The Resilience of the Leisure and Care Economy: Human-Centred Niches in an AI-Driven Labour Market

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Abstract— **As Artificial Intelligence (AI) is expected to automate up to 30% of current tasks by 2030, it is transforming the structure of work across sectors. Amid this ongoing shift, the Leisure and Care Economy emerges as a sector offering adaptable, future-aligned trajectories. Human-centric professions like wellness instruction, pet care, and craftsmanship represent occupational niches that may benefit from technological advances, building synergies while preserving their essentially human character. This extended abstract proposes the Human-Centric Resilience Model, rooted in Self-Determination Theory and symbolic capital, to examine why these roles endure, evolve, or even grow in symbolic and practical value. The model highlights the distinctive combination of emotional intelligence, physical dexterity, and adaptability as a foundation for this resilience. Drawing on occupational data from O*NET, this paper underscores the economic and social value of these professions. While AI enhances efficiency in routine tasks, multimodal large language models still struggle with complex human interaction. As authentic connections become rarer, such professions may gain premium status. Policy-led training and social revaluation can help build sustainable, fulfilling careers, offering a new perspective on human-AI complementarity in a transforming society.**

Keywords—AI and labour; human-centric work; leisure and care economy; emotional intelligence; automation resilience.

I. INTRODUCTION

Artificial intelligence (AI) is reshaping labour markets, with up to 30 % of current tasks projected to be automated by 2030 [1][2]. While automation redefines many cognitive and routine roles, occupations often labelled low-skilled within the Leisure and Care Economy, such as wellness, pet care, and craftsmanship, appear as adaptable niches because they depend on emotional engagement, fine motor skills, and situational adaptability [3]. As technology frees up more leisure time [2], demand for authentic human interaction rises; yet these professions remain largely overlooked in labour-market debates despite their growing psychological and social importance [4]. This extended abstract introduces the Human-Centric Resilience Model, a conceptual framework that draws on occupational data and sociopsychological theory to understand why certain emotionally and physically embodied professions retain value amid automation. Beyond its conceptual contribution, the model offers a basis for further research, vocational training, and policy development. In Section II, the theoretical underpinnings of the Human-Centric Resilience Model are introduced. Section III explores the role and limitations of AI in complementing these professions. Section IV discusses societal implications, while Section V outlines policy considerations. Section VI concludes with reflections and directions for future research.

II. HUMAN-CENTRIC RESILIENCE MODEL

The Human-Centric Resilience Model draws on Self-Determination Theory (SDT) [5] and Bourdieu's concept of symbolic capital [6] to identify key attributes that help certain professions resist automation: emotional intelligence, physical dexterity, and adaptability in dynamic environments. In contrast to task-based automation models [1], this framework highlights the psychological and symbolic dimensions of human work, offering a fresh perspective on labour resilience. According to SDT, roles that support autonomy, competence, and relatedness enhance intrinsic motivation, which in turn improves service quality in emotionally rich professions, such as yoga instruction or pet care. While often pursued out of passion, these roles are frequently perceived as fallback options due to their low social status, an image the model seeks to challenge. Drawing on symbolic capital, it reframes them as socially valuable for their authenticity, suggesting they may gain premium status as genuine human interaction becomes increasingly rare [6].

What distinguishes the model is not the presence of any one attribute, but the interplay of all three: emotional intelligence, dexterity, and adaptability, as seen in roles like pet care, where skilled task execution and authentic client engagement combine to resist automation. The model applies O*NET occupational data to assess these features [7]. However, because O*NET does not fully capture embodied competencies, such as finger dexterity, tactile sensitivity, and improvisational responsiveness, complementary data from national vocational training standards and embodied skill frameworks will also be integrated. The model will thus be further developed and statistically validated as part of ongoing doctoral research. This interdisciplinary approach links social psychology, economics, and AI research, contributing a novel framework for understanding human–AI complementarity.

The Human-Centric Resilience Model intersects with labour segmentation theory, which highlights how economic and symbolic hierarchies can shift across occupational

categories, but introduces a symbolic dimension that extends beyond traditional economic dichotomies [8]. While the Leisure and Care Economy has historically occupied a marginal or feminised position within secondary labour markets, its roles may gain revaluation in an AI-driven society. Drawing on Bourdieu's concept of symbolic capital [6], the model suggests that scarcity, authenticity, and embodied skill can elevate the status of professions that resist standardisation and automation. As AI increasingly replaces routine cognitive labour, the relative value of human traits, such as emotional presence, touch, and improvisational responsiveness, may rise, particularly in cultural contexts that value relational depth. According to O*NET projections, many of these professions, including wellness instructors, animal care specialists, personal service providers, and skilled tradespeople in hands-on, client-facing roles, are already classified as "Bright Outlook" occupations, indicating high demand and rapid growth [7]. Thus, this economy represents not only a resilient niche but a potential reordering of what society deems premium and desirable work, extending beyond traditional metrics of formal skills to include trust, authenticity, and human presence, as labour market dynamics already reflect emerging shortages in wellness, care, and craft sectors [2][3][4].

While the model provides a useful framework, its generalisability may be shaped by cultural norms, economic structures, and local labour market conditions. Emotional intelligence, dexterity, and adaptability are not universally measured or valued in the same way, which may influence the resilience of these roles across different contexts. Moreover, the model should not be interpreted as predictive for all professions within the Leisure and Care Economy but rather as a lens to examine occupational patterns that combine human authenticity with embodied skill. Further empirical research is needed to validate and refine the model's applicability across regions and sectors.

III. AI Complementarity and Limitations

AI can support human-centric professions by taking over routine tasks like scheduling or data management, allowing workers to focus on what they do best: building relationships and offering personalised care. In data-heavy roles, for instance, generative AI has been shown to improve task efficiency by 5–9 %, freeing up time for more meaningful human interaction [9]. However, limitations remain. Multimodal large language models still struggle with nuanced social understanding and cannot simulate genuine emotional attunement [10]. Likewise, humanoid robots face ongoing challenges in replicating human dexterity and adaptive behaviour in real-world settings [11]. These technical constraints, paired with concerns about depersonalisation in robotic caregiving [12], reinforce the enduring value of human-led services. While AI is increasingly capable of mimicking empathy and emotional resonance in conversation, challenges remain where these qualities must be coupled with physical dexterity and real-time adaptation in unstructured, socially complex environments. This underlines the continued need for collaborative human-AI systems, particularly in the Leisure and Care Economy.

Recent developments in Human-Computer Interaction (HCI), Human-Robot Interaction (HRI), and socially aware AI further reinforce the relevance of the Human-Centric Resilience Model. Even within professions that exhibit resilience to automation, workers must adapt to evolving tools, workflows, and expectations. Lifelong learning is becoming less about formal credentials and more about sustained engagement with dynamic technologies. Studies on personalised robotic systems and adaptive human-robot learning architectures show that human-centric roles increasingly involve building synergies with technology, not resisting it [13][14][15][16]. At the same time, persistent challenges, such as robotic limitations in unstructured environments or the public's cautious trust in continual-learning (CL) robots, highlight why emotionally attuned, situationally adaptable human work remains indispensable in care and leisure domains. Moreover, recent work on communicating robot learning underscores the importance of explainability and multimodal feedback for co-adaptation, trust-building, and collaborative interaction between humans and machines [17]. These findings support adaptability not only as a shield against obsolescence but as a bridge to meaningful human-AI complementarity.

IV. Societal and Policy Implications

This section considers the societal dynamics and policy factors that can strengthen the positive effects of the Human-Centric Resilience Model, recognising that the patterns it captures are already emerging and can be reinforced under favourable conditions.

A. Societal implications

The Human-Centric Resilience Model highlights emotional intelligence and adaptability as qualities that remain in demand as clients increasingly seek authentic interpersonal experiences, rooted in the psychological need for relatedness [5]. The growing popularity of personalised wellness services has brought new attention to the Leisure and Care Economy, yet these professions still require societal revaluation to reflect their emotional and cognitive significance [4]. Sustained interest in such roles, however, depends on broader factors, including economic stability, technological shifts, and individual attitudes toward AI and robotics, all of which shape client trust in care and leisure services [18][19]. These complex dynamics reinforce the model's relevance while underscoring the need for further research into its cross-sector and cross-cultural applicability.

B. Policy Implications

To unlock the potential of the Leisure and Care Economy, policies should support vocational training that combines emotional intelligence with digital literacy, equipping workers to use AI tools without losing the human dimension of their roles. Public campaigns can help reframe these professions as essential, purpose-driven careers that foster authentic connection and emotional resilience in an increasingly automated and socially fragmented world [5].

V. CONCLUSION

The Leisure and Care Economy shows unexpected resistance to automation because its work is fundamentally human-centric, rooted in emotional intelligence, dexterity, and on-the-spot adaptability. The Human-Centric Resilience Model offers a new lens on this resilience by foregrounding psychological and symbolic dimensions often missed in task-based forecasts. Although the model is not a panacea for the wider labour-market disruptions brought by AI, it spotlights a specific segment, frequently dismissed as low-skill and low-wage, that merits strategic attention. Revaluing these professions through targeted training and policy support can create sustainable, fulfilling careers and help preserve genuine human connection in an increasingly automated society. Applicability will, however, differ across cultural and economic contexts, underscoring the need for further empirical research. Overall, this work adds a practical, human-centred perspective to ongoing conversations about effective human–AI collaboration. While the model is theoretical, it offers practical insights into workforce development and policy-making in sectors where human presence remains a core value.

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