**Unlocking Medical Leadership’s Potential: A Multi-Level Virtuous Circle?**

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Unlocking Medical Leadership’s Potential: A Multi-Level Virtuous Circle?

Wouter A. Keijser MD (corresponding author)
Faculty of Behavioral, Management and Social Sciences (BMS) Change Management and Organizational Behavior (CMOB)
University Twente, Enschede, The Netherlands
DIRMI Foundation, Utrecht, The Netherlands
Postal Address: Pal Maleterstraat 15, 3573PE Utrecht, the Netherlands
Telephone: +31628541565
wouter@keijser.com

Prof. Graeme Martin, PhD
Chair of Management and Director of Research
School of Business
University of Dundee
Dundee, Scotland

Abstract
Medical leadership (ML) has been introduced in many countries, promising to support healthcare services improvement and help further system reform through effective leadership behaviours. Despite some evidence of its success, such lofty promises remain unfulfilled. This paper provides a conceptual framework to analyse ML’s potential in the context of healthcare’s complex, multi-faceted setting. We identify four interrelated levels of analysis, or domains, that influence ML’s potential to transform healthcare delivery. These are: the healthcare ecosystem domain; the professional domain; the organizational domain; and individual doctor domain. We discuss the tensions between the various actors working in and across these domains and argue that greater multi-level and multi-stakeholder collaborative working in healthcare is necessary to reprofessionalize and transform healthcare ecosystems.
INTRODUCTION

The main focus of this paper is to provide a context-specific ‘thinking frame’ that helps doctors and the wider healthcare community to understand medical leadership’s (ML) potential to impact on the scope and pace of change and innovation in different kinds of healthcare systems. ML has emerged over the last decade as a thoughtful attempt to rethink medical professionalism by doctors and their associations and as a major initiative in reforming and improving healthcare service delivery, quality and safety[1]. However, much of ML’s current discourse and practice has focused on individual doctors’ competences, guided by the introduction of various national and regional ML competency frameworks and associated ML training programmes[2, 3, 4]. Although ML can and does contribute to healthcare transformation and system reform[5, 6, 7], we argue its current focus on individual level competences is both limited and limiting because, like traditional leadership theory in general, it risks emphasizing medicine’s ‘muscular individualism’ of competences, traits and behaviours and ‘one-size-fits-all prescriptions for development[8]. We further contend that understanding and realising ML’s potential warrant a more multi-level and context-specific approach that places ML theory and practice in healthcare’s multi-faceted, multi-stakeholder and multi-levelled perspectives.

So, building on a short critique of the extant literature and contemporary changes in healthcare, we have developed a framework that can help practitioners understand and assess ML’s potential impact on transforming different kinds of healthcare systems. Here, we distinguish four levels of analyses, which we call ‘domains’ (Figure 1). These domains represent most, if not all, relevant stakeholders, the multitude of formal regulations, processes, social interactions, and the habitual ways-of-working that govern how daily life in healthcare is constituted. We argue ML has to be understood as one key element of a healthcare ecosystem, which we define as a combination of political, economic and cultural institutions in a region that support transformativne healthcare outcomes, where interdependent actors and factors are coordinated in such a way as to enable productive healthcare innovation. Moreover, since ML mirrors one of society’s most esteemed profession’s attempts at ‘reprofessionalization’, its future success will depend on other healthcare ecosystem actors’ capacity to reflect on the(ir) current status quo and seek novel and significant ways forward. Our focus is on the region because within nation states, there are considerable differences on how healthcare and its professions are organized, such as the United Kingdom and United States[56]. Therefore, by developing this framework, we hope to contribute to the theory and practice of healthcare
reform. We proceed by locating our framework in recent changes in healthcare, outline its theoretical foundations, and then discuss its nature and potential for analysing and advancing ML’s promise.

BACKGROUND TO THE PROBLEM

Medicine’s doctor-centred, hierarchically ordered, professional jurisdictions and primarily monodisciplinary education and enculturation have remained relatively unchanged since the times of Hippocrates of Kos[9, 10]. Accordingly, prototypical identity, status and power arrangements between healthcare professions still characterize much of healthcare’s daily practices[11]. Recently, however, different types of Western healthcare systems are progressively struggling with economic constraints; complex demands of ageing populations; integration of health and social care; implementing information technologies; and more recent innovations such as artificial intelligence[12]. As a consequence, more hybridized forms of healthcare systems have developed, reflecting shifts in patterns of ‘institutional logics’. These logics comprise templates of assumptions, beliefs, rules and practices that guide the interpretations, meanings and actions of various actors in the healthcare field[13, 14, 15]. In healthcare, changes have been triggered by shifting combinations of market, bureaucratic and statist (or political-democratic) logics, which have caused doctors to revisit the traditional medical professional logics that have historically governed national and regional systems of healthcare delivery[15, 16, 17, 18, 56]. Such hybridization, which has led to a questioning of what it means to be a medical professional in increasingly complex healthcare systems, has been an important driving force behind the emergence of doctors’ latest professional guise – that of ‘medical leader’[19]. The ‘promise’ of ML, cloaked in doctors’ emerging role as a ‘leader’, rests in the new non-clinical competencies with which they attempt to answer to growing needs of interdisciplin ary (net)working, co-creative innovation and continuous quality improvement[5]. However, doctors are also well-known for their allegiance to professional autonomy, sovereign medical expertise, ‘occupational closure’, and the ‘hidden curriculum’ in educating the profession’s new members[9, 10, 20, 21]. This status quo bias, often found among senior medical professionals, can and does provide significant opposition to hybridization[10].

Nevertheless, in theory at least, the emergence of ML has the potential to reform or transform national and regional healthcare ecosystems. But this potential will only be realised if there is a contemporaneous and substantial shifting of the status quo of rules and belief systems of other professions (e.g., allied professionals; healthcare management) and those who regulate and govern healthcare systems and organizations (e.g., policy makers; regulatory
bodies; boards; professional associations). This seemingly paradoxical and reciprocal ‘stand-off’ is characteristic of the, often puzzling and wicked, challenges that accompany transformational healthcare change. Questions arise, such as: (How) will ML change the nature of our healthcare ecosystems? And, alternatively: (How) can adequate healthcare ecosystem reform instil adequate ML? Or both? Our answers to these questions are rooted in the non-linear and unpredictable character of transformational change, which often lies juxtaposed to the more linear and predictable ways of solution-finding that exemplify our bio-medical traditions.

Present-day healthcare ecosystems are the product of different combinations of local actors and local political, economic and cultural factors established over many decades, and in some cases, centuries. Thus, the promise of ML in contributing to healthcare ecosystem reform necessitates a multifaceted, historically and contextually-sensitive approach at various levels to enable sustainable change and shifts in professionals’ position and identities[22]. Such reform is also contingent on inter- and intra-system differences, which suggest that one-size-fits-all practices are unlikely to be universally effective. Thus, customizable strategies are probably required to address various local ecosystem contexts. These comprise differences in how healthcare is funded, in the emphasis placed on healthcare domains - e.g., acute care; primary care; mental healthcare; e-health services; public health; and social care - as well as in the differences found among medical specialties. Differences can also be found at the individual level, with doctors exhibiting very different identity motives and personal traits that shape their willingness and ability to accept ecosystem changes[10]. When considering the potential of ML and its development, these distinctions, including those induced by local organizational culture and professional siloes, suggest contextually-specific sets of needs, demands and (re)solutions.

Thus, comprehending the concept of ML as a response to contemporary changes in healthcare ecosystems requires more than just scrutinizing one single profession or viewpoint. Steering transformative processes into advantageous directions (including answering the question of ‘How to unlock the potential of ML?’) warrants a deep understanding of local healthcare ecosystem elements and their dynamics, which we now present in our conceptual framework.

A CONCEPTUAL FRAMEWORK
In developing a conceptual framework, we attempt to simplify healthcare’s complexity by drawing on Scott’s categorization of organizational life and its links with (re)professionalization[23, 24]. We do so by adopting a representation of four dimensions
pointing to different levels of analysis. These four domains reflect the fundamental aspects of a healthcare ecosystem, and jointly represent dynamics of the endless sequence of change in the institutional field of healthcare and its professions such as medicine. These domains are: (1) the healthcare ecosystem domain; (2) the professional domain; (3) the organizational domain; and (4) the individual doctor domain (Figure 1).

Figure 1 Framework for analysing the potential of medical leadership at various institutional levels

***about here***

These domains constitute the classifications of various institutional, organizational and professional forces responsible for the (re)creation and sustainment of frames of meaning and professional identities that jointly dictate what happens in daily-life\[25\]. Furthermore, the conceptual framework encompasses the various (and varying) interdependent actors and factors in a healthcare ecosystem. As we will show, the idea of ML interacts with all four dimensions. In the following paragraphs, we elaborate on our framework by describing the four domains, their interrelatedness and relationship with ML. We conclude with an overview of selected practical tactics and approaches that can further ML, and describe their potential impact, and relevance to the discourse of ML (Table 1).

The Healthcare Ecosystem Domain

We propose the Healthcare Ecosystem Domain as our framework’s first and most ‘macro’ level of analysis. In this domain, we argue, more collaborative oriented governance regulations and arrangements are imperative to effective healthcare reform, as well as to unlocking ML’s potential. Experiences from regions that have successfully legislated for large scale reform show this to be a complex and long-term proposition requiring investments and unconventional approaches in (re)engineering at the more ‘macro’ healthcare system-level\[50, 51\]. To expedite a successful transition from fragmented, siloed and mono-specialist processes towards systems of more flexible and fluid networks, various system-level aspects must be coordinated, such as: legislation; funding structures; accountability regulations; quality schemes; and educational programs. In contrast with changes that follow a one-element-at-a-time implementation approach, such multifaceted realignment of various system-level themes fosters a more
collective, multi-stakeholder, thus ecosystem-type of reform. Ultimately, an ecosystem-level restructuring also provides a more safe ‘landing strip’ for various healthcare professions, including medicine, in finding a new and more adequate balance between “soft (trust, collaboration) and hard (financial incentives) levers”[52 p:54]. Without such synchronous adaptation of the various elements at the macro-level, existing organizational and professional arrangements will risk a continuation of a status-quo bias and traditional fragmented ways of working[9]. For example, legislating for adequately incentivizing collaborative avenues of change can empower (or, if necessary, oblige) medical, nursing, allied health professions and managers (and their linked regulatory and policy bodies) to co-create related intra- and interprofessional standards, mechanisms, policies and educational schemes in order to sustainably produce innovative ways of working. These effects signify the interrelatedness between the current ecosystem-level domain and the other three domains, which we describe in the next sections.

Some regions are investing in forms of intentional collective professional identity ‘re-creation’, for example by implementing planned national clinical leadership programs[5]. Other efforts induce interprofessional collaboration by offering comprehensive and locally tailorable interprofessional teamwork curricula (e.g. TeamSTEPPS[40]). Using regional-level endorsed initiatives, governmental agencies encourage local change and institutional entrepreneurship in a non-formative and co-creative way. This also generates and elevates visible ‘hot spots’ experimenting and role-modelling promising new approaches. Moreover, these tactics support (e.g., regional) directorates in gradually introducing well-evidenced interventions that assist local, field-level change ‘champions’, in particular doctors enacting effective ML. Such top-down endorsement of bottom-level ‘proven’ and peer-supported initiatives can be inspirational, in particular to doctors.

Lastly, we believe that doctors are better placed than many other actors to play an important role in leading at the healthcare ecosystem level because of their education and training. Their analytic capabilities, combined with knowledge of health, disease, treatment and care-processes, as well as their subjective position in allegiance creation, provide indispensable capabilities for reconstructing ways of working[24 p:28]. However, while having the skill, they may lack the will because their powerful positions and professional socialization can also result in significant status-quo bias decision-making regarding significant reform efforts[10][20]. This discrepancy embodies one of the most wicked of challenges in system transformation[53] and represents a further point of tension between the system and professional domains, to which we now turn.
The Professional Domain

Healthcare’s daily routines are influenced through a continuous establishing and redesigning of professional norms, values, identities and behaviours. These dictate what should happen at healthcare’s frontlines[23]. The ideas and identities held by professionals, which serve as their prescriptive, evaluative and obligatory requirements for professional social interactions and behaviours, are also influenced significantly by their professional structures and associations. Therefore, we use the Professional Domain as our second level of analysis, since it entails professional moral, rights, privileges and responsibilities that form doctors’ daily reality, and comprises how they are educated, enculturated and trained throughout their careers and amidst their peers.

Increasingly, interprofessional practice and education are acknowledged as promising new routes towards a new collaborative professionalism[33, 34]. As a consequence, demands for interprofessional practices prompt redesign of formal as well as informal ‘rules of the game’ within and between healthcare professions. This includes anticipatory processes to effectively navigate the shifting of roles and responsibilities between professions[35]. Interdisciplinary healthcare teams, for example, incorporate non-hierarchical and non-linear working in their complex and multi-partner settings, through approaches like inclusive interprofessional sense-making and co-creation[15]. Various elements influencing the wished-for re-embedding of modern interprofessional arrangements that accompany these processes reside in this domain[36].

Followership theory, which stresses the relationships between leaders and followers[37], has given rise to more distributed or shared leadership models, resulting in a more inclusive leadership concept affecting all professions[28, 38, 39]. With evidence for interprofessional teamwork as a key-determinant for high quality care on the rise, elements that enhance or impede (shared) leadership’s effectiveness in and across interdisciplinary teams is increasingly regarded as critical[30, 40]. Thus, it is no surprise that recent ML competency frameworks firmly emphasize doctors’ ‘soft’ competencies aimed at collaborating with others, for example in multidisciplinary teams[41]. Inevitably, there is a growing need for new interprofessional principles and arrangements that exceed ancient mono-disciplinary paradigms in healthcare’s education and practice, which have characterized healthcare’s archetypical doctor-nurse dyadic nature for centuries[42]. These changes, we argue, require medical professional bodies in particular, but also policymakers and regulators, educational institutions, healthcare organizations and many other bodies to rethink various aspects of 21st Century’s
healthcare professionalism for the benefit of their pluriform constituencies and the public at large. These proposed changes demonstrate the relatedness between the Healthcare Ecosystem and Professional Domain as well as our next domain reflecting perspectives of healthcare services delivery: the 24/7 challenge of adequately synthesizing various professional activity that constitutes healthcare, scaffolded by appropriate resourcing and management.

The Organizational Domain

In the global pursuit for value-based and integrated care, day-to-day healthcare operations increasingly rely on smooth interdepartmental and organization networking[43]. Also, the quality, timeliness, inclusiveness and safety of contemporary healthcare services are gradually built on more intense interprofessional ‘relational coordination’ (i.e., sharing values; being respectful and trusting; communicating more accurately, frequently and timeously)[44], while the once widely-separated siloes of social care systems, healthcare organizations, and various community-based services are rushing to deliver on their collective responsibility for citizens’ seamless care[43]. This new organizational perspective, focusing on the region where newly-constituted ‘service users’ (rather than patients) live, work and meet with professionals, digitally or physically, requires a divesting of the old ways of working. Here, ML’s explicit focus on more collaborative forms of practice and innovation holds a promise of facilitating such wide-ranging integration. Moreover, doctors are well-positioned as change agents for having “first-hand experience of the work under consideration”, being “trusted by fellow-workers (and patients)” and providing “to the organization of work a flexible, immediate, policy-oriented dynamism and pragmatic adaptability”[45 p:87].

However, realizing effective integrated care at an ecosystem level involves dealing with complex transformational change issue and the corresponding “diffuse unreliability, aversion to responsibility, rigid authoritarianism, rule-resistant incompetence and paternalism” associated with it[45 p:87]. A variety of researchers and practitioners have reported on the significance of creating a local receptive context for change as a prerequisite for such reforms[46, 50, 51]. This action decrees wise investments as well as role-modelling effective leadership at all organizational levels, including board, executive, clinical and managerial. Scholars also suggest that organizations and their executives have to devote considerable time and resources for adequate change management and infrastructures to implement new practices[47, 48, 49]. Eventually, organizations, regulators, managers and doctors who consider promoting ML as a cornerstone of forming modern regional care networks, are advised to create learning organizations that “adapt better to rapid environmental change and implement quality
improvement practices more quickly”[49 p:287]. Incidentally, such transformative settings also provide excellent practice-based learning opportunities, essential to medical and other leadership development: a two-sided sword of organizations’ investments in their ‘social capital’[4, 9, 45]. The overarching aim and corresponding expectation is that contemporary top-down endorsed, middle-management enhanced and bottom-up co-created healthcare transformation will encompass improvement of organizational performances in various hard and soft dimensions[26, 27], which also requires individual doctors to have a strong voice in how they are led and how change is navigated. This focus on voice presages our fourth and last domain.

The Individual Doctor Domain

The Individual Doctor Domain echoes Scott’s institutional ‘cultural-cognitive’ dimension of individuals and groups that, often unconsciously, agree upon various social as well as ‘unwritten’ aspects of their institutional life[23]. It is in this domain, that daily reality is reflected; in other words: what actually happens in work life. It is also at this level that doctors are being increasingly challenged to justify their position, status and knowledge sovereignty in healthcare and society. Patients and other stakeholders demand more time and attention, while bureaucratic accountability processes, intensified communication and information exchange within ever expanding interprofessional networks contribute to doctors’ fatigue and burn-out[26, 27]. As a result, doctors have responded variously to these pressures, for example, through opposition, reluctance or willing acceptance to change or by taking up hybrid managerial-clinical functions and, ultimately, by incorporating ML in their professional repertoire of competencies and identities[10, 20]. Thus, growing numbers of doctors participate in ML competency trainings, offered at various stages during their careers [17, 28, 29]. Furthermore, new competency frameworks provide them generic taxonomies and a first generation of ML competency assessment tools supports benchmarking and monitoring of their ML proficiency and development efforts[20, 30].

Despite ML’s appealing intentions, however, its emergence is accompanied by various forms of resistance and ambiguity at the individual doctor level. First, ML can generate negative emotions among some doctors, because they doubt the motivations of those peers who occupy or aspire to formal leadership positions[20]. Doctors enacting managerial leadership are sometimes seen as ‘heretics’, ‘crossing lines in the sand’ or going to the ‘dark side’[1, 10]. Additionally, doctors often perceive competency frameworks as utopian, rendering them as super-professionals or as ‘Jacks-of-all-trades’ and deflecting them from their primary role of
providing patient care[31, p1]. Thirdly, many clinicians see ML education as an unwelcome extra burden onto their already overloaded clinical work as well as obligations in continuous education and revalidation. Finally, ML encourages doctors at times to take a ‘back seat’ or share leadership with other clinical professions[15]. To some doctors these are awkward and unwelcome new propositions, especially among those at later stages in their career[28].

Arguably, the design, planning and delivery of ML training, often hosted by professional associations or ‘in house’ by healthcare organizations[3, 4, 6, 32], need to reflect on such contestations. These also need to take into account that generic or one-size-fits-all approaches can be inappropriate at the level of individual doctors. To be effective, ML development activities should be adequately tailored to the perspectives of doctors’ specialties, varying from clinical setting (e.g., geography; payment structure; clinic size; population), medical specialty, career stage, experiential repertoire, to their individual traits and personal needs and interests. Ultimately, the often relatively time-consuming, hence highly-resourced and expensive ML development activities will gain greater legitimacy when well-aligned with the individual, but also when rooted in high levels of regional healthcare ecosystem appropriateness[6, 32]. Therefore, we reason, ML development at the individual doctor level is importantly informed by professional, organizational and ecosystem-level perspectives, illuminated in the preceding sections.

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<th>Domain</th>
<th>Tactics and Approaches</th>
<th>Effects</th>
<th>Relevance to ML</th>
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<td><strong>Healthcare Ecosystem</strong></td>
<td>Incentivize more interprofessional performance and value-creation</td>
<td>Co-creative rethinking and execution of interprofessional arrangements</td>
<td>ML enables doctors to effectively co-design and - lead interprofessional practise</td>
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<td>Legislate for inter-sectoral and -organizational collaboration in healthcare delivery and professional education</td>
<td>Intentional agency to span old ‘boundaries’ and redesign processes fostering patient-centred care</td>
<td>Creation of practice-based ‘spaces’ for ML learning</td>
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<td>Induce principles of collaborative governance at all levels</td>
<td>Multi-level and homogeneous regulatory and managerial activities that instigate and sustain change and reform</td>
<td>Direct ML’s discourse into profitable directions, in contrast to, for example, re-emergence of ‘medical dominance’</td>
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<td><strong>Professional</strong></td>
<td>Encourage non-medical professions to rethink their professional leadership</td>
<td>Multi-disciplinary contribution to collective ‘clinical leadership’ paradigm</td>
<td>Medical profession role-models re-professionalization towards shared leadership-based working</td>
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<td>Medical associations focus on renewing medicine’s social ‘contract’ with society</td>
<td>Positioning and empowering medical professionals as ambassadors of transformation</td>
<td>Doctors well-positioned to facilitate and uphold (or resist …) change</td>
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<td>Coincide leadership development of healthcare professions and healthcare managers</td>
<td>Bridging the clinician-management ‘gap’ and strengthening of wicked problem-solving proficiency</td>
<td>Infusion of non-clinical management perspectives in ML development and vice versa</td>
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<td><strong>Organizational</strong></td>
<td>Integrate ML development in organizational development and quality improvement initiatives</td>
<td>Medical engagement enhances success and reduces risk of tribal issues</td>
<td>Interdisciplinary projects provide learning platform for ML</td>
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<td>Invest in inter-professional education and inter-organizational learning</td>
<td>Optimal transition of modern workforce between pre-clinical education and clinical practice</td>
<td>Engraining both doctors’ leadership potential and clinical patient-centred focus in patient-pathways</td>
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<td>Invest in research and development of quality directives relating ML training and certification of coaches</td>
<td>Contribution to (current thin) body of evidence for effective ML training and absent quality regulations</td>
<td>(More) evidence-based ML best practices and education</td>
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<td><strong>Individual doctor</strong></td>
<td>Tailor individual ML development activities to, for example, medical specialty or local organization</td>
<td>Augmenting effectiveness and return-on-investment of (often resource-intensive) ML training</td>
<td>Avoid unnecessary or inadequate use of clinical time (demotivating physicians)</td>
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<td>Use ML development portfolio</td>
<td>Adequate focus and monitoring of ML development activities</td>
<td>ML integrated in (continuing) medical education</td>
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<td>Stimulate doctors to identify with new medical professionalism and cultivate their most suitable ML styles</td>
<td>Doctors contribute to their best individual abilities as members of organization and team(s)</td>
<td>ML is not a ‘Jack-of-all-trades’ concept and is amplified by intrinsic motivation and identity change</td>
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DISCUSSION

We have argued that doctors can help establish a new discourse of professionalism by role-modelling continuous patient-centeredness, interprofessional value-congruence and allegiance creation[42] and by leading in a co-constructing, inclusive way[28]. More reciprocal interprofessional collaboration can help professions to convene in discussing the abundance of paradoxical issues that characterize current modes of care that see service users as whole people rather than patients to be treated. Despite their historical origins as an elite, sovereign profession with a strong status quo bias, doctors’ extended training and distinct patient-centred views render them capable of understanding and addressing contradictory arguments of clinical and managerial colleagues in shared decision-making and as potential innovators in healthcare ecosystems[10, 54]. This potential for ML to innovate helps counter an over-reliance on biomedically oriented clinical protocols, policies, managerial enforcements and bureaucracies. Rightly positioned, organised and having identity motives consistent with ecosystem change, doctors who are trained in effective ML could trail-blaze more favourable professional ways of healthcare reform[10,18]. Such ML can produce high degrees of medical engagement, which helps avert the often-disruptive, hence intimidating, changes and tribal reactions that accompany the re-design of interprofessional arrangements and related their logics and jurisdictions. However, doctors also need to be sufficiently supported in rebalancing their extensive patient-focused clinical expertise with such new skills in organizing leadership and improvement in healthcare ecosystems. Therefore, as we have tried to show in our paper, much remains in the hands of others at diverse levels, to facilitate this already overburdened group of medical experts. Ultimately, we contend, unconventional collaboration between the various stakeholders represented in the four domains, can prevent doctors’ new cloak of ML from evolving into an undesirable ‘Trojan horse’ of a professional reclaiming of traditional institutional position, sovereignty and status quo bias.

In this paper we extend the scope of ML beyond individual doctors’ training and performance in their relatively new role of ‘leader’[2]. Explaining ML from four different, yet interrelated, viewpoints, we provide a framework that helps explain impediments in healthcare ecosystem reform that often sprout from deeply rooted medical professional embeddedness. Moreover, as we exemplified in Table 1, the framework helps identifying (often less-conventional) ways to mitigate those barriers, for example through collaborative, multi-level and multi-stakeholder approaches that overarch existing principles[52, 55].
Our framework is not a universalistic recipe: it is intended as a ‘thinking model’ for all healthcare’s stakeholders to distinguish and rethink their individual, vastly changing, positions and enactments amidst their colleagues in local settings and in regard to other related groups or bodies. Central to this framework, we position the recently-emerged concept of leadership of the medical profession, which we find currently trail-blazing by redefining its professional identity[10]. In doing so, we propose medicine could be seen as role-modelling for other professions’ agentic work and stimulating their non-medical colleagues to also courageously start or proceed in exploring their leadership potential. As we have tried to lay out above, those at the highest managerial, political and administrative positions could follow these trails by finding unconventional collaborative ways of governance and management. In return, this could facilitate other actors in the pluralistic field of healthcare, such as educationalists, administrators, legislators, management, directorates, coaches as well as doctors in taking up leadership to co-create well-aligned new ways of providing healthcare to our patients.

CONCLUSIONS

The logics that regulate tomorrows’ healthcare are created while we work, re-think and re-create todays’ routines. Attempts to steer this eternal process more deliberately are a difficult as well as a responsible task for all involved in healthcare service delivery, governance and management. We acknowledge that health systems and settings vary greatly, which is why we have used the regionally-focused healthcare ecosystems perspective. In so doing, we hope this paper contributes to reform efforts, for example by using our framework to differentiate between the various elements and stakeholders that reflect healthcare’s complex, systemic nature. Unlocking the potential of ML, alike many other new concepts that arise during times of transformation, requires bold thinking and acting, daring entering new territories and creating new structures. Moving away from “relatively narrow, single-levelled programmatic change strategies”[49 p:282] towards multi-level and multi-stakeholder ecosystem reform, could offer us leverage for wise creations from which our service users will benefit.

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**Contributors:** WK and GM both conceptualized the framework and drafted the manuscript. Both authors have approved the final version to be published and are accountable for all aspects of the work.

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