One-Click Care: artificial intelligence and new relational dynamics

by Sara Sbaragli*

The digital and algorithmic transition of healthcare systems is redefining organisational models, decision-making processes, and the doctor-patient-caregiver relationship. The article analyses this evolution on three levels: the international regulatory framework guiding the technologicalization of healthcare; the emergence of AI as a "third agent" capable of influencing communication, trust, and participation; and the risks associated with algorithmic bias, decision-making opacity, and new inequalities. Evidence shows that AI can improve the quality of care when it facilitates understanding, reduces documentation burden, and operates under clinical supervision. However, it can weaken the care relationship when it amplifies information asymmetries, generates dependence on automation, or relies on non-representative datasets. The article offers a socio-technical interpretation of the ongoing transformation so that AI can enhance – rather than erode – the care relationship.

Keywords: artificial intelligence; care; doctor-patient relationship; algorithmic trust; algorithmic bias; data governance.

Cure in un click: intelligenza artificiale e nuove dinamiche relazionali

La transizione digitale e algoritmica dei sistemi sanitari sta ridefinendo modelli organizzativi, processi decisionali e la relazione medico-paziente-caregiver. L'articolo analizza questa evoluzione su tre livelli: il quadro normativo internazionale che orienta la tecnicizzazione della sanità; l'emergere dell'IA come "terzo agente" capace di influenzare comunicazione, fiducia e partecipazione; e i rischi legati a bias algoritmici, opacità decisionale e nuove disuguaglianze. Le evidenze mostrano che l'IA può migliorare la qualità dell'assistenza quando facilita la comprensione, riduce il carico documentale e opera sotto supervisione clinica. Tuttavia, può indebolire la relazione di cura quando amplifica asimmetrie informative, genera dipendenza dall'automazione o si basa su dataset non rappresentativi. L'articolo propone una lettura socio-tecnica della trasformazione in corso affinché l'IA diventi un elemento di potenziamento – e non di erosione –della relazione di cura.

Parole chiave: intelligenza artificiale; cura; relazione medico-paziente; fiducia algoritmica; bias algoritmici; governance dati.

DOI: 10.5281/zenodo.18436086

* Università di Napoli Federico II. sarasbaragli@gmail.com.

1. The digital and algorithmic transition of healthcare services: regulatory evolution and trajectories

Over the past two decades, the digitalisation of healthcare has been a growing priority for the European Union (EU) and its Member States, emerging as one of the main drivers of healthcare system transformation. E-Care, or healthcare supported by digital tools and information and communication technologies (ICT), has progressively established itself as a key pillar in the transformation of healthcare systems towards more sustainable, accessible, and patient-centred models[1]. This evolution is part of a broader process of healthcare system reconfiguration, necessitated by increasing life expectancy, the growth of chronic diseases and multimorbidity, the shortage of healthcare workers, and the pressure of public costs for healthcare and long-term care, which are expected to rise across the EU (European Commission, 2018). Digitalisation in healthcare is not just a technical process, but a socio-cultural transformation that changes the forms of interaction, attribution of meaning and building trust in the care relationship, requiring new interpretative skills on the part of patients and professionals (Maturo, 2024).

In this context, the European Union early recognised the strategic importance of digital health, integrating it into the Digital Agenda for Europe as early as 2010 (European Commission, 2010) and subsequently consolidating it in the *eHealth Action Plan 2012–2020*, which defined clear objectives for the integration of eHealth into Member States' healthcare systems (European Commission, 2012). The Commission further strengthened this orientation in 2018 with the Communication "Transforming health and care in the Digital Single Market", which emphasises the need to develop interoperable services, ensure secure access to health data, promote citizen empowerment, and foster the diffusion of innovative solutions for the prevention and management of chronic diseases. The interoperability of data and technological systems is described as a fundamental prerequisite for overcoming the fragmentation that limits the circulation of health data, the quality of care, and the ability of systems to generate economies of scale (EC, 2018).

The Covid-19 pandemic has accelerated this process, revealing on the one hand the structural vulnerability of healthcare systems, and on the other

[1]A model of eCare tools in the healthcare sector applicable to all pathologies is proposed in Sbaragli S. (2020) and is composed of: Podcast, Blog, Social Network, Online Health Communities, Personal Health Record and App.

the ability of digital technologies-telemedicine, digital triage systems, remote monitoring, data-sharing platforms – to ensure continuity of care, proximity, and organisational resilience. In 2021, through the *Bussola per il digitale 2030*, the Commission reiterates that the Covid-19 pandemic has demonstrated and paved the way for the widespread use of innovative telemedicine and remote care. Digital technologies can enable citizens to monitor their health, adapt their lifestyle, promote independence, prevent non-communicable diseases, and improve the efficiency of healthcare providers, services, and health systems. The most significant step in the recent regulatory process is the establishment of the *European Health Data Space (EHDS)* in 2022, which aims to create a regulated, harmonized, and secure ecosystem in which health data can circulate for both primary (treatment) and secondary purposes, promoting research, innovation, and increased capacity of health systems to respond to health emergencies, as demonstrated by the Covid-19 pandemic (EU, 2022).

Another area of regulatory development concerns telemedicine, which in recent years has acquired a central role not only as a clinical tool but also as an organisational infrastructure. In Italy, for example, Ministerial Decree 77/2022 established for the first time a comprehensive regulatory framework for the provision of telemedicine, recognising its value for community care, the proximity and sustainability of the National Health Service (NHS), as well as the need for shared standards, citizen protections, and adequate accountability systems (Pisani, 2024). This path reflects similar trends in other European and OECD countries, where telemedicine is gradually being institutionalised and integrated into clinical and healthcare processes.

At the same time, at the supranational level, the World Health Organization (WHO) has played a crucial role in defining an internationally shared strategic framework. The *Global Strategy on Digital Health 2020-2025* provides a set of principles, objectives, and concrete actions to guide countries in planning and implementing national digital health strategies, with the aim of supporting the achievement of universal health coverage (UHC), strengthening health systems, and improving digital health data governance (WHO, 2021). The strategy emphasises the need to develop robust interoperability architectures, integrated health information systems, data governance frameworks that balance innovation and security, and significant investment in training and *digital health literacy*.

In the European Region, these guidelines have been further developed through the *Regional Digital Health Action Plan for the WHO European Region 2023-2030*, which represents one of the most comprehensive global

roadmaps for the digital transformation of health systems. The plan identifies four strategic priorities: (1) defining evidence-based norms and guidelines, (2) strengthening countries' capacity to govern digital transformation and improve digital literacy, (3) building exchange and innovation networks, (4) identifying scalable, sustainable and patient-centred solutions (WHO, 2023). The WHO underlines how the pandemic has acted as a catalyst, accelerating the adoption of telemedicine, digital platforms and advanced surveillance systems, but also how it has highlighted profound disparities between countries with mature digital infrastructures and others that are less advanced (ibid.).

Another key player on the international scene is the Organisation for Economic Co-operation and Development (OECD), which in recent years has developed an advanced body of analysis dedicated to the evaluation of *digital medical devices* and the definition of harmonised methodologies for their *Health Technology Assessment (HTA).* The OECD (2025) highlights how the rapid evolution of tools such as digital therapeutic applications, *artificial intelligence-based solutions*, and digital diagnostics requires new evaluation tools capable of ensuring clinical efficacy, safety, data protection, interoperability, and usability for patients. A comparative analysis of various countries shows a growing convergence towards accelerated evaluation and reimbursement pathways and increasingly clear and harmonised regulatory frameworks, necessary to support the responsible adoption of digital innovation in healthcare systems.

The spread of artificial intelligence (AI) in healthcare is profoundly transforming the organisation, clinical processes, and governance of healthcare systems. AI not only introduces innovative technical tools but is also helping to redefine decision-making processes, the roles of professionals, and the management of healthcare data. According to the World Health Organization, AI can improve the quality, equity, and efficiency of healthcare provided it is guided by an ethical model based on human oversight, transparency, and accountability throughout the algorithms' lifecycle (WHO, 2021; 2024). Particular attention is paid to preventing bias and "data poverty", which can pose significant risks, especially for vulnerable groups.

In Europe, the most advanced regulatory response is the *AI Act* (*Regulation EU 2024/1689*), the first horizontal regulatory framework for artificial intelligence. The regulation adopts a risk-based approach and classifies most healthcare applications as "high-risk", imposing specific requirements regarding data quality, transparency, technical documentation, and human oversight (European Union, 2024).

The transition to AI-based healthcare systems, therefore, requires new professional skills, robust data infrastructures, and ongoing audit and monitoring mechanisms. The literature highlights how bias, information mismatches, and dataset representativeness can increase the risk of error and digital injustice (Schmidt *et al.*, 2024). The key challenge is developing multilevel governance that integrates standards, ethical principles, and innovation, so that the adoption of AI contributes to making healthcare systems more effective, safe, and equitable.

Taken together, these regulatory and strategic frameworks converge toward a shared vision: the transition of healthcare systems to digital and artificial intelligence represents a systemic transformation, which is not limited to the introduction of new technologies but involves structural changes in care models, the doctor-patient relationship, data governance, and innovation evaluation mechanisms.

2. Artificial Intelligence as a third agent in care relationships

The introduction of artificial intelligence in healthcare is changing the *morphology of the doctor-patient-caregiver relationship*, transforming it from a dual interaction to a triadic configuration in which the algorithmic system becomes a third protagonist capable of guiding communication, decisions, and expectations. This "*triad*" of patient-clinician-algorithmic system, expressed by linguistic models and generative systems that synthesize, translate, or suggest clinical content, can both facilitate understanding and expand the agency of the patient and caregiver – for example, by simplifying technical documents or reducing the doctor's writing burden – and, if left unmanaged, shift the focus of the encounter from mutual listening to the management of pre-formatted output (de O Campos *et al*., 2025).

In this new framework, the central issue is not about "trusting AI" in an abstract sense, but about how trust between people and systems is calibrated: literature shows that appropriate trust – distinct from both naive delegation and systematic suspicion – is rooted in *operational transparency*, in the declaration of limits and in the visibility of clinical control; when these conditions are not present, the relationship risks becoming vulnerable, with oscillations in the therapeutic alliance and negative perceptions, especially in groups that already experience relational fragility, such as some cohorts of women who report a lower sense of listening or control in the absence of contextual explanations (Goisauf *et al*., 2025; Zondag *et al*., 2024).

Experience also shows that AI introduces a new form of *information asymmetry*: not only clinician↔patient, but also user↔model, influenced by pre-knowledge, expectations and technological stereotypes, to the point that unmediated use can turn into a "semantic barrier" rather than a communication bridge (Arbelaez *et al*., 2025). However, when AI is explicitly integrated into *shared decision-making processes* – as in "AI- supported models shared decision-making" (AI-SDM) – the relationship tends to remain under the joint control of clinician, patient and caregiver, with the algorithm relegated to a supporting and not substitutive role, provided that the boundaries, decision-making logic and data provenance are clarified (As'ad, 2025).

Scribing/voice-to-text tools allow for the reduction and facilitation of documentation management, freeing the doctor from administrative tasks and returning time and energy to the relationship, with measured effects on efficiency, timeliness and patient-centredness, although heterogeneity and standardisation problems persist (Alboksmaty *et al.*, 2025).

On the intelligibility side, *Large Language Models* (LLMs) that rewrite or explain reports increase patient and caregiver understanding and self-efficacy, but require qualified supervision to avoid oversimplifications and ensure consistency with clinical evidence (Stephan *et al.*, 2025). At the same time, the qualitative variability of generalist chatbots in acute situations requires that their limitations be clearly communicated to avoid unrealistic expectations (Yau *et al.*, 2024).

In this scenario, the clinician's role is reconfigured: from a "solitary decision-maker" to a "*director*" who integrates, filters, and explains the AI's outputs, coordinating preferences, values, and constraints in the conversation, and recognising the algorithm as one of the available sources, not as an authority (Kingsford & Ambrose, 2024). The *co-production of care* thus takes on an expanded form, in which patients, caregivers, and professionals jointly define objectives and action thresholds, integrating the AI as a relational infrastructure, reducing the "ritual black box effect" that risks generating perceptions of judgment or exclusion (Clark *et al.*, 2024).

However, where unrepresentative datasets or opaque governance positions AI as a filter even before the clinical encounter, the relationship can slide into forms of algorithmic paternalism that undermine trust and hinder the expression of dissent (Cross *et al.*, 2024). This requires *algorithmic literacy*, clear information ("*model cards*" and *factsheets* for patients), independent audits, and the possibility of reasoned objection (Stroud *et al*., 2025).

On the ethical-legal level, new questions emerge on the allocation of responsibility: the literature converges on socio-technical models in which responsibilities are distributed and traceable along the life cycle of the algorithm, while the clinician maintains the professional judgment and the explanation to the patient as an integral part of the consent (Nouis *et al*., 2025). The issue of fairness is strictly relational: biases in data can reverberate through clinical conversations and choices, impacting historically marginalized populations; hence the insistence on "*fair-by-design*" pipelines and evaluations in *real-world settings* (Hanna *et al.*, 2025).

Furthermore, clinicians, patients and caregivers interpret AI through different cultural frames: expected benefits, fears of substitution, questions about what makes care "care" – elements that influence the acceptability and sustainability of adoption (Baillie *et al.*, 2025). Within the visit, AI output serves as a decision-making framework that can guide preferences and counterfactual inferences: the clinician's task is to help the patient and caregiver situate the algorithmic evidence within their own values, weigh *trade-offs*, and recognise uncertainty as a constitutive part of the decision (Hassan *et al.*, 2024). Where this is lacking, AI tends to lend its suggestions an aura of inevitability or, conversely, generate over-trust towards unvalidated tools. Yet some applications-such as the guided simplification of radiological reports or the use of "virtual patients" in training-show immediate benefits, although effectiveness metrics remain immature (Holderried *et al.*, 2024). A further transformative vector concerns the extra-clinical use of AI by patients and caregivers: many arrive at the visit after having "dialogued" with a model and seek validation or refutation, redefining the boundaries of the relationship and introducing new challenges of conversational safety and epistemic negotiation (Goldberg, 2024).

At a social level, attitudes are mixed: some citizens expect an *improvement* in the relationship with their doctor thanks to AI, while others fear depersonalization and loss of control; the modulation of these expectations depends on previous experience, the perception of transparency and the way AI is implemented in the clinical context (Nong, Ji, 2025). Qualitative studies with developers, clinicians and patients show that acceptability depends on concrete signals of usefulness and safety (e.g., non-intrusive integration into workflows, response times, explainability) rather than on abstract discourses on "intelligence" and "autonomy", and that perceptual divergences between stakeholders should be addressed through *co-design* and systematic feedback (Baillie *et al*., 2025). Ultimately, the most solid trajectory seems to be the one that links *relational benefit* and *responsible design*: where AI is made visible, explainable, debatable and *negotiable* (i.e.

negotiable on the merits), the relationship not only holds but can improve – more time to look, less bureaucracy, more informed choices; where, on the other hand, AI operates in an opaque mode or imposes an additional cognitive load on the patient, the alliance cracks, with effects of distrust or passive delegation (Alboksmaty *et al*., 2025).

WHO guidelines and European legislation (AI Act, 2024) guide this scenario, imposing transparency, data quality, human supervision and the possibility for the patient to refuse the use of AI, with direct implications on clinical communication and the need for proportionate explanations (WHO, 2024; Van Kolfschooten, Van Oirschot, 2024).

3. Algorithmic bias and reproduction of inequalities in health care

The introduction of artificial intelligence into clinical settings represents not only a technological evolution but a structural transformation of the doctor-patient relationship. Several critical issues emerge on epistemic, relational, organisational, and ethical-legal levels. An initial weakness arises from the lack of transparency of complex models and *black box* systems, which makes it difficult for doctors and patients to understand the decision-making criteria underlying algorithmic recommendations (Tonekaboni *et al*., 2019). The lack of explainability directly impacts shared decision-making and can lead to a loss of orientation and control, especially in the most vulnerable patients or those with reduced health literacy. Added to this is the risk of *automation bias*, well-documented in the experimental literature, according to which exposure to incorrect suggestions from a decision support system induces diagnostic conformity and reduces clinical accuracy (Jabbour *et al*., 2023).

On a relational level, the perception of opacity or uncontrolled delegation to AI can undermine therapeutic trust (Longoni *et al*., 2019). The specific risks of generative language models – *hallucinations*, omissions, and overconfidence – can also lead patients to attribute unwarranted trust to automated responses, especially when adequate professional supervision is lacking (Madabushi, Jones, 2025). Consequently, trust becomes a practice to be built in the clinical encounter, as the WHO also recalls in its guidelines, which emphasise the need for transparency, human supervision, and calibrated expectations (WHO, 2024).

Equity front, the risks are equally significant. The emblematic case highlighted by Obermeyer *et al.* (2019) shows how a healthcare algorithm, trained using costs as a proxy for clinical need, underestimated severity in

Black patients compared to White patients. Subsequent studies confirm that biases can emerge at any stage of the AI lifecycle and translate into perceived or actual injustices in the care relationship (Cross *et al*., 2024). For this reason, European regulations – including the provisions of the AI Act for high-risk systems – require data quality, traceability, and human oversight (EU, 2024).

On an organisational-relational level, tools such as *ambient AI scribes* demonstrate potential benefits in reducing the burden of documentation, but raise serious questions about informed consent, privacy, security of recorded data, and the perception of surveillance during the clinical encounter (Tierney *et al*., 2024). Without adequate safeguards, the risk is that of compromising the space of trust and vulnerability that is the heart of therapeutic communication. Added to this is the possibility of *deskilling*, already reported in the literature as an unintended consequence of the routine automation of parts of clinical reasoning (Cabitza *et al*., 2017).

Critical issues also extend to responsibility and the allocation of accountability: who is responsible if an adverse outcome results from an algorithmic recommendation? WHO guidelines and European regulations call for socio-technical models with distributed responsibilities, but with the physician always "in the loop" and responsible for explaining the outcome to the patient (WHO, 2024; EC, 2024). Furthermore, explainability – to be useful for consensus – must allow the patient not only to understand the outcome, but also to challenge it, integrating counterfactuals and model limitations (Freyer *et al*., 2024).

Finally, on the relational level, trust depends heavily on the physician's perception of agency. Patients are more accepting of AI when they perceive that the clinician remains primarily responsible for interpretation, critically filters recommendations, and maintains an empathetic attitude that is attentive to the patient's uniqueness (Nagy, Sisk, 2020). Conversely, when AI appears to be a substitute for clinical judgment, mistrust, information reticence, and a deterioration in the quality of the medical history emerge.

Conclusions

Ultimately, the integration of digital and artificial intelligence into healthcare services is now an essential path to addressing the challenges of contemporary healthcare systems and seizing the opportunities offered by technological innovation. WHO guidelines, European Commission poli-

cies, and OECD assessment frameworks outline a complex yet coherent ecosystem, designed to ensure that digital and algorithmic transformation is not simply a process of technological adoption, but a structural change aimed at making healthcare systems more equitable, resilient, efficient, and truly people-centred. The transition of healthcare systems towards AI represents one of the most complex and strategic issues in contemporary public policy. AI is not a neutral technology but a transformative force that redefines roles, relationships, responsibilities, values, and social expectations. The WHO (2021) provides an essential ethical framework to guide this transformation, while the AI Act (2024) introduces an advanced and ambitious regulatory model aimed at ensuring security, transparency, and the protection of fundamental rights.

The introduction of artificial intelligence in healthcare does not represent a simple technological enhancement, but a structural transformation of the care relationship, which from dyadic becomes triadic, with the algorithmic system as a third actor capable of guiding communication, decisions and expectations (de O Campos *et al*., 2025).

Evidence converges on a conditional outcome: AI can strengthen the doctor-patient relationship when it reduces administrative burden, improves information readability, supports decision-making with contextual explanations, and operates under verifiable clinical supervision. It can weaken it when it introduces opacity, amplifies inequalities, or shifts the conversation from the ends of care to the means of calculation.

The opportunities – greater information comprehensibility, decision-making support, and reduced paperwork – coexist with significant risks: bias, opacity, dependence on automation, professional deskilling, and potential distortions in trust. Major international institutions, from the WHO (2021; 2024) to the EU with the AI Act, agree on the need for human oversight, transparency, and robust data governance, especially to protect vulnerable groups and ensure fairness.

The emerging challenge, therefore, is not the "reliability of AI" in the abstract, but the quality of the sociotechnical ecosystem within which it is adopted. Evidence suggests that only a critical, contextual, and distributively just integration will allow AI to enhance – not replace – the relational and deliberative dimension of care, preserving the centrality of the clinical encounter.

In short, the critical issues AI introduces into the doctor-patient relationship are not mere "technological side effects", but sociotechnical challenges that require responsible design and thoughtful practices: equity and performance audits for subgroups, calibration and communication of uncer-

tainty, anti-automation-bias protocols, "explain-back" spaces where patients can reformulate their understanding, accountability and decision-tracking mechanisms integrated into clinical workflows, and governance that combines law, ethics, and empirical evaluation of outcomes. Only "*relational AI*" – integrated into an intervention framework that values clinical judgment, empathy, and shared deliberation – can prevent innovation from undermining the capital of trust on which compliance, safety, and equity of care depend.

References

Alboksmaty A., Aldakhil R., Hayhoe B.W., Ashrafian H., Darzi A., Neves A.L. (2025). The impact of using AI-powered voice-to-text technology for clinical documentation on quality of care in primary care and outpatient settings: a systematic review. *EBioMedicine*, 118.

Arbelaez Ossa L., Rost M., Bont N., Lorenzini G., Shaw D., Elger B.S. (2025). Exploring patient participation in AI-supported health care: qualitative study. *JMIR AI*, 4: e50781.

As'ad M., Faran N., Joharji H. (2025). AI-supported shared decision-making (AI-SDM): conceptual framework. *JMIR AI*, 4: e75866.

Baillie L., Stewart-Lord A., Thomas N., Frings D. (2025). Patients', clinicians' and developers' perspectives and experiences of artificial intelligence in cardiac healthcare: a qualitative study. *Digital Health*, 11: 20552076251328578.

Cabitza F., Alderighi C., Rasoini R., Gensini G.F. (2017). "Handle with care": about the potential unintended consequences of oracular artificial intelligence systems in medicine. *Recenti Progressi in Medicina*, 108(10): 397-401.

Clark K.S.B., Rudell E., Setiadi D., Agrawal T., Oliver B.J. (2024). Beyond shared decision-making: integrating coproduction, learning health systems, artificial intelligence, and workforce development for patient-centered care. *The Permanente Journal*, 28(3): 284.

Cross J.L., Choma M.A., Onofrey J.A. (2024). Bias in medical AI: implications for clinical decision-making. *PLOS Digital Health*, 3(11): e0000651.

de O Campos H., Wolfe D., Luan H., Sim I. (2025). Generative AI as third agent: large language models and the transformation of the clinician-patient relationship. *Journal of Participatory Medicine*, 17(1): e68146.

European Commission (2010). *A digital agenda for Europe*. COM(2010) 245 final.

European Commission (2012). *eHealth action plan 2012–2020: Innovative healthcare for the 21st century*.

European Commission (2018). *Communication on enabling the digital transformation of health and care in the digital single market*. COM(2018) 233 final.

European Commission (2024). *Regulation (EU) 2024/1689 of the European Parliament and of the Council on artificial intelligence (AI Act)*.

European Union (2022). *European health data space*.

Freyer N., Groß D., Lipprandt M. (2024). The ethical requirement of explainability for AI-DSS in healthcare: a systematic review of reasons. *BMC Medical Ethics*, 25(1): 104.

Goisauf M., Cano Abadía M., Akyüz K., Bobowicz M., Buyx A., Colussi I., Meszaros J. (2025). Trust, trustworthiness, and the future of medical AI: outcomes of an interdisciplinary expert workshop. *Journal of Medical Internet Research*, 27: e71236.

Goldberg C. (2024). Patient portal: when patients take AI into their own hands. *NEJM AI*, 1(5): AIp2400283.

Hassan N., Slight R., Bimpong K., Bates D.W., Weiand D., Vellinga A., Slight S.P. (2024). Systematic review to understand users' perspectives on AI-enabled decision aids to inform shared decision making. *npj Digital Medicine*, 7(1): 332.

Holderried F., Stegemann-Philipps C., Herrmann-Werner A., Festl-Wietek T., Holderried M., Eickhoff C., Mahling M. (2024). A language model–powered simulated patient with automated feedback for history taking: prospective study. *JMIR Medical Education*, 10(1): e59213.

Jabbour S., Fouhey D., Shepard S., Valley T.S., Kazerooni E.A., Banovic N., Sjoding M.W. (2023). Measuring the impact of AI in the diagnosis of hospitalized patients: a randomized clinical vignette survey study. *JAMA*, 330(23): 2275-2284.

Kingsford P.A., Ambrose J.A. (2024). Artificial intelligence and the doctor-patient relationship. *The American Journal of Medicine*, 137(5): 381-382.

Longoni C., Bonezzi A., Morewedge C.K. (2019). Resistance to medical artificial intelligence. *Journal of Consumer Research*, 46(4): 629-650.

Madabushi H.T., Jones M.D. (2025). Large language models in healthcare information research: making progress in an emerging field. *BMJ Quality & Safety*, 34(2): 73-76.

Maturo A. (2024). *Il primo libro di sociologia della salute*. Torino: Giulio Einaudi Editore.

Nagy M., Sisk B. (2020). How will artificial intelligence affect patient-clinician relationships? *AMA Journal of Ethics*, 22(5): 395-400.

Nong P., Ji M. (2025). Expectations of healthcare AI and the role of trust. *Journal of the American Medical Informatics Association*, 32(5): 795-799.

Nouis S.C., Uren V., Jariwala S. (2025). Evaluating accountability, transparency, and bias in AI-assisted healthcare decision-making. *BMC Medical Ethics*, 26(1): 89.

Obermeyer Z., Powers B., Vogeli C., Mullainathan S. (2019). Dissecting racial bias in an algorithm used to manage the health of populations. *Science*, 366(6464): 447-453.

OECD (2025). *OECD health working papers*, n. 177. Towards identifying good practices in the assessment of digital medical devices.

Pisani A.A. (2024). *Telemedicina: quadro normativo, tutele e diritti, sistema delle responsabilità*. Bologna: Bologna University Press.

Sbaragli S. (2020). Riprogettare i servizi: dalle cure all'e-Care. In: Cipolla C., Dal Molin R., Pipinato C., a cura di, *Di Parkinson si vive. Le dimensioni socio-assistenziali della malattia*. Milano: FrancoAngeli, 151-186.

Schmidt J., Schutte N.M., Buttigieg S., Novillo-Ortiz D., Sutherland E., Mossialos E., van Kessel R. (2024). Mapping the regulatory landscape for artificial intelligence in health within the EU. *npj Digital Medicine*, 7: 229.

Stephan D., Bertsch A.S., Schumacher S., Puladi B., Burwinkel M., Al-Nawas B., Thiem D.G. (2025). Improving patient communication by simplifying AI-generated dental radiology reports with ChatGPT. *Journal of Medical Internet Research*, 27: e73337.

Stroud A.M., Minteer S.A., Zhu X., Ridgeway J.L., Miller J.E., Barry B.A. (2025). Patient information needs for transparent and trustworthy cardiovascular artificial intelligence. *PLOS Digital Health*, 4(4): e0000826.

Tierney A.A., Gayre G., Hoberman B., Mattern B., Ballesca M., Kipnis P., Lee K. (2024). Ambient artificial intelligence scribes to alleviate the burden of clinical documentation. *NEJM Catalyst Innovations in Care Delivery*, 5(3): CAT-23.

Tonekaboni S., Joshi S., McCradden M.D., Goldenberg A. (2019). What clinicians want: contextualizing explainable machine learning for clinical end use. In: *Machine Learning for Healthcare Conference*. PMLR, 359-380.

Van Kolfschooten H., Van Oirschot J. (2024). The EU artificial intelligence act (2024): implications for healthcare. *Health Policy*, 149: 105152.

WHO (2021). *Ethics and governance of artificial intelligence for health*. Geneva: World Health Organization.

WHO (2021). *Global strategy on digital health 2020–2025*. Geneva: World Health Organization.

WHO (2023). *The ongoing journey to commitment and transformation. Digital health in the European Region 2023*. Copenhagen: WHO Regional Office for Europe.

WHO (2024). *Ethics and governance of artificial intelligence for health: 2024 update*. Geneva: World Health Organization.

Yau J.Y.S., Saadat S., Hsu E., Murphy L.S.L., Roh J.S., Suchard J., Langdorf M.I. (2024). Accuracy of prospective assessments of four large language model chatbot responses to patient questions about emergency care. *Journal of Medical Internet Research*, 26: e60291.

Zondag A.G., Rozestraten R., Grimmelikhuijsen S.G., Jongsma K.R., van Solinge W.W., Bots M.L., Haitjema S. (2024). The effect of artificial intelligence on patient-physician trust. *Journal of Medical Internet Research*, 26: e50853.