



Participatory Medicine and Reshaping Healthcare Technology

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Abstract. This chapter explores the transformation of the healthcare sector through the convergence of technological advancements and a growing emphasis on patient-centered care. We talk about the importance and role of participatory medicine not only in clinical practice but also in medical education. Our work emphasizes on digital tools that can empower patients and doctors to manage their well-being and address challenges with new approaches respectively. A great discussion around user-driven technology is there along with the tools developed by our team over the years namely, Patient Journey Records (PaJR) and Case-Based Blended Learning Ecosystem. These models have encouraged us to move forward with 360 degree approach in medicine which traditional old models lack.

Keywords: Participatory Medicine, User Driven Health Care, Digital Tools in Medicine.

1 Introduction

The healthcare sector is undergoing a profound transformation, characterised by the convergence of rapid technological advancements and an increasing emphasis on patient-centred care. Over the years, the immense potential of digital tools to empower individuals in managing their well-being has brought about a shift recognising the limitations of traditional healthcare delivery models and the transition towards a fundamental re-evaluation of how healthcare services are conceived, delivered and experienced. As patients become more informed and digitally connected, participatory medicine—a model where patients, caregivers, and clinicians collaborate as active partners—marks a shift from doctor-led care to a more collaborative approach where care is co-created by patients and providers.

The healthcare landscape in India provides a critical context for recognising the urgent need for transformation. The dynamic interplay between government initiatives and the involvement of private entities creates a complex environment for healthcare access among the general public.[1] This duality often presents significant challenges, as the public sector, which aims for affordability, accessibility, and universal coverage, struggles with issues of corruption that can obstruct effective care for impoverished communities.[1] A 2021 report published in *The Lancet* and highlighted in *The Hindu* ranked India's healthcare access and quality at a concerning 145th out of 195 countries, underscoring systemic vulnerabilities.[2] The real challenge that highlighted the urgency was the COVID-19 pandemic, which led the government to adopt measures like the 'Ayushman Bharat Digital Mission (ABDM)' in 2021.[3] This program promotes wellness, digital record keeping, and data privacy while establishing a robust technological infrastructure.[1] In this context, participatory medicine and user-driven healthcare models emerge as essential strategies for empowering individuals and improving healthcare outcomes at the grassroots level.[1]

The active participation of end users in developing and implementing healthcare technology is evolving. The term “**end users**” encompasses many individuals, including patients, their caregivers, and clinicians [4]. Significant challenges have previously hindered the adoption and utilisation of healthcare technology when end users' needs, preferences, and established workflows were not sufficiently considered. This oversight has resulted in costly technologies that are clinically irrelevant in everyday practice or fail to address the real-world challenges patients and providers face.[5] Conversely, when end-user engagement is prioritized, it can lead to effective solutions that are readily accepted and seamlessly integrated into healthcare practices.[6] However, it is essential to ensure that these engagement strategies uphold the principles of universal care delivery while addressing potential digital health inequalities to avoid exacerbating existing disparities in access to care between different socioeconomic groups.[7]

Participatory medicine represents a model where patients and healthcare professionals actively collaborate as equal partners in all aspects of the healthcare journey[8], including shared decision making, maintaining patient autonomy alongside the clinician's expertise.[9] Evidence suggests that this collaborative model can lead to numerous benefits, including improved health outcomes, enhanced patient and professional satisfaction and potentially lower healthcare costs through increased adherence to treatment regimens and greater engagement in preventive health behaviors.[9] Participatory health informatics (PHI) has emerged as a distinct field. The Journal of Participatory Medicine serves as a central platform for disseminating research and best practices, highlighting the critical role of information technologies in facilitating patient engagement and participation in healthcare.[10,11]

The primary aim of this chapter is to explore the user-driven ecosystem in healthcare technology, especially the role of end-user engagement through participatory medicine models. The scope goes beyond examining stakeholder roles, the limitations of traditional approaches, the rise of participatory models and enabling tools like PaJR and CBBLE, while also addressing barriers, opportunities and the ethical considerations of co-creating future health systems where patient autonomy and shared decision making are paramount.

2. Defining the User-Driven Healthcare Ecosystem

A user-driven healthcare ecosystem can be defined as a patient-centric and interconnected network of individuals, technologies and organisations that collaboratively work towards improving health outcomes and enhancing the overall healthcare experience, with the active participation and needs of the patient at its core.

[12]. This model shifts the focus from traditionally paternalistic, provider-centric systems to a more collaborative environment where patients are empowered to take an active role in managing their health and well-being[12]. Technology is an enhancer inside this ecosystem, providing the infrastructure required for communication, data exchange and collaborative learning among users[13]. In a user-driven ecosystem, **patients** are not merely passive recipients of care but providers of meaningful inputs that tailor care to their needs[14,15]. This can include sharing and dispensing valuable health data, such as personal health tracking technologies, wearables and self-monitoring tools, providing clinicians with crucial insights into their daily lives rather than mere episodic clinical cases[10]. This enables them to become their advocates of well-being, giving them the courage to take charge of their lifestyle. This can also be seen as an indirect implementation of the “**point and calling out**” technique famously used by Japanese train operators who point out signals and details at every stop to prevent accidents. The same is done via a user-driven healthcare ecosystem, where the patients and the caregivers update (point and call out during the process of follow-ups) healthcare providers, and subconsciously make themselves self-aware of their body. This will be elaborated in further chapters. **Caregivers**, often primary or first-degree family members or relatives, also provide patient

support, assistance and advocacy, especially in chronic illnesses, disabilities or the elderly[11]. Technology offers caregivers assistance through remote monitoring capabilities, connecting with healthcare teams, asking questions and receiving timely updates on the patient's condition[16]. Caregivers are also provided access to valuable resources, educational materials and support networks within this ecosystem, helping them navigate the demanding responsibilities of caregiving [16].

Clinicians including doctors, nurses and other healthcare professionals like junior residents and medical students, experience an evolution in their role[8] as it empowers them with more comprehensive and readily accessible patient data, including real time information from remote monitoring devices and patient generated health data, enabling more informed diagnoses, personalised treatment plans and proactive management strategies[17]. Well-designed technology within the ecosystem has the potential to ease administrative tasks, improve communication among team members and reduce the burden of documentation, ultimately contributing to a reduction in clinician burnout and an enhancement of their overall work experience[15]. This real-time data can also be utilised for advancing medical education, enabling students to learn more via real-world scenarios rather than rote textbook learning.

Technologists, including software developers, data scientists and engineers, are responsible for developing and maintaining the technological infrastructure that forms the basis for the user-driven ecosystem[4]. Active incorporation of feedback from various stakeholders while adopting human centered design principles throughout the technology development lifecycle is essential to ensure that the resulting solutions are intuitive to use, address real-world challenges and allow for seamless integration into the system[5]. Data security and privacy of sensitive patient data are other key aspects which must adhere to relevant regulations to build and maintain trust among all users[18]. Patient de-identification and consent are required before using and recording patients' data via new tools. This could lead to the employment of additional staff members for efficient recording of data systems and ensuring patient anonymity.

'Techne' in its historical context, encompasses more than just technical skill; it refers to art, craft, technique and a profound understanding or practical wisdom applied to the process of making or doing. Medicine traditionally represented "the healing art", requiring a deep knowledge base, clinical judgment, experience gained through practice, and the skilful application of medical principles to individual patient needs.[19] Technology integration into medicine within a user-driven ecosystem should embody the essence of 'techne' rather than simply replacing the crucial human elements of empathy, intuition and personalised care with purely mechanistic processes[19]. Telemedicine and digital health platforms like the 'E-Sanjeevani' are examples that can significantly expand access to quality healthcare services, particularly in remote and underserved areas of India[1]. Revisiting the Indian healthcare context, a user-driven ecosystem empowered by technology can help realise the full potential of this synergy with participatory medicine. Increased

transparency and patient involvement can curb corruption and foster greater accountability within the healthcare system[1].

3. Healthcare's Uncharted Map and Limitations of Traditional Top-Down Approaches

- Medicine has traditionally been regarded as a noble profession, combining scientific knowledge with compassionate care to relieve suffering and enhance health. Yet, as Sir William Osler said, it remains "a science of uncertainty and an art of probability," often unfolding as an unpredictable and complex journey. This ever-evolving healthcare landscape is akin to uncharted territory where conventional methods may no longer suffice.
- Understanding the use of this metaphor, "uncharted territory", is essential before we move further. The human body is an extraordinarily complex system, and disease processes are shaped by a vast spectrum of genetic, environmental, and lifestyle influences. Each patient presents a unique clinical puzzle, making diagnosis and treatment a nuanced and often challenging task. Despite significant advances in medical science, clinicians frequently face nonspecific symptoms, atypical disease presentations and unpredictable treatment responses. Adding to this complexity is the variability seen in healthcare delivery. Differences in practice styles, quality of care, and outcomes across regions and providers reflect the inconsistent application of guidelines and the deeply individualized nature of care. Medicine is constantly in flux with new research findings, innovations, and therapeutic strategies that continuously reshape clinical paradigms, requiring healthcare professionals to remain adaptable and committed to lifelong learning. Therefore, healthcare requires knowledgeable individuals and doctors open to critical thinking, curiosity, and a willingness to embrace the unknown while dealing with atypical cases that fall short of standard protocol care.
- Traditional healthcare systems have operated through a hierarchical, top-down framework in which policies, procedures, and clinical guidelines are crafted by specialists and then passed down to frontline healthcare workers for uniform implementation. Historically, healthcare has been marked by a paternalistic model, with physicians regarded as the sole authorities and patients expected to comply passively. The Hippocratic tradition emphasized the ethical imperatives of beneficence and the principle of *primum non nocere*—"first, do no harm." According to Hellin, paternalism is a stringent application of beneficence, likened to the parent–infant dynamic, in which the physician assumes full responsibility for decision-making, acting in what they perceive to be the patient's best interest. In this model, the 'ideal patient' was seen as one who accepted the physician's directives without question, much like an infant depends on a parent[20,21]. Though rooted in good intentions, this approach has notable

shortcomings. Top-down systems often fail to involve patients in their care meaningfully, overlooking their preferences, values, and lived experiences. This can result in poor treatment adherence, reduced satisfaction, and subpar health outcomes. The following is a comprehensive list of challenges often faced while operating in traditional healthcare delivery models:

- **Inadequacy in Managing Complexity:** As aforementioned, patients with multifaceted medical issues benefit from a multidisciplinary approach that integrates physical, psychological and social dimensions. However, traditional emphasis on disease-specific interventions can neglect the broader context[22]. The challenges of this model became particularly apparent during the COVID-19 pandemic, when rapidly evolving evidence and changing local realities outpaced centralised systems' ability to adapt.
- **Insufficient Personalisation:** With evolving precision medicine in fields such as oncology and genome sequencing, such precision is required not only to determine variations in genetics but also for personalised healthcare based on each patient's lifestyle and coexisting health issues, which can influence treatment effectiveness[23].
- **Communication Barriers:** Top-down models may limit the dialogue between patients, their caregivers and providers, leading to misunderstandings, diminished trust, and weak collaborative decision-making[24]. Including caregivers in treatment decision-making, especially in chronic diseases, can help **achieve** harmony in the family while considering the logistical needs of the caregivers for patients. User-driven healthcare involves patients and their primary attenders keeping them in the loop of every decision-making process.
- **Fragmented Care of Patients with Multiple Co-morbidities:** Individuals with multiple chronic illnesses often engage with numerous healthcare providers annually, yet only a small portion of their health data is effectively communicated across care settings. This fragmentation contributes to redundant testing, medical errors, care **decision discontinuity**, and decision-making delays [25].
- **Lack of evidence-based Medicine practice in aspiring physicians:** While many adversities are faced by patients and doctors in patient-centred care, traditional models also hinder the practice of evidence-based medical learning in medical students, limiting their perspectives and management protocols. This can be overcome by utilising the innovative approaches explained in chapters 2 and 3.

4. Examples of complexity and ambiguity in real-world patient care

Having examined the inherent limitations of traditional healthcare delivery models, it is essential to grasp various scenarios to fully appreciate the impact of user-driven interfaces. The scenarios outlined below illustrate the inadequacies of conventional approaches and underscore the necessity for a shift toward participatory medicine, in which patients actively engage as partners in their own care.

- **Chronic Pain Management:**
Chronic pain involves a range of biological, psychological, and social factors. A strictly biomedical approach, centering on medications or procedures, tends to ignore these layers, resulting in poor outcomes and patient dissatisfaction[26]. In contrast, participatory strategies that engage patients in goal-setting, treatment choices, and self-management have proven more effective in addressing the condition's complexity[27].
- **Mental Health Care:**
Mental health disorders are diverse in presentation, with overlapping symptoms and variable responses to treatment. Traditional models focusing primarily on diagnosis and medication may fail to consider the patient's unique experiences and social context.
- **Cancer Treatment:**
Care has become increasingly individualised as oncology evolves with personalised medicine, immunotherapies, and targeted treatments. Patients need to be well-informed and directly involved in choosing treatments that might include discussions around end-of-life care, hospice settings, next-of-kin discussions, etc.
- **End-of-Life Care:**
Choices at the end of life are often emotionally and ethically nuanced. Excluding the patient's voice through a top-down model can result in care that conflicts with their preferences, potentially causing unnecessary suffering[28].
- **Shifting Patient Goals:**
Patients' priorities can change over time, especially during chronic or terminal illnesses. For example, someone with advanced cancer might initially pursue aggressive interventions but later focus on comfort and quality of life. Participatory care supports continuous communication and joint decision-making and allows treatment plans to adjust accordingly[29].
- **Social Determinants of Health:**
Non-medical factors like housing, employment, and social support play a vital role in health outcomes but are often overlooked in conventional care models. Addressing these requires collaboration among healthcare teams, patients, and community resources and adaptable care plans tailored to the individual's circumstances[30].

The above examples highlight the need for participatory models and their potential to redefine care, fostering trust and continuous learning in an ever-changing medical landscape. Technological intervention in healthcare, especially in low-resource setups in underprivileged areas, can be scary for patients and healthcare providers. In such scenarios, our rising participatory health care models best utilize basic user-friendly interfaces and known technology.

5. The Rise of Participatory Models

This dynamic shift from traditional to participatory models is not unique to healthcare. Individuals are similarly regarded as subjects rather than collaborators in various domains such as research, education, and technology. These models emphasise the importance of an individual as a stakeholder, lived experience, and shared decision-making in creating more ethical, responsive, and effective systems. In healthcare, this shift is embodied in the movement toward patient-centred care, a model that treats patients as active partners in their health journey. Several key factors drive this transformation:

- **Increased Health Literacy and Access to Information:** The internet and digital tools have empowered individuals with unprecedented access to medical knowledge. Patients are better informed about their conditions and treatment options, enabling more meaningful dialogue with healthcare professionals.
- **Recognition of Patient Autonomy:** Ethical and legal standards increasingly support individuals' rights to make informed decisions about their care.
- **Evidence of Better Outcomes:** Research has consistently shown that when patients are engaged in their care, they are more likely to adhere to treatment plans, report higher satisfaction, and experience improved health outcomes[31,32]. Feeling heard and involved enhances a patient's investment in their well-being.
- **The Chronic Disease Burden:** Managing chronic illnesses such as diabetes, heart disease, or asthma often requires long-term behavioural changes and sustained engagement. Participatory models are especially valuable in this context, as they help patients take ownership of their health and make informed, lasting changes.
- **Growth of Patient Advocacy Groups:** These organisations amplify patients' voices, provide platforms for shared experiences, and influence healthcare policy and practice. They are vital in ensuring care systems remain responsive to patient needs.

Health professions education is evolving to recognise patients as essential stakeholders, involving them as co-educators and evaluators. This shift is captured by the Patient Health Engagement (PHE) model, which describes a journey towards patients becoming informed and actively involved in their care[33]. This participatory approach extends beyond clinical care to community-based research and user-centred design. Despite benefits, challenges like health literacy and inequities hinder engagement, requiring inclusive strategies. The shift from passive patient to active stakeholder is paving the way for a more integral healthcare system.

This move towards participatory models transforms clinical decisions and data handling through Shared Decision-Making (SDM), a three-stage process involving information sharing, contemplation, and joint agreement. SDM supports patient

autonomy and trust but faces challenges like time constraints. Continuous digital data collection necessitates dynamic consent based on transparency, voluntariness, informedness, ongoing engagement, patient control, and ethical data practices. Participatory Action Research (PAR) further involves patients as co-researchers[34]. Data ethics in the digital age require protecting privacy and ensuring equitable access. Participatory models like SDM and ethical data practices enhance patient-centred care by promoting collaboration and autonomy, building trust and improving outcomes[35]. This philosophy of active engagement and preparation extends beyond direct patient care and finds parallels in innovative educational models, such as the flipped classroom format, which has gained significant traction, particularly in medical education. The following section will focus on the flipped classroom learning model in medical education, depicting the importance of participatory learning. There are various other models for active engagement of students while studying, like small group teaching, ice-breaking sessions, etc. However, we will explore the flipped classroom model and its benefits in medical education.

6. Lessons from the flipped classroom model

The flipped classroom, moving passive learning outside class for active engagement within, has become popular in medical education, accelerated by the pandemic. Using pre-class materials like videos, this student-centred approach enhances student satisfaction and motivation through autonomy, feedback, and peer learning[36]. (Figure 1) Educator engagement is growing but requires institutional support and training. The flipped classroom's principles of engagement, personalisation, and collaboration, supported by digital tools, offer insights for healthcare workshops and patient education, mirroring participatory healthcare's emphasis on preparation, dialogue, and shared decision-making to empower individuals.

The sequence of events and contents in each step of the flipped classroom technique is as follows:

- **Pre-Class Preparation:** Learners engage with instructional content *before* the scheduled class time. The goal of this stage is for students to gain foundational knowledge and exposure to the topic at their own pace. This pre-instructional content can include: videos, readings, quizzes, other interactive materials etc.
- **In-Class Active Learning:** The face-to-face class time is dedicated to active learning activities that build upon the pre-class preparation. This stage focuses on deeper understanding, application of knowledge, and interaction. These activities can include: case studies, hands-on exercises, problem-solving, peer learning, group discussions etc.
- **Follow-up/Reinforcement:** While not explicitly detailed as a formal stage in this text, the effectiveness of the flipped classroom often relies on opportunities for follow-up, clarification and

reinforcement of learning after the in-class activities. This could involve: online discussions, further practice exercises and feedback on in-class work etc.

The Flipped Classroom Learning Journey

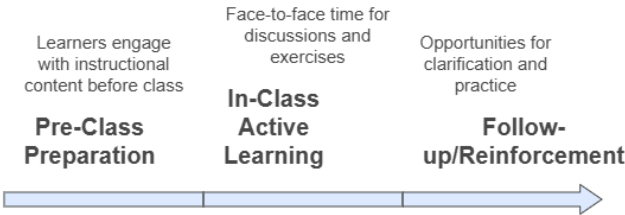


Figure 1: Flipped classroom model workflow

Flipped classrooms highlight the importance of pre-workshop preparation for deeper in-person engagement. With further advancements in the medical field and difficult circumstances, learners need to be spontaneous and can think and communicate freely. Students also have 'skin in the game' as their inputs can directly impact patient outcomes - this incentivises learning and teaches accountability much faster. However, uneven pre-work participation can hinder progress, necessitating clear communication and support structures like online forums. Flexibility in in-person sessions and accountability measures can improve engagement[37]. Therefore, while enforcing an innovative approach towards learning, the flipped classroom technique has its strengths and limitations summarised in Table 1.

Table 1: Strengths and limitations of the flipped classroom technique

Strengths	Limitations
Increased student satisfaction due to learning autonomy[38].	Requires significant institutional support and faculty training.
Enhanced learner motivation through pre-class engagement and peer learning.	Risk of uneven pre-class preparation impacting in-class activities.
Improved knowledge retention via active recall during class time[37,39].	Potential initial unfamiliarity or resistance from faculty and students.

Opportunity for educators to focus on active learning and feedback.	Demands careful planning and resources for quality pre-class materials and engaging in-class sessions.
Aligns with personal preferences for flexible, technology-integrated learning[40].	
Supports deeper cognitive engagement.	
Mirrors principles of participatory healthcare for empowered learning.	

Several measures can be taken to overcome the barriers stated in Table 1 to applying a flipped learning classroom. Creating a supportive culture that emphasises respect, transparency, and open communication helps foster an environment conducive to collaboration. Tailored approaches are also needed to recognise and meet the diverse needs of participants, ensuring that everyone’s perspective is valued. Finally, ongoing evaluation allows for continuous assessment and refinement of participatory practices, ensuring they remain effective and adaptable.

Patients also invariably evaluate their doctors through their outcomes; traditionally, this has operated in closed loops between the patient and the doctor. Therefore, online platforms like the Patient Journey Record (PaJR) and the Case-Based Blended Learning Ecosystem (CBBLE), pioneered by us, facilitate students’ participation actively, learning from patient outcomes, learning for patients, and learning with patients. Driven by this philosophy of participatory engagement and leveraging digital tools for empowerment, we will dive deeper into the tools driving the shift towards participatory learning.

7. Tools Driving the Shift

7.1 Introducing PaJR and CBBLE

The PaJR and the CBBLE are two synergistic digital health tools redefining interactions among patients, clinicians, and learners. The participatory CBBLE framework, which serves as a model for patient-centered scholarship in medical education, has been evolving for several decades across various medical colleges in India. [41] Although PaJR was conceived in 2010 [42], its implementation required advancements in technology, such as the emergence of WhatsApp. Consequently, as many of our patients developed the necessary digital skills, they were eventually motivated to join a dedicated WhatsApp group to share their daily energy input and output data.

Both tools exemplify the concept of participatory medical cognition, where patients’ lived experiences and learners’ critical thinking play dynamic roles in clinical decision-making. This approach is viewed through the lens of the socio-economic

right to health, positioning these tools not only as innovations in clinical education and continuity of care but also as empowering instruments that ensure patients and communities are heard, understood, and engaged in the digital age.

PaJR digitizes patient narratives, capturing longitudinal data that reflects the real-world contexts in which health and illness occur (a detailed explanation can be found in Chapter 2). Meanwhile, CBBLE promotes reflective, collaborative, and experiential learning grounded in real patient cases (as discussed in Chapter 3). Both tools serve to bridge clinical care with learning health systems by integrating patient stories with crowd-sourced knowledge, case-based analytics, and continuous feedback loops.

Learning health systems (LHS) are built upon the continuous integration of data, knowledge, and practice. PaJR and CBBLE act as decentralized engines for this learning cycle, creating bi-directional feedback loops that enhance care delivery and professional education by capturing detailed patient-reported data (via PaJR) and fostering reflective discourse (through CBBLE).

7.2 SWOT Analysis of User-Driven Technologies in Healthcare

Integrating user-driven tools like PaJR and CBBLE within digital health systems reveals a complex interplay of strengths, weaknesses, opportunities, and threats (SWOT). (Figure 2)

Strengths include enhanced patient agency, real-time learning, and democratizing clinical reasoning. The participatory design ensures responsiveness to real-world conditions, which is particularly valuable in under-resourced settings.

Weaknesses lie in digital literacy gaps, scalability limitations, and data interoperability. Without sustained support, user-generated health content risks being undervalued or excluded from clinical decision-making hierarchies.

Opportunities are vast: from enabling decentralized health governance in the Global South to integrating with blockchain-based health records that ensure data sovereignty, tools like PaJR and CBBLE can anchor community-owned learning systems that defy traditional boundaries.

Threats include technocratic interests' co-optation of participatory platforms, ethical breaches in data governance, and the exacerbation of digital divides, particularly for those in low-connectivity environments or with historically excluded voices (e.g., Indigenous knowledge holders, gender minorities, or non-English speakers). This necessitates a human-rights-centered design that prioritizes justice and inclusion over mere efficiency.

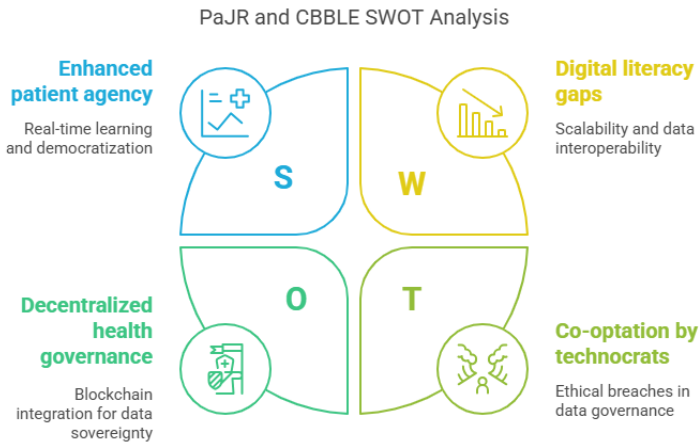


Figure 2: Strengths, Weakness, Opportunities, Threats (SWOT) Analysis of PaJR and CBBLE

Institutional resistance to participatory healthcare persists because entrenched hierarchies often devalue patient narratives as "soft data," prioritising quantitative metrics. This isn't just a technological challenge; it's a fundamental question of whose knowledge is considered valid in clinical settings. Ethical dilemmas further complicate this shift, requiring careful navigation of how community-sourced knowledge integrates with evidence-based practice and how patient privacy is protected in more open environments. Integrating diverse worldviews raises critical questions of epistemic respect and cultural humility, highlighting why overcoming these institutional and ethical hurdles is crucial for truly equitable and participatory healthcare systems.

8. Conclusion

The imperative for a co-created, participatory healthcare system, moving beyond a provider-centric model, has been a central thread. Tools like PaJR and CBBLE exemplify this shift by empowering end-users – patients, caregivers, and learners – as active agents in the healthcare ecosystem, challenging traditional hierarchies and centring lived experiences. Realising this future requires institutions to redistribute epistemic power actively, valuing diverse forms of knowledge and embedding humanistic design and ethical inclusion in all technological interventions. Ultimately, the goal is a healthcare system that leverages collective intelligence to listen better, learn faster, and heal more deeply.

Chapter Summary: Key Messages to Remember

- **Shift to Participatory Healthcare:** The transition from a provider-centric to a co-created, participatory model is a fundamental moral and structural necessity for effective global healthcare.
- **User-Driven Transformation:** Addressing the complexities of healthcare, especially in fragmented landscapes, requires a user-driven approach that challenges traditional paternalism.
- **Diverse Stakeholders:** Patients, caregivers, clinicians, and technologists bring unique and valuable perspectives to the healthcare ecosystem.
- **Participatory Models Offering Adaptive Solutions:** Unlike rigid top-down systems, participatory frameworks provide more adaptable, personalised, and ethically sound approaches to healthcare.
- **Participatory Health is Multifaceted:** Concepts like shared decision-making, informed consent, flipped classrooms, and collaborative care are integral to the rise of participatory health.
- **PaJR and CBBLE:** These digital tools facilitate co-creating care journeys and learning health systems by centering user experiences and knowledge.
- **SWOT Analysis Reveals Key Dynamics:** Integrating user-driven technologies presents strengths in empowerment and learning, weaknesses in digital literacy and scalability, opportunities in decentralised governance, and threats in equity and co-optation.
- **Collective Intelligence Drives Better Outcomes:** Unlocking the collective intelligence of all stakeholders leads to more responsive healthcare systems, more effective learning, and ultimately, more deeply healing.
- **Technological Advancement Must Be Human-Centred:** The socio-economic right to health is best upheld through co-created systems that honour the dignity, voice, and expertise of every individual, rather than solely relying on technocratic expansion.

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