and infallible, and how they capitalise on the transformative potential of AI technology.

Our contribution could foresee strategies for navigating an immature AI ecosystem, where different stakeholders (such as clinicians, developers, hospitals, AI firms and nation states) interact with conflicting views, aims and values.

Telemedicine for patient-physician communication: the perspectives of primary care physicians

Ariela Popper-Giveon (David Yellin Academic College), Yael Keshet (Western Galilee College)

Telemedicine is increasingly used in primary healthcare. The growing use of telemedicine for patient–physician communication raises new challenges and questions established patterns. The use of telemedicine in primary care has become routine in healthcare delivery in Israel, with patients offered either face-to-face appointments in the clinic or remote consultations via phone or the HMO's app.

The presented research examined the experiences of primary care physicians when using telemedicine in their communication with patients. In 2023, in-depth interviews were conducted with 20 Israeli primary care physicians: family physicians and pediatricians.

Three key findings emerged from the interviews: (1) The use of telemedicine, particularly remote consultations, requires physicians to engage in boundary-work vis-à-vis patients. When using telemedicine, primary care physicians negotiate boundaries to facilitate coordination with their patients but also to construct and defend boundaries, which reflect the competition between patients and physicians over power and authority. According to many of the interviewees, patients favor “instant medical care,” while physicians seek to preserve their professional authority in the face of patients’ growing autonomy. (2) Telemedicine use poses challenges to patient-centered care. Undermining patient-centered care - due to lack of interpersonal qualities and soft skills communication from physicians' telemedicine experience - appears to erode their personal well-being and professional satisfaction and may even lead to burnout. (3) Telemedicine also enables primary care physicians to manage their time in ways that better suit their needs. It can allow for better time management, increase work scheduling autonomy, and contribute to physicians' well-being.

Based on these findings, we recommend that (1) Healthcare organizations should instruct primary care physicians on best practices for telemedicine consultations and establish clearer restrictions for patients' use and regulatory guidance delineating appropriate telemedicine use versus in-clinic practices. (2) Primary care physicians should be instructed to better integrate patient-centered care into their telemedicine communication with patients since it contributes to the quality of healthcare and is significant for the well-being of both patients and physicians. (3) We also recommend integrating telemedicine designed to increase physicians' work scheduling autonomy, as the sense that they can better manage their time may increase their well-being and prevent burnout.

Together, these findings underscore the growing role of digital health innovations in shaping the future of primary care. Accordingly, the next stage of our research will investigate the implementation of AI-based tools in primary care, examining physicians' patterns of use, perceptions, and views regarding their potential to enhance care delivery, patient safety, and overall healthcare quality.

Epistemic mediators in the Age of AI: recalibrating trust, risk, and the doctor-patient relationship in robotic- and AI-enhanced care

Linda Lombi (Catholic University of the Sacred Heart), Eleonora Rossero (Independent researcher)

The increasing integration of robotics and Artificial Intelligence (AI) in healthcare is driven by socio-technical expectations that promise profound, structural transformations in clinical practice. While such innovations are often framed as solutions for greater efficiency and precision, they introduce new logics and ethical issues that require critical re-examination, particularly concerning the social dimensions of care. This study, drawing upon Science and Technology Studies (STS) and the sociology of expectations, explores how anticipated technological futures shape clinical encounters, generating new configurations of trust and risk within the doctor-patient relationship.

Based on twenty-four qualitative interviews with surgeons and radiologists in public and private Italian hospitals and research centers, the study comparatively analyses two distinct technological regimes: highly visible robot-assisted surgery and often invisible AI diagnostic support.

The findings indicate that the high expectations attached to these innovations often result in patients projecting a “technological faith” onto the machines, leading to unrealistic expectations and a displacement of trust away from the individual physician and toward the technological system or the prestige of the institution. This dynamic presents a critical distortion in the perception of risk, where the perceived infallibility of the technology may mask complexity and uncertainty. In response to this expectation gap, surgeons are compelled to perform essential recalibration work, positioning themselves as epistemic mediators. This mediation involves guiding patients from an overly optimistic regime of hope toward a more grounded regime of truth, which incorporates the inherent uncertainties and potential adverse outcomes associated with technological interventions. This process requires significant epistemic and emotional labour to manage inflated expectations without eroding necessary trust.

The study highlights how the nature of this mediation differs based on technological visibility. In robotic surgery, trust often relocates to the tangible machine, necessitating open discussion and informed consent management regarding its use. Conversely, in radiology, where AI is an embedded and less visible diagnostic aid - a “second pair of eyes” - patient awareness is lower, and trust is primarily constructed ex post. Here, the radiologist’s mediation is crucial for reaffirming human oversight and accountability, ensuring that algorithmic outputs are validated, interpreted, and communicated within an appropriate clinical framework.

The analysis concludes that physicians’ role as epistemic mediators is indispensable for anchoring clinical decisions in human accountability and contextual judgment. This function is vital not only for maintaining patient trust in increasingly complex environments, but also for engaging in boundary work, as professionals actively defend their professional legitimacy by emphasising their irreducible human expertise (e.g., ethical judgment, patient communication, and relational care) over tasks vulnerable to automation. The findings underscore the critical need for training that integrates technical competence with the relational and communicative skills necessary to navigate the complexities of AI-driven medical practice.

Between promises and risks: how healthcare professionals imagine the role of AI in times of crisis

Veronica Moretti (University of Bologna), Flavia Atzori (University of Bologna), Elisa Castellaccio (University of Bologna)

The expanding integration of Artificial Intelligence (AI) into healthcare is reshaping clinical practices, organisational routines, and decision-making infrastructures (Jiang et al., 2017; Topol, 2019). While much of the literature examines the technical performance of AI tools or the readiness of healthcare workers to adopt them, fewer studies explore how these technologies are imagined and given meaning by professionals, particularly when they operate in contexts of crisis and uncertainty (Kolivand et al., 2025; Lu et al., 2022). Research reveals a coexistence of enthusiasm and scepticism, along with concerns about transparency, accountability, and the erosion of relational aspects of care (Blease et al., 2019; Sharon, 2018).

This paper – part of an ongoing research project – investigates how healthcare professionals who lived through the May 2023 Emilia-Romagna flood imagine whether and how AI could have supported their work during that emergency, and how it might assist them in similar crises in the future. Crisis situations expose systemic fragilities and ethical challenges within healthcare, making the potential benefits and risks of digital technologies more salient. In such contexts, AI is imagined simultaneously as a promising tool for triage, demand forecasting, resource management, and communication, and as a source of uncertainty and additional complexity (Haisoufi et al., 2025; Haykal et al., 2025).

The study is based on semi-structured interviews with healthcare professionals involved in the response to the flood. The conceptual framework draws on three complementary strands: sociology of health and medicine, which helps examine how professionals interpret technological innovations within care processes (Timmermans & Berg, 2003, 2010); the concept of sociotechnical imaginaries, which illuminate shared expectations, hopes, and anxieties surrounding the future role of AI (Jasanoff & Kim, 2015); selected insights from disaster studies, offering analytical tools to understand organisational transformations and decision-making under extreme conditions (Bari et al., 2023; Lu et al., 2022).

By combining these perspectives, the paper provides a theoretically informed and empirically grounded account of how AI is imagined within a crisis-affected healthcare system. The findings aim to contribute to current debates on the governance of AI in healthcare, highlighting how digital technologies are interpreted, contested, or embraced when care must be reorganised under systemic strain.

Professional tinkering and organisational reflexivity to make algorithms useful for clinical practice. The case of cardiological telemonitoring

Ivan Galligani (University of Bergamo), Barbara Sena (University of Bergamo)

In the context of the growing digitalisation of healthcare, there is everyday much interest in experimenting AI and analytical algorithms to support clinical decision-making.

However, sociological literature has highlighted several risks associated with the use of these tools in clinical practice (Pronzato & Gibin, 2025). Firstly, there are practical (e.g. time pressures and work organisation) and cognitive constraints (e.g. opacity/black box) that limit professionals' ability to verify and oversee algorithms (Van Voorst, 2024). This carries the risk of perpetuating biases embedded in algorithms and/or causing misjudgement for which professionals are still finally liable. In addition, depending too much on these tools might lead to an overreliance on computational and biomedical (and therefore reductionist) bases of clinical judgment, ignoring the importance of the professional's 'sensory' skills and the situational/relational dimensions of the doctor-patient relationship (Raphael 2022). Moreover, implementing these technologies in clinical settings requires professionals to perform considerable 'data work' and/or 'algorithmic work', which could reduce the time they spend in direct contact with patients (Bailey et al., 2020).

Finally, at the organisational level, in a context of limited human and financial resources, professionals and organisations may be overwhelmed by the extensive need for organisational rearrangement and the potential exacerbation of workloads to incorporate these additional activities into workflows (Henriksen & Olesen, 2022; Zanutto et al., 2023).

Nevertheless, despite these critical issues, several organisations are exploiting these technologies to improve clinical effectiveness in an increasing body of healthcare applications. Moving beyond mere automation (and therefore delegation to algorithms) and just human 'oversight' of algorithmic results, what emerge as crucial is creative practices that implement a form of 'collaboration' between humans and algorithms, thereby strengthening diagnostic and decision-making processes by leveraging the

complementary strengths of technological computational capacity and professionals' interpretative skills (van Baalen et al., 2021). To achieve this, professionals must do more than simply integrate algorithmic information into their workflows. Instead, professional practices should be reconfigured to activate continuous interaction between humans and technologies, based on ongoing 'tinkering' (Van Voorst, 2025) and 'interrogation' of algorithmic outcomes (Lebovitz et al., 2022). Thus, the final decision will be the result of a reflective process informed by a combination of viewpoints and expertises, leveraging the strengths of each without one view being substituted for another.

In this paper, we will explore these issues through the analysis of two case studies (Sena, 2023) cardiological telemonitoring developed by two different Italian healthcare institutions. In fact, in cardiology, algorithms that predict the risk of decompensation, incorporated by-design into implanted cardiac devices (e.g. pacemakers), are becoming increasingly central to clinical practice (Boriani et al. 2022)

Our analysis will discuss the organisational rearrangements and professional tinkering practices developed by the two teams to exploit the full potential of combining algorithms and human work to support patient care.

2B "Governing Healthcare AI: standards, regulation and policies"

Chairs: Alberto Ardissone, Attila Bruni

"Sailing the ship while building it": navigating healthcare AI innovation between global standards and local experimentation

Liat Bela Lifshitz-Milwidsky (Ben-Gurion University of the Negev), Aviad Raz (Ben-Gurion University of the Negev), Yael Inbar (Tel Aviv University)

Healthcare AI is at the center of a global transformation that presents both opportunities and challenges. While AI's adaptive capabilities offer promise for enhancing medical decision-making, global regulations rooted in risk-aversion constrain these features. Learning from real-world clinical experience presents opportunities for deep learning algorithms to evolve, yet it constitutes a regulatory challenge, as such learning may fundamentally alter the algorithm and raise concerns about biases, explainability, accountability, and equity. Current regulatory frameworks, including the EU AI Act and U.S. FDA guidelines, focus on pre-market approval but fail to provide workable solutions for the continuous monitoring, re-training, and re-validation of AI models post-deployment. The result is a regulatory environment prioritizing stability over the dynamic learning potential that makes AI valuable in healthcare.

This study examines how Israel, an early adopter of healthcare AI, responds to this global tension through sandbox regulation- controlled experimental spaces designed to allow innovation within softened regulatory environments. Our study demonstrates how regulatory sandboxes function at the intersection of digitalization and artificial intelligence. This represents a critical moment in healthcare governance transformation as systems attempt to manage AI's continuous learning capabilities while maintaining safety and oversight. We argue that sandboxes represent a national-level adaptation to global policies, enabling local flexibility while maintaining alignment with international norms. Drawing on 25 in-depth interviews with policy and regulatory actors, 38 hours of ethnographic observations, and analysis of 12 policy documents, we explore how Israeli policymakers use regulatory boundary work to navigate these tensions while simultaneously "sailing the ship while building it"- developing regulatory frameworks in real-time as healthcare AI evolves. Israel's sandbox approach remains largely conceptual despite decade-long deliberations, contrasting with Italy's 2025 legislation mandating healthcare AI regulatory sandboxes.

Our analysis identifies three boundary work strategies connected to the uncertainties of sandboxing AI. First, boundaries are flexed to enable innovation while upholding safety standards. Second, adaptation to disruption is pursued through iterative policy learning. Third, national hybridity is managed by balancing a "startup nation" focus on technological innovation with a commitment to universal healthcare coverage. These strategies reflect awareness of

their own limitations and operate within a political economy that reimagines digital health data as both epistemic and economic resources.
Our findings show that sandbox regulation is not just a technocratic fix but also a performative space where power relations among different forms of knowledge—clinical expertise, algorithmic authority, regulatory knowledge, and patient experience—are negotiated. In the sandbox, key questions arise: whose knowledge counts, who validates AI systems, and how different epistemic claims are evaluated. Addressing these questions represents critical governance challenges.
Grounding our analysis in the political economy of digital health, we argue that sandboxing acts both as a governance mechanism and as a socio-technical framework for value extraction. Our study shows regulatory experimentation is co-constructed by technology, policy, and society, shaping both the governance of AI systems and the reimagining of health, illness, and care in the digital era.

Algorithmic governance and the politics of value: AI low-code platforms and AI on-device in the sociotechnical transformation of value-based health care

Isabel Ventura Pereira (University of Coimbra)

Health systems are currently under pressure to improve clinical outcomes, increase efficiency, and deliver patient-centered care while rapidly adopting new digital health technologies and navigating complex policy environments. This paper presents a conceptual and critical analysis of the interrelated advancements – AI Low-Code Application Platforms, AI On-Device architectures and Value-Based Health Care (VBHC) – that are facilitating a profound sociotechnical transformation of healthcare governance and practice.
AI Low-Code platforms are commercially promoted as "democratizing" tools, accessible to non-specialist users (clinicians, administrators…) to create applications using visual interfaces and drag-and-drop logic. However, they typically operate in closed, proprietary ecosystems, which raise significant governance challenges related to vendor lock-in, data sovereignty and the centralization of development power. Simultaneously, AI On-Device "market" promises real-time responsiveness, enhanced privacy, and less reliance on centralised cloud infrastructures by moving computation to edge devices like smartphones, wearables and bedside monitors. This architecture, however, shifts the duties of maintenance, reliability, and interpretability onto clinicians, patients, and caregivers, often without adequate institutional support, creating new forms of workflow fragility. Finally, VBHC fundamentally changes how health system performance is conceptualized by relying on standardised, outcome-based metrics, a process that risks excluding or marginalizing relational, contextual, and contested aspects of care.
Utilising concepts from Science and Technology Studies – specifically Actor-Network Theory and the notion of embedded politics – this paper frames these three developments as powerful sociotechnical actants. The analysis focuses on how they collectively inscribe and stabilize specific definitions of "value," "efficiency," and "good care" within digital health platforms. This contribution is based on a critical analysis of existing literature, policy documents (such as the EU AI Act), and technical reports, as part of my ongoing PhD. The research examines the interconnections between platforms, algorithms, metrics, policies, and professional practices through the process of translation, inscription, and enrolment, which serve to stabilize particular configurations of power, accountability, and professional agency.
This paper argues that the convergence of AI Low-Code platforms, AI On-Device and VBHC exemplifies groundbreaking forms of algorithmic governance and a "politics of life". In this emergent configuration, patients are systematically positioned as data-producing components, while clinicians are relegated to active, yet potentially less autonomous, actors constrained by a system of metrics and responsibilities. By emphasizing these sociotechnical dynamics, this contribution aims to provide a critical framework for comprehending how emerging AI-based infrastructures in healthcare not only bolster existing systems but also actively transform institutional priorities, professional agency, and opportunities for more equitable and context-sensitive care modalities.

Public data governance and inequalities: the case-study of the Immuni app

Marco Palmieri (University of Roma Sapienza)

European institutions are increasingly adopting "Data Governance," enabling them to respond to citizens' needs through decision-support systems that leverage diverse data to inform public policy planning. This strategy forms the basis for new relational structures between citizens and institutions, grounded in the public value of data (Martire, 2020). During the COVID-19 crisis, many countries implemented innovative public health technology strategies, such as mobile contact-tracing applications, to disrupt the virus's spread. Immuni was the digital application introduced in Italy. This study aims to understand the reasons for the underuse and negative perception of Immuni among Italian citizens during the pandemic, as well as why they chose not to share personal information that would have enabled the app to function correctly. To achieve this goal, a structured questionnaire was administered to a probabilistic, representative sample of 800 Italian adults using a mixed-mode approach (CATI, CAMI, and CAWI) during the October 2020 lockdown. The empirical results show that people feared the app would violate their own privacy. Despite widespread reluctance among adults (but not among young people) towards Immuni, uncertainty about stable employment and a lack of solid economic capital increased the fear that Immuni would force individuals into quarantine, preventing them from continuing to perform informal jobs—often poorly paid and carried out without a regular contract, but vital for those not permanently employed and living in adverse conditions. The Immuni case study shows how a public health protection policy based on the Data Governance model can exacerbate age, economic, and labor inequalities. Moreover, Immuni's failure indicates that the Data Governance approach requires that citizens manage the concept of data culture: citizen participation shapes public awareness of the public utility of private data, thereby sharing individual responsibility with the rest of the community (Palmieri, Aprile, 2024).

Parallel session 3 – 13th February 2026, 10.00-12.00

3A "Patienthood in the age of AI: lived experience, ageing and algorithmic health"

Chairs: Alberto Ardissone, Stefano Crabu

Digital divides in informal care: The role of caregiver–recipient dyads among older adults in Italy

Emanuela Sala (University of Milano Bicocca), Paolo Candio (University of Trento), Alhassan Yosri Ibrahim Hassan (INRCA), Giovanni Lamura (INRCA), Marco Terraneo (University of Milano Bicocca)

Digital technologies are increasingly promoted as promising strategies to address the growing care needs of ageing populations. However, their use remains unequally distributed, with older adults often disadvantaged. Informal carers—spouses, siblings, or friends providing unpaid care—carry substantial responsibilities yet remain underexplored in digital health research. Among them, older informal carers are especially vulnerable, facing both age-related digital divides and caregiving-related strains.

To date, only limited evidence exists on how older informal carers engage with digital services. A recent scoping review identified merely ten studies addressing carers' use of e-health, highlighting significant gaps in knowledge. Moreover, dyadic perspectives that consider both the caregiver and the care recipient have rarely been applied, despite their growing importance in ageing and care research. Our study addresses this gap by investigating informal carers and their care recipients as dyads, focusing on how their demographic characteristics (age and gender) and caregiving intensity influence the frequency of digital technology use.

Data and Methods: We draw on cross-sectional survey data collected in Italy in 2021. Eligible participants were aged 18 years and older, provided unpaid care to an adult at home, and had internet access. Recruitment was conducted through caregiver organisations and Eurocarers research partners. The questionnaire gathered information on socio-demographic background, caregiving context (e.g., hours per week, care recipient dependency), and digital engagement (e.g., frequency of accessing online information platforms, training, or support tools). To address our research scope, we estimated ordered logistic regression models including dyadic interactions between caregiver and care recipient characteristics to identify predictors of digital engagement. Analyses were stratified by age to capture generational differences in the determinants of digital use.

Findings: Regression models reveal that caregiver–recipient dyads where both are female report significantly lower levels of digital engagement compared with male–male dyads, net of socio-demographic controls. This pattern is consistent across age groups. Furthermore, the interaction between care hours and recipient dependency is a significant predictor: among older carers (>65), providing more intensive care is associated with increased use of digital services only when the recipient is not highly dependent. Conversely, when dependency is high, greater caregiving intensity corresponds to markedly lower digital engagement, suggesting that burden reduces opportunities to seek digital support.

Conclusions: Our findings highlight that digital health inequalities among informal carers are not solely individual but also dyadic, shaped by the combined characteristics of caregivers and recipients. Policies and interventions aiming to promote digital inclusion in long-term care should therefore adopt a dyadic perspective, with particular attention to female caregiver–recipient pairs and carers under conditions of high-intensity, high-dependency care.

What if 'healthy' is not all I want to be?

Jose Luis Guerrero Quiñones (Institute of Philosophy of the Czech Academy of Sciences)

Health consciousness has become unavoidable, and with it an increase in the preoccupation to live according to the mandates of a specific lifestyle that promises to bring health, making us live better and longer. The rapid advances in AI-powered technologies contribute to the gathering and processing of millions of data points reflecting our health, which can be used to design more personalised plans that assist individuals in pursuing a healthier lifestyle. The result is a narrow conception of health that focuses on quantifiable data that can be analysed to generate a model of a healthy subject, who is, consequently, obsessed with optimising each of the variables that contribute to their health. This paper examines how technology delimits and prescribes specific concepts of health and well-being, being especially attentive to how the incorporation of AI into existing tracking medical devices exacerbates a quantified and reductive (self)interpretation of the individual.

The body as battery: the role of algorithmic scores in understandings of health and illness

Ann Kristin Augst (Dortmund University)

Data-driven metrics embedded in consumer wearables increasingly shape how individuals understand and manage their health (and illness) in everyday life. Garmin, one of the most popular manufacturers of smartwatches, offers the "Body Battery," a proprietary score derived from heart-rate variability, sleep patterns, stress indicators, and activity data. Its widespread use provides a compelling starting point for an STS-based reflection on how everyday health is rendered measurable and actionable. Analytically, I approach the Body Battery as a black-boxed translation device (Latour 1987) that collapses heterogeneous biosignals into a single number that claims to represent "energy" or "capacity", while obscuring the algorithmic and physiological assumptions embedded in its production.

This paper draws on 21 qualitative interviews with individuals with chronic illnesses, including ME/CFS (Myalgic Encephalomyelitis/Chronic Fatigue Syndrome) and Long Covid, who use consumer health devices for day-to-day health management, and 11 physicians across medical specialties. A recurrent theme in the patient interviews is the striking practical usefulness and phenomenological resonance of the Body Battery: participants rely on the score for pacing, anticipating post-exertional crashes, and navigating limited energy resources. Despite its opacity, the metric becomes an "epistemic ally"; one that affirms embodied experience where clinical biomarkers are sparse or contested.

Clinicians, by contrast, largely dismiss the score due to its proprietary nature, unclear biomedical grounding, and lack of clinical interpretability, exposing an epistemic rift between medical expertise and lived experience. In Mol's terms (2002), the Body Battery helps enact a particular version of the body, one that aligns more closely with patients' embodied realities than with standard biomedical measurement regimes. The metaphor of "the body as battery", even without visual resemblance to conventional battery icons, participates in what Haraway (1997) describes as technocultural world-building: it invites users to apprehend bodies as devices that can be depleted, recharged, and optimised.

This paper asks how imagining the body as a rechargeable device – whose "capacity" can be quantified, monitored, and managed – reshapes concepts of health, illness, and the boundaries of bodily responsibility. Drawing on Lupton's work on self-tracking (2016) and Bowker & Star's analyses of classificatory infrastructures (1999), I explore whether the Body Battery subtly reorganises how chronic illness is lived and understood, shifting attention to energy as a governable resource, redistributing responsibility for "proper charging", and offering alternative forms of validation in contexts of medical uncertainty.

By examining how a black-boxed consumer metric becomes central to chronic illness management, the paper suggests that the algorithmic mediation of energy may not simply measure bodies but may also contribute (albeit in partial and situated ways) to reconfiguring what bodies are taken to be and what it means for them to be well or unwell.

Aging with artificial intelligence: perceptions, opinions and practices in the sociotechnical construction of smart ageing

Gabriele Ioriatti (independent researcher)

The recent rapid expansion of artificial intelligence (AI) in the field of assistance, care and daily life for the elderly appears to be gradually redefining the boundaries between health, autonomy and technology.

Utilizing an approach inspired by science and technology studies (STS), the research investigates how a group of elders (those over 65) perceive and interpret artificial intelligence within the paradigm of smart ageing.

The investigation is founded upon two well-established guidelines in the literature, which in this research have been identified as two principles:

A) Principle of socio-technical intelligibility, i.e., the belief that the success and adequate implementation of a technology depends on its acceptance and

understanding by the entire socio-technical system.
B) the co-design principle, which emphasizes the need to actively involve users, in this case the elderly, in the definition, adaptation and, more generally, implementation of technologies that affect them.
Drawing upon these theoretical references and the literature, a conceptual framework was defined, based on four key areas of smart ageing: physical well-being, social experiences, mental abilities and living environment.
The empirical research is grounded in fifteen qualitative interviews conducted with individuals over the age of 65 residing in Trento. The objective of this research is to explore the opinions, representations, expectations and practices related to AI in various domains of daily life. The subjects investigated encompass health, employment, social relationships, art, politics and the domestic and urban environment.
The findings indicate that artificial intelligence is not merely regarded as a means of support or control, but rather as a socio-technical entity that contributes to the emergence of new forms of agency, trust and vulnerability.
Furthermore, significant differences emerge in perceptions in relation to the areas explored, the experience of the digital divide and the ability to integrate technologies into one's own life contexts.
The prevailing sentiment regarding AI is one of positivity in relation to the domains of living environment and physical well-being. Conversely, AI is regarded with a degree of negativity in the context of social relations, professional endeavors, artistic pursuits, and political spheres.
The study contributes to the debate on the digitalization of health and the role of AI in smart ageing, highlighting the systems of meaning and everyday negotiations that permeate usage practices and often remain invisible in the analysis of technologies for ageing.

Quantifying illness: quality of life as a sociotechnical object in AML care between lived experience and digital futures

Elisa Castellaccio (University of Bologna)

The progressive integration of digital technologies and artificial intelligence tools into healthcare systems is reshaping what counts as evidence, how decisions are made, and which forms of knowledge are granted legitimacy in clinical practice. In oncology—and particularly in acute myeloid leukemia (AML), a field marked by profound prognostic uncertainty and extremely intensive treatment regimes—Quality of Life (QoL) remains a crucial epistemic space in which the lived experience of illness still holds substantial weight.
Recent techno-scientific developments, however, are increasingly transforming QoL from a situational and relational phenomenon into a measurable and comparable object. Digital monitoring tools, patient-reported outcome measures, and AI-assisted decision-making systems convert subjective states into numerical indicators. As reflected in conceptual reflections emerging within the Horizon Europe IMPACT-AML project, these transformations prompt fundamental questions: Does QoL risk being reduced to a quantitative presence of symptoms? How can embodied subjectivity be articulated within emerging infrastructures of measurement?
Drawing upon Science and Technology Studies and sociology of health, this contribution mobilises three analytical lenses: (1) Annemarie Mol's distinction between the logic of care and the logic of choice, revealing tensions between singularity and commensurability; (2) scholarship on metric culture and responsibilisation, which highlights how wellbeing can become a moral obligation of optimisation; (3) critical data studies, which illuminate the potential production of new forms of vulnerability and exclusion through datafication.
The following question drives the analysis: What happens to QoL when it becomes a technical parameter guiding therapeutic decisions? And what implications arise for care relationships, institutional responsibilities, and patient agency?
The argument developed suggests that QoL digitalisation opens two coexisting and divergent futures:

- a generative scenario, in which quantified experience strengthens patients' voice and fosters more attuned care;
- a critical scenario, in which standardisation and predictive analytics constrain biographical complexity and further amplify existing inequalities.

Conceptualising QoL as a sociotechnical object ultimately invites a rethinking of evidence, vulnerability, and justice in an oncology landscape increasingly mediated by AI.

3B "Healthcare professions and AI: trust, autonomy, and transforming clinical work"

Chairs: Marta Gibin, Barbara Sena

AI and the future of primary care in Italy: between challenges and opportunities

Martina Consoloni (University of Bologna)

Primary care is widely regarded as a key component of equitable and sustainable health systems. Yet in Italy, as in many European countries, it faces growing pressures linked to population ageing, rising levels of chronic conditions, workforce shortages, and organisational models still strongly oriented toward hospital-based care. In this context, artificial intelligence (AI) is often presented as a resource capable of improving service efficiency, supporting diagnostic and therapeutic pathways, strengthening prevention, and reducing administrative burdens.
Despite the expanding debate on AI in healthcare, little is known about how these technologies are actually being integrated into everyday primary care practices, a field that is inherently complex, diverse, and demanding. In Italy, the issue gains particular relevance in light of the ongoing reorganisation of primary care introduced by Ministerial Decree 77/2022 and the planned deployment of an AI platform within the newly established Community Health Houses. However, systematic analyses of the concrete contribution such technologies might make to territorial services remain limited.
Drawing on the sociology of health and STS, this contribution reflects on the introduction of AI into primary care, focusing on the promises, expectations, and tensions surrounding algorithmic systems in this level of care. The analysis is organised into three parts: (a) a review of international literature on AI applications in primary care, with attention to organisational and regulatory implications; (b) an examination of key policy issues that emerge across these studies, including bias, digital inequalities, and the reconfiguration of professional responsibilities; and (c) a discussion of the sociotechnical conditions identified in the literature as necessary to integrate AI in ways consistent with the core principles of proximity, equity, and continuity that define primary care.
Building on these elements, the contribution outlines several avenues for reflection relevant to Italian health policy, examining which sociotechnical assemblages may be considered desirable and legitimate within territorial care practices, which values should be embedded in the development of these technologies, and which strategies could guide their equitable use within primary care.

Personalised AI-based clinical training: counterfactual evaluation of the GLARE-Edu platform

Greta Sofia Lampis (Bruno Kessler Foundation), Alessio Bottrighi (University of Piemonte Orientale), Sergiu Constantin Burlacu (Bruno Kessler Foundation), Luigi Castello (University of Piemonte Orientale), Luca Piovesan (University of Piemonte Orientale), Erica Raina (University of Piemonte Orientale), Annalisa Roveta (Alessandria Hospital), Paolo Terenziani (University of Piemonte Orientale)

AI-based training tools are expected to enhance the acquisition of complex medical competences, yet rigorous evidence on their effectiveness in medical education remains limited. This paper evaluates the impact of GLARE-Edu, an AI platform for personalised learning, on medical students' test performance and attitudes towards AI. GLARE-Edu delivers computer-interpretable clinical guidelines and simulates diagnostic-therapeutic decisions on virtual patients at cardiovascular risk. The platform development and training activities were coordinated by Università del Piemonte Orientale together with Azienda Ospedaliero-Universitaria of Alessandria.
The study aims to estimate the causal effect of GLARE-Edu on students' knowledge of cardiovascular guidelines and on their attitudes towards AI. We report a pilot randomised controlled trial conducted with 55 medical students. Students were individually randomised to a treatment group, which received access to GLARE-Edu and a control group, which followed usual teaching only. Fifty students completed both baseline and final assessments. Outcomes were

measured at four time points (TP0-TP3) through written tests comprising: (i) items aligned with GLARE-Edu clinical scenarios and structured as hypothetical cases requiring guideline-consistent diagnostic and therapeutic choices; (ii) “non-GLARE” items on cardiovascular disease, drawing on textbook guidelines and traditional teaching materials; (iii) an overall test score; (iv) an attitudes-towards-AI Likert scale. Additional data included platform usage logs, a usability (UX) scale, and open-ended questions on what most supported learning for the final exam.
Integrity checks indicate low and balanced attrition and good baseline balance between arms. Intention-to-treat effects are estimated using ordinary least squares with HC3 robust standard errors, controlling for baseline scores and AI attitudes; non-parametric tests and exploratory models complement the analysis. We find no statistically significant average treatment effect of GLARE-Edu on examination performance or AI attitudes. Both treatment and control groups display clear learning gains over time. In the treatment group, we observe a temporary performance dip at TP1 that disappears by TP2, suggesting an initial learning curve as students and teachers familiarise themselves with the platform. Platform use intensity varies across students and weeks. Exploratory dose-response analyses based on time on the platform point to slightly better outcomes among high-intensity users, although effect sizes are modest and not statistically significant in this small pilot. UX scores indicate a positive evaluation of the platform, and qualitative answers portray GLARE-Edu as a useful complement within a broader “learning ecology” dominated by clinical cases and tutoring. Students also report limited use of other AI tools and we find no evidence that such additional tools or group-study patterns mediate the impact of GLARE-Edu.
The study contributes to current debates on AI in medical education and socio-technical change in healthcare. To our knowledge, this is among the first studies to go beyond usability metrics and use an experimental design to estimate the causal impact of an AI-driven training tool on knowledge and attitudes in medicine. The absence of statistically significant effects, despite positive UX ratings, suggests that AI-driven personalisation alone does not guarantee measurable learning gains and that intensity of use, duration of exposure and curricular integration play an important role. The pilot is constrained by its small sample and implementation within an elective course. Building on encouraging qualitative feedback and suggestive patterns for high-intensity users, future, larger-scale studies should test whether more sustained and structurally embedded use of GLARE-Edu can improve knowledge, decision-making and clinical behaviour.

WhatsApp, RCTS and the virus: digital infrastructures and moral agency in pandemic medicine

Roberto Lusardi (University of Bergamo), Rosario Aprile (University of Bergamo)

The COVID-19 pandemic disrupted the epistemic foundations of contemporary medicine and the social order of expertise, exposing deep tensions between the paradigm of Evidence-Based Medicine and everyday clinical practice. During the crisis, what counted as legitimate knowledge for guiding clinical decision-making became highly contested. In Italy, these tensions became particularly visible with the emergence of informal networks of physicians who, from the earliest waves, criticized institutional responses to the virus. Confronted with urgent clinical responsibilities, these practitioners organized themselves into informal groups to produce actionable knowledge aligned with both scientific principles and their professional conscience.
These networks functioned as spaces of professional, ethical, epistemic, and practice-oriented exchange, enabled by the affordances of digital technologies. Digital tools—such as WhatsApp, Facebook, and YouTube—were essential not only for rapid communication, mutual support, and the sharing of clinical experiences useful for developing protocols, but also for the epistemic consolidation of the networks in their pursuit of scientific and institutional legitimacy. Their knowledge-production processes were often deemed insufficiently validated by institutional and scientific authorities, contributing to the networks’ marginalization.
By examining these digitally mediated environments of informal knowledge co-production, this study investigates how the networks generated knowledge during the pandemic and how their epistemic misalignment with institutional and scientific actors gradually shifted from a primarily scientific dispute to a profoundly moral one. The research draws on 36 semi-structured interviews with network members, complemented by the analysis of official documents, publicly available video materials, and interactions on digital platforms.
The analysis identifies four interpretive frames—epistemic misalignment, emergent network formation, moral shock, and protest—that capture the relational dynamics between the networks, public health authorities, and the dominant scientific community. Findings reveal that professional agency was deeply intertwined with a moral dimension, understood as ethical, deontological, and epistemic responsibility toward patients and society. Moreover, the study shows that digital technologies played a crucial role not only in the networks’ formation and knowledge production but also throughout their pursuit of scientific and institutional recognition, including the organization of protest actions aimed at legitimizing the outcomes of their co-production processes.

Therapeutic relationship and communication in the era of digital healthcare

Lucia Galvagni (Bruno Kessler Foundation)

Three main languages characterize contemporary medicine and healthcare.
There is a clinical language, used by doctors, nurses, and more broadly by healthcare professionals: this language is scientific and can be perceived by “non-clinicians” as technical, since it is not immediate and is not easily understood by “non-experts.”
The second language is organizational, reflecting the logic and dynamics of healthcare organizations and referring to the organizational aspects of care necessary to ensure that it is well structured and that conditions of care are adequate: this language seems to be very prevalent today, to the point of becoming predominant over the others.
A third language is more existential in nature: it reflects the dimensions experienced in the reality of care. This language is considered typical of patients, but it also concerns clinicians, since they too recount their experiences and allow them to emerge within the care relationship. This language is less ‘technical’ than the other two, because it is deeply personal and cultural. Each of these different languages corresponds to different narrative modes: thus, we encounter narratives from clinicians in which clinical and scientific language prevails, narratives from organizations in which organizational language prevails, and narratives from patients in which the existential dimension prevails.
The presence and use of digital technologies for health may represent and introduce a fourth language for and within the specific field of medicine and healthcare. In this context, it is possible to observe that these technologies require new expertise on the part of clinicians and represent a necessity for healthcare organizations: as far as patients are concerned, it could happen that the patient finds himself or herself more knowledgeable than his or her caregiver. How much could these technologies then affect the redefinition of roles and care relationships? The presentation will explore this hypothesis and reflect on her impact on therapeutic dynamics and relationships, underscoring the relevance that can have in ethical and social terms.

Roundtable (12th February 2026, 14.00-15.30)

Moderators: Stefano Crabu, Marta Gibin

This roundtable hosts an interdisciplinary conversation on what happens when data-driven models and digital infrastructures enter healthcare practice, research, and organisational decision-making. Bringing together complementary perspectives –data science for health (Giuseppe Jurman), law & regulation (Paolo Guarda), sociology of technology (Laura Sartori), and computational epidemiology & digital health (Michele Tizzoni)– the session examines how AI and digital transformation of healthcare produces: (i) new forms of evidence and decision-support, (ii) new configurations of rules and rights over data/software, and (iii) shifting responsibilities and accountability arrangements. We will surface key trade-offs (performance/robustness vs equity; innovation vs protection; openness vs intellectual property; automation vs professional responsibility) and discuss their implications for trust, governance, and public value in health systems.

Participants:

Laura Sartori (University of Bologna): sociologist

Title: "Beyond bias: how AI is reconfiguring the domain of medicine"
Abstract: As in the past, sociology is responsible for addressing the issues that other disciplines dealing with the genesis and deployment of AI have overlooked. Sociology is left with the 'consequences' and 'effects' of AI. Topics such as bias and inequalities were therefore first investigated by sociologists. We now know that bias can be introduced at any stage of the AI life cycle, from design to deployment, and that inequalities can arise at three levels: data, models, and outputs.
I will briefly outline the contribution of a sociological perspective to the study of bias and inequalities, touching upon critical aspects such as the human supply chain behind AI systems, the redefinition of relevant concepts for the medical profession (e.g., boundary work, authority and trust), the challenges faced by healthcare organisations, and the Participatory AI approach to design.

Paolo Guarda (University of Trento): jurist

Title: "Medical Research Data Sharing between Proprietary Rules and Openness"
Abstract: Collaboration and sharing of knowledge and data are crucial in the medical field, particularly in scientific research, as they are necessary for progress of science. While the COVID-19 pandemic initially acted as a catalyst for Open Science, the subsequent return to restrictive proprietary practices suggests a missed opportunity for systemic change. It became pivotal to establish some criteria to determine the appropriate balance between the public interest in sharing and the existing individual needs and rights in avoiding the disclosure of information.
The European legislator has shown its intention to take some important steps towards the opening of data and information. The declared aim is to provide an alternative model to the data processing practices of major technological platforms. Several regulations and directives have been enacted or proposed in line with the "European Data Strategy", the EU program aimed at creating a single market that allows data to flow freely and across all sectors for the benefit of businesses, researchers and public administrations (e.g., Open Data Directive, Data Governance Act, Data Act, Artificial Intelligence Act, etc.). These acts should be coordinated with the already existing data protection legislation (ie. the General Data Protection Regulation) and intellectual property law. To achieve the ambitious goal of improving data sharing, clear and fair rules regarding access to data and its reuse need to be defined. Encouraging sharing in key sectors is promoted by setting up specific interoperable data "spaces" at EU level. In particular, the Regulation on the European Health Data Space of 11 February 2025 aims at creating a health-specific ecosystem.
The effectiveness of this vision must contend with a complex stratification of regulatory interventions which raise substantial coordination and implementation issues. The resulting system reveals a "Doctor Jekyll and Mr. Hyde" nature: an unresolved tension between the narrative of openness and operational rules of closure, oscillating between the drive toward sharing and the persistence of proprietary barriers.

Giuseppe Jurman (Fondazione Bruno Kessler / Humanitas University): data scientist

Title: "AI & Translational medicine, aka the AI Chasm: the bumpy road from bench to bedside"
Abstract: While Artificial Intelligence has demonstrated superhuman performance in controlled research environments, the transition to real-world clinical practice remains fraught with systemic hurdles. In particular, the primary barriers can be categorized into five critical domains affecting different phases of the end-to-end pipeline of the process:

- Data Heterogeneity: The struggle with fragmented, unstructured data and the phenomenon of "data drift" across diverse clinical sites.
- The Interpretability Gap: The "black box" nature of deep learning and the urgent need for Explainable AI to build clinician trust.
- Workflow Integration: Overcoming "alert fatigue" and ensuring AI tools reduce, rather than increase, the cognitive load on overextended medical staff.
- Algorithmic Equity: Identifying and mitigating biases that can inadvertently exacerbate healthcare disparities among underrepresented populations.
- Regulatory & Liability Frameworks: Navigating the legal gray areas of accountability and the evolution of FDA oversight for adaptive models.

By shifting the focus from model-centric metrics to system-centric integration, we can move toward a future where AI serves as a seamless, equitable, and reliable partner in clinical decision-making.

Michele Tizzoni (University of Trento): computational social scientist

Title: "AI and the fight against infectious diseases: obstacles and opportunities"
Abstract: AI is reshaping epidemiological methods by changing how data are represented, integrated, and operationalized, rather than replacing core epidemiologic reasoning. In forecasting, AI enables hybrid systems that combine mechanistic models with machine learning, allowing adaptive, high-dimensional, and near-real-time predictions, but requiring continuous monitoring under non-stationarity. In causal inference, AI improves estimation—through flexible modeling, handling missingness, and extracting variables from text—but it does not solve identification, which still depends on study design and assumptions. For surveillance, AI supports continuous, multi-signal detection and nowcasting, while risking inequities due to uneven data generation. A major transformation lies in the integration of heterogeneous data sources: AI makes linkage and latent signal recovery feasible, but potentially reinforces correlated biases. Key risks include measurement and deployment bias, model drift, spurious correlations, and the absence of reliable ground truth. Responsible use requires clear separation of predictive and causal goals, explicit design choices, ongoing governance, and equity-focused evaluation.
Bio note: Associate Professor at the University of Trento. His research spans computational social science, computational epidemiology, and digital health. He models human behavior and mobility to understand and predict infectious disease spread. Combining data science, network theory, and statistical physics, he develops data-driven models that inform public health response and epidemic preparedness, publishing across physics, biology, and data science.

Practical information

Venue

Department of Sociology and Social Research,
Via Verdi 26, Trento, Italy
The venue is in the city centre, 10-15 min. from the train station (walking).

Conference dinner

The dinner will be held at Trattoria Piedicastello, Piazza di Piedicastello 12, Trento.
The restaurant is a 15-minute walk from the conference venue.
The cost of dinner is €35 per person.

For any queries, please contact
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