Generative AI's Impact on Organizational Structures: An Analysis in Collaboration with ChatGPT

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Abstract

Artificial intelligence has been rapidly increasing in sophistication and impact, reinforcing discussions of its extensive potential to disrupt jobs and organizations. This paper investigates the disruptive potential of generative artificial intelligence (genAI) in organizations by investigating its impact on organizational structures for core business functions as work re-design occurs with the introduction of genAI. Our analysis investigates the impacts of genAI, but we also use genAI as a partner, in collaboration with the authors. Data from the O*Net 2023 database is utilized to consolidate a list of 85 corporate knowledge worker roles and (associated skill levels), as part of our analysis, ChatGPT contributed its assessment as to which roles genAI will take over partly or fully in the near future. Our analysis led to a “flat” organization structure which allowed the surfacing of the extent of impact genAI will have on roles and, in turn, organizational structures. Results suggest that use of genAI is accelerating the trend of flattening hierarchies and will lead to more independent teams with joint Human-AI capability. Finally, we observe that AI is already on a disruptive trajectory. Individuals and organizations not engaging with the potential of genAI, and the expected organizational changes, are at serious risk of underperformance, role redundancy, and negative outcomes from the uncontrolled use of genAI.

1 Introduction

Generative artificial intelligence (GenAI), is rapidly transforming organizational landscapes. Unlike earlier waves of AI and digitalization, which primarily targeted routine tasks, genAI is now poised to revolutionize areas previously untouched by automation, including those requiring basic creativity and nuanced communication (Ghatak, 2023). These advancements are not only reshaping individual roles but are also expected to drive significant changes in organizational structures.

Organizational structures ensure that responsibilities and functional areas are efficiently assigned to employees since an individual at the top of an organization (typically the CEO) cannot oversee everything in person. Thus, it is shared. Moreover, humans can only actively manage a certain number of social contacts, and personally interact with a limited number, so organizational units are required to ensure functionality of an organization. The introduction of genAI has enabled two main aspects in organizations. First, knowledge in the organization can be made easily accessible to every member of an organization, even if one has just started the job. Second, repetitive tasks can be completed in part by machines. As a result, more activities can be completed by genAI, with activities requiring human judgement remaining for humans (Hinsliff, 2023). However, to date, there has been no holistic analysis of the impacts of genAI on organization structures for core organizational functions, (Latto, et al., 2025), based on an analysis of its impacts on specific roles. Hence, in our study, we inquire how knowledge worker roles will change, re-designing work and how these changes will affect organizational structures.

Utilizing AI tools is not just a current issue for knowledge work organizations; it is also becoming increasingly relevant in academic research. Tools such as ChatGPT, NotebookLM, and Microsoft’s Copilot provide new opportunities, but their emergence also raises important questions about the

research process and ethics. While studies, including those summarized by Rahman et al. (2023), indicate that genAI is not yet suitable for conducting full empirical studies, they argue it can be effectively utilized for specific elements of the research process. In this paper, we explore this idea by integrating ChatGPT as a member of the research team alongside four human researchers to assist with analysis. As such, we employ a novel approach (Blok, et al, 2013) utilizing ChatGPT itself, to further inform our understanding of the situation. ChatGPT was selected as the genAI 'team member' due to its ability to perform at deductive reasoning (Glickman, M., & Zhang, Y., 2024). Throughout this research, developing a team to include ChatGPT, influenced how the research team was structured. ChatGPT filled the role of 'research assistant', completing initial analysis after being given a prompt from the human, saving hours on initial findings which could then be verified and expanded on with literature and expertise.

Once we assess the current impacts of genAI on knowledge work, we will then assess what this would look like from an organizational structure (based on current organizational structures and practices) with a view to understand the impacts to roles, followed by a snapshot review of what we know about genAI today to identify where future research could be focused with the topic of genAI impact on organizational structures. A view of likely near-term impacts – which are already momentous – will sensitize us to the possibility of even more extensive disruption in the medium and longer term.

We provide a holistic view of the organizational changes that are likely to result from the uptake of genAI. An improved understanding of this will enable organizations to take steps to avoid the large-scale disruptions and organizational failures and prepare for this disruptive new technology. We also identify areas for future research to further our collective understanding on these impacts in a rapidly evolving environment.

The following sections outline the research topic background, methodology, findings, discussion and conclusions. Following this, we reflect on completing data analysis utilizing ChatGPT to gather additional insights on the topic of AI impact on organizational structures.

2 Background and Related Work

2.1 GenAI and its impact on how organizations work

Artificial intelligence is not a single technology, but a wide range of technologies that are developing independently, while also creating 'combinatorial' effects as independently developed capabilities interact to create new capabilities. There are many genAI technologies under development, in use in highly specialized contexts, for example, genAI is being investigated to boost the thinking skills of commanders of nuclear submarines, (Wilson, 2020), to read chest x-rays (King, 2018), and to support investment decisions (Ashta & Herrmann, 2021). Additionally, genAI is expanding the organizational toolkit with tools such as Copilot, being used, for example, in Excel for data analysis and developing artifacts in Word and PowerPoint (Spataro, 2023). The European Commission, in 2023, updated their taxonomy of genAI capability that includes reasoning (knowledge representation and automated

reasoning); planning (planning and scheduling, searching, and optimization); machine learning; and natural language processing. We should assume that tools such as ChatGPT, while LLM-based, can draw on knowledge and extant capabilities in all these listed areas. There are many benefits to the introduction of genAI in organizations, such as the streamlining of activities like recruiting, through to loan assessments (Gil et al. 2019), integrating genAI causes competitive advantage (or defense against disruptive change) through enhancing strategic decision-making processes and increased performance, and reduces the requirement for menial tasks to be completed by humans through process automation, and can assist in customer relations and communication (Borges et al. 2021). However, there are also concerns relating to privacy of information, security of the systems, the current issue around genAI hallucinating outcomes (Birhane et al. 2023), bias of algorithms (Zhai, et al., 2024), data protection (Rezaei, et al., 2024) and the loss of knowledge associated to automating tasks (Soma, et al, 2022), which organizations need to be aware of when implementing and using genAI.

GenAI is already being integrated into technologies (e.g., Microsoft's Copilot, SAP's Joule), regardless of the concerns and challenges currently existing, it will likely only become more integrated with our everyday lives. Some organizations are already embracing genAI to increase productivity, such as Akash Nigam, founder of Genies, who has purchased OpenAI subscriptions for all employees with the encouragement for employees to then use it in any, and every, aspect of their work (Mok, 2023). Strategically implementing such technologies is showing emerging themes of how roles, and work design, is changing through the adoption of genAI (Woodruff et al., 2024).

2.2 AI and organizational structures

For most of the 20th century, until the present day, Tayloristic "scientific" management based on division of labour has dominated thinking about organizational roles (Galpin, 2007). There are several variations on this theme, including hierarchical structures with multiple layers of management, and flat structures with few layers between management and front-line staff (shown in figure 1), as well as divisional structures based around locations, and network structures that emphasize horizontal relationships between colleagues at similar organizational levels, as well as relationships with supervising manager (Williams, 2023).

In line with other approaches, lean management has contributed to focus more on process-oriented organizational structures instead of functions so that collaborations are formed according to their process assignments (Womack & Jones, 2003). Moreover, the role of independently acting employees and a collaboration is promoted for which information and communication technology enables a higher empowerment which means not to follow hierarchical orders only (Leyer, et al, 2019).

Although there is agreement that genAI will be embedded, to some degree, in organizations in future, there is a lack of understanding around exactly which roles, the quantity of roles, and the severity of impact genAI could have on organizations when considered as a whole. Studies have been conducted on the likely impacts of genAI on specific functional areas, e.g., FinTech (Cao et al., 2021, Ashta & Herrman, 2021) and human resource management (Vrontis et al., 2022; Yawalkar, 2019). There is however limited

evidence of more substantial research being completed on how genAI impacts organizational structures for core business functions, primarily through the implementation of technologies enhancing productivity and collaboration. Research is also seemingly in agreement that when organizations implement new technologies, they are disruptive, they create opportunities, risks, and challenges (Skog, et al, 2018). Skog et al. (2018) states, “When firms face the threat of digital disruption there is often an acute need to react due to the rapidity and systemic nature of environmental change along with diminishing business results”. We are already seeing the beginning of a genAI adoption wave with potential for widespread disruption.

In order to analyze the technological impacts, we draw on Frey & Osborne’s (2017) research regarding the probabilities of which roles would be susceptible to computerization. Frey & Osborne stated, “Our model predicts that most workers in transportation and logistics occupations, together with the bulk of office and administrative support workers, and labour in production occupations, are at risk.” (Frey and Osborne 2017). Although Frey & Osborne (2017) do not directly address the impact these role changes will have on organizational structures, their research provides an opportunity for us to develop this understanding further and analyze the impacts in relation to genAI on organizational structures. Additionally, we can draw on important learnings such as Frey & Osborne’s closing statement “For workers to win the race, however, they will have to acquire creative and social skills” (Frey and Osborne, 2017), which is particularly relevant when assessing the change which genAI will bring to corporate organizations and how employees will need to adapt, and advance their human capabilities and competencies, in order to move with the impending changes rather than be replaced by genAI (Paschen, et al., 2020).

Drawing these threads together, the ability of genAI is already in the public domain, ready to disrupt employees roles and organizational structures. Anecdotally, many individuals are already using ChatGPT, among other tools, to improve their productivity. However, the full extent of impact that can be expected, and the impact on organizational structures, has received little attention.

3 Method: Identifying GenAI Impact On Organizational Models Together With ChatGPT

We take a hybrid approach, using ChatGPT and human analysis, to discover a holistic understanding of genAI’s impact on roles and structures. Chubb et al’s (2022) research into using AI within academic research processes identified a number of positive and negative outcomes. Outlining that caution should be expressed when using an AI tool within research due to learned biases and plagiarism. However, more positively, using AI in research allows for an interdisciplinary view which may otherwise not be achieved, additionally, ChatGPT has the ability to process data more efficiently than its human counterpart, reaching outcomes in an effective manner. By coupling AI analysis with human analysis, identification of patterns in data and predictions on future expectations are able to be made (Chubb et al., 2022).

Clear rules and guidelines for the use of AI in research are being published by many journals (e.g., Business Horizons; Academy of Management; Elsevier) with a focus on; 1. what is appropriate use of AI in articles, and 2. how this should be disclosed to readers, as well as 3. whether ChatGPT and other AI tools can be considered an author. Informed by these guidelines, we utilize both the skills of humans and that of ChatGPT, acknowledging the restrictions of the counterparts, including biases, ChatGPT's time bound training data (we used a version which had the last data update from June 2024 (OpenAI, 2025)), and the risk of hallucinated outputs (Birhane et al. 2023). To mitigate these risks and restrictions of ChatGPT, we appointed a human researcher as Team Lead and included a step in our methodology to assess human and ChatGPT analysis side-by-side to identify discrepancies in findings prior to drawing conclusions.

We used a hybrid approach where both ChatGPT and human analysis was completed in parallel, including multiple analyses such as visual, data, and literature/grey-literature review to ensure a holistic review of the issue can be understood (Paré et al, 2015). This novel approach allowed a multi-faceted analysis of the data with the assistance of genAI to assist in our understanding of the problem, context, and implications for consideration against organizational structures, allowing for a unique perspective on the data.

In order to ensure minimal risk of hallucinated results, a side-by-side comparison was completed between the ChatGPT outputs and our own human analysis (as described in the 'Data Analysis' phase in figure 2). ChatGPT was not used in any other elements of this research paper, other than the two steps relating to the query, listed alongside 'ChatGPT Query' in figure 2.

Step one: Role Selection

The O*Net, 2023 database was selected as it had a strong list of roles for use in our analysis and included skills associated to each role with the level required for delivery. The initial list contained 873 roles, we removed industries which were not our focus, including education, trade, hospitality and medical. To ensure all data would be of value, we removed any roles which had no skill data associated to it. This left us with 85 knowledge work roles for further assessment (see Appendix for full compiled table).

Step two: ChatGPT Query

Prior to any further human analysis, the 85 roles were provided to ChatGPT with the query "Based on what you know, can you please read the following roles and create a table, adding two filled in columns. Column one should be the role I provide; column two, which roles are likely to be replaced by generative AI; and column three, which skills specifically for the role will be replaced by generative AI". Note: only the role column was given (see appendix).

Step three: Organizational Structure Review

In isolation to step two, an organizational structure review was completed by the human researchers. Four core structures were analysed using literature to determine common structures seen in corporate organizations today. The four structures were Divisional, Network, Hierarchical, and Flat. Hierarchical and Flat structures were more prevalent and selected for use in our analysis (shown earlier in figure 1).

Step four (a, b, and c) was completed simultaneously to ensure findings, implications, recommendations and conclusions could be made.

Step four (a): Visual Analysis

All 85 roles were added to a full organizational structure (see appendix), bundled into business units to show managerial levels, then colour coded based on the output from ChatGPT on each role. Red reflected that genAI would fully replace the role, amber would partially replace the role, and green would not be affected by the implementation of genAI. This visual was then duplicated and all roles which would fully be replaced by genAI was removed from the structure (figure 4). Once step four (b) was completed, figure 4 was then expanded to draw out all skills which would be replaced by genAI and depicted as a team structure which outsources some skills to genAI directly. Assessment on managerial levels was completed between the two structures and assessed against step four (b) and (c).

Step four (b): Data Analysis

The O*NET, 2023 data was then analyzed on the basis of skill level required for skills which ChatGPT determined would be completed by genAI in the future. Roles which only had high skill levels (>4) required to complete their role were removed from the analysis as it has been assumed these would be more complex and would require some form of human intervention (this was the case for 70 of the 85 roles selected). The roles with the low-level skills were then tabled alongside the output from ChatGPT for those same roles to determine if the role would likely be replaced by genAI in the future and assess for correlation (as noted in table 1). 11 of the 15 roles aligned with ChatGPT and the skill level analysis, leaving 4 roles which showed discrepancy, discussed in the findings section.

Step four (c): Literature/Article review

As literature is in its infancy on the impacts of genAI on organizational structures, a multi-modal approach was taken, where both academic and grey literature was used. There were three core questions we sought to answer through this step to enhance our finding analysis:

1. What does the literature say about AI impact on organizational structures?
2. What is the media saying about concerns regarding impacts of AI on organizations?
3. Do the reports and literature align with what the visual and data analysis depicts?

Through performing targeted search on these questions, we were able to gain a more holistic understanding of the impacts we were seeing through our data and visual analysis. As step four (c) was completed in parallel with step four (a) and (b) we were able to be more targeted with our search on

themes we saw emerging, for example, the move from hierarchical to flat, which has been a common move over recent times. This conceptual literature review is described by Paré et al, 2016, as one which assists in the understanding of attributes and basic elements of the concept. Our conceptual literature review of the listed questions, coupled with our own analysis, enhanced our hybrid approach of this research to further develop initial findings.

Once step four was complete, implications, recommendations, and conclusions were made and documented.

4 Findings

4.1 GenAI and the change in roles

While reviewing the skills ChatGPT identified as likely to be replaced by genAI, there is a common theme emerging. Many of the mundane and repetitive, collection and analysis type skills were identified as the most likely to be replaced (see appendix). There is also a theme emerging with technical ICT skills which are likely to be replaced, such as monitoring, triage, troubleshooting, and testing. When the skills anticipated to be replaced are compared to those listed in the source data (appended), these can be summarized below:

- Coordination
- Troubleshooting
- Operations analysis
- Monitoring
- Writing
- Programming
- Management of financial resources
- Management of material resources
- Quality control analysis
- Operations monitoring
- Technology design

Assessing these skills against the roles identified, these impact all 85 roles, this is in contrast to ChatGPT's list of 79 roles which will be partially or fully replaced, as all roles will be impacted by genAI's ability to complete tasks with basic skills such as writing and editing tasks which was largely neglected from the information provided by ChatGPT. This discrepancy in our analysis and that of ChatGPT's, could be as a result of the authors not providing enough context for ChatGPT to provide more thorough analysis, or as a result of bias or hallucination. Through this response, the authors acknowledge the importance of reviewing genAI outputs, applying critical thinking over results, along with expert knowledge where possible. Our data shows 70 roles which require high level of skills (rated >4). This

information tells us that there is expected change for the 70 roles as the listed skills associated to them will be partially, if not entirely, replaced by genAI, and for the 15 roles which only required a low level of the skills (0-3.99), these are likely to no longer be performed by a human in the future. When we compare this to what ChatGPT tells us, it becomes clear how significant an impact this will have on organizations and how they are structured. However, we can also identify five roles where there is a discrepancy between the O*NET data and ChatGPT assessment. This shows that there is a possibility that Computer Network Support Specialists, Customer Service Representatives, First-Line Supervisors of Personal Service Workers, Production, Planning and Expediting Clerks, and Receptionist/Information Clerks will not entirely be replaced by genAI, even though the skills assessed say they will.

The 15 roles which only required a low level of the skills assessed are listed below (Table 1) against the output from ChatGPT.

Table 1 Low skill level roles comparison with ChatGPT response

Role	Low skill (<4)	ChatGPT - will the role be replaced/augmented by AI
Bill and Account Collectors	Y	YES
Billing and Posting Clerks	Y	YES
Bookkeeping, Accounting, and Auditing Clerks	Y	YES
Computer Network Support Specialists	Y	PARTIALLY
Customer Service Representatives	Y	PARTIALLY
Data Entry Keyers	Y	YES
Document Management Specialists	Y	YES
File Clerks	Y	YES
First-Line Supervisors of Personal Service Workers	Y	NO
Office Clerks, General	Y	YES
Payroll and Timekeeping Clerks	Y	YES
Production, Planning, and Expediting Clerks	Y	PARTIALLY
Receptionists and Information Clerks	Y	PARTIALLY
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Y	YES
Word Processors and Typists	Y	YES

4.2 Changing roles leading to a different organizational structure

Turning our focus now to the organizational structure impacts, Figure 3 shows what impact such changes could have on an organizational structure in the future, assuming ChatGPT's predictions are accurate. Although every organization does not necessarily have every role we are assessing, for hypothetical clarity, the 85 roles have been included in a single snapshot to clearly articulate the scope of change.

With 26 operational roles expected to be replaced by genAI, and a further 53 partially replace (middle management (13), operational (37), upper management (3)) we must turn our focus to the roles that will change due to the introduction of genAI, and mitigate the impact of those which will be removed. When removing the genAI replaced roles from the structure and adding in the skills which genAI will perform in future, based on our analysis, the scope of what we need to adapt to becomes visible. ChatGPT identified 79 skills which genAI will likely replace in the future; a sample of these are shown in the bottom right-hand box ("skills to be performed by AI") in Figure 4. The changed roles (identified as yellow boxes) will need to adapt to a new structure where each role calls on genAI to perform 79 tasks, historically performed by a human.

Although Figure 4 appears hierarchical, the structure is considered flat due to the reduction in the management levels as some skills are handed over to the genAI to complete. As we can see in the "skills to be performed by AI" box, this is a result of 79 named skills by ChatGPT that will be completed by genAI in future (sample of simplified skills shown in figure 4). These such skills, as identified earlier, remove 26 operational roles, and likely a reduction in management roles as a result of this. Structures will be "flatter" because they will not be as deep, with lower level knowledge-worker roles fully or partly replaced.

5 Discussion

This research identifies implications for organizations due to the level of change required as a result of genAI being implemented into existing processes, roles and overarching organizational structures. These are not trivial changes that can easily be incorporated into existing structures and practices. The wave of high-profile business failures in the recent past, such as Kodak (Mui, 2012), and Xerox (Kulkarni, et al., 2020), were attributed not to a lack of knowledge about emerging digital technologies, but a failure to absorb these effectively into the organization (Mui, 2012). If we integrate the findings presented above with regard to organizational structures and job disruptions, with what we know about the current uptake of tools like ChatGPT, several things become clear.

5.1 "Coming ready or not"

With more genAI tools appearing on the market, the effect on productivity is already being seen. Employees are actively sharing on platforms such as Reddit and TikTok how they are using genAI to streamline their work, allowing more time for themselves. Whether organizations want this or not, it is here now and it is impacting employee outputs. Individuals and organizations that are quick to redesign jobs and organization structures to incorporate genAI in a managed way, are likely to gain competitive

advantage as productivity is enabled. Conversely organizations that do not have a coherent strategy for AI adoption into roles and if organizational reporting lines for genAI are not developed, they may experience uncontrolled use of AI by employees, with the potential for instability and political in-fighting as unplanned changes occur.

The increase of performance resulting from the introduction of new digital technology to an organization is not a new concept. This is most commonly due to the introduction of new business processes and 'ways of working' which new technology implementation, and newly integrated technologies bring with it (Martinez-Caro, et al., 2020). Through innovation and cost reduction of processes, productivity is seemingly improved particularly in industries such as telecommunications and IT services, however without policies in place, this enhancement is mare perception (Pilat & Criscuolo, 2018). It is clear through research that without key capabilities and technology investment, productivity can be negatively impacted due to the lack of understanding and training of the new digital technologies (Pilat & Criscuolo, 2018) opening organizations to increased risk if proper adoption is not completed.

5.2 Unprepared organizations will be exposed to risk

If individuals or groups within the organization incorporate genAI unilaterally into their jobs and structure, without an overriding plan, the organization will be exposed to a wide range of risks associated with genAI use. This may take many forms, for example mistakes made by genAI may not be spotted, genAI outputs may not be properly quality controlled or audited, and ethical, security, privacy, and copyright concerns may not be identified and managed (Pilat & Criscuolo, 2018).

Without sufficient preparations and employee training, the implementation of genAI tools in an organization could be detrimental, exposing them to privacy and security risks, among many others. There are many people who are yet to understand that tools such as ChatGPT are not 'thinking machines', they are 'predictive machines' (Dodgson, 2023). The likes of genAI tools such as ChatGPT, which we utilized for analysis in this paper, are trained of information from a point in time (in our case, June 2024), without understanding this constraint, employees and organizations are likely to experience low quality outputs, and without understanding where the information has been drawn from, possible copywrite infringements. As the focus has shifted from new technology hype to the implementation of responsible AI, including a focus on human-centered technology, security and privacy of data (Vassilakopoulou, et al., 2022), organizational strategies and responsible AI policies must be put in place to protect communities while preparing for the use of genAI more widely throughout their organizations. In order to achieve this, as stated in Liu, et al.'s (2022) special issue editorial, the issue purpose was to "bring together researchers and practitioners working on network security and AI communities to present their recent researches and applications, and also to show how to seize opportunities and overcome challenges brought about by AI in security and privacy of emerging applications" (Liu, et al., 2022), however, there should be an ongoing collaboration between researchers and practitioners to ensure ongoing growth in creating more secure technologies for organizations, and society.

5.3 Changing roles

As noted throughout our analysis, the implementation of genAI into roles will likely be the biggest impact on organizational structures . As this is a relatively new concept with minimal real-life examples to learn from, organizations are needing to strategize for many unknown impacts while navigating disruption to current employees and how they work today. Organizational culture plays a major part in the effectiveness of implementing new technologies (Martinez-Caro, et al., 2020). The introduction of genAIwill likely be no different. Having a strong organizational digital culture will enable successful implementation of such change, and in doing so propel the organization ahead of its competitors. Developing roles which incorporate both human and genAI elements is transformative, and adoption is moving quickly (Nyagadza, et al., 2022). Additionally, the way human's problem-solve, and the way computers do, differ substantially, the strategy behind changing roles to include genAI capability needs to be calculated with this at the center of the strategy. Knowing exactly when and how to re-design roles and incorporating these into an organizational structure, and ensuring a strong digital culture is in place, is an opportunity to get ahead of competitors, but also a risk of major disruption to current business, or even failure.

It is therefore imperative that organizations plan for a controlled integration of genAI tools through strategized adjustments to their organizational structure. This is particularly important when considering existing roles that will be significantly impacted by the change (as shown in figure 4). Organizational structuring will continue to flatten, but not necessarily be more process oriented. While prior ICT developments enabled a better information flow within organizations as a means to provide communication channels and access to information in predefined ways, genAI such as ChatGPT leads to an additional empowerment of individual employees. Every employee can access vast amount of data inside and outside the organization without fundamental training in the domain or deep experience in the organization. Formal languages as well as demands to IT departments to establish certain query options are not necessary. As such, ChatGPT enables a much more connected organization in which individuals and teams of individuals can work together with a decreased formal organizational structure.

6 Implications For Organizations

To enable the successful implementation of significant technology change, organizational leaders need to ensure their own awareness and understanding of the changes required, clearly define, and strategize what will change, and how, and offer appropriate training and learning opportunities to employees to allow for genAI to be effectively adopted into roles. This includes knowing when to implement digital technology such as genAI (Holmstrom, 2022), minimizing impacts on employee wellbeing, while increasing productivity and profit opportunities. This may involve the following areas.

6.1 Proactive change management of organizational design.

The large-scale changes that will occur or are presently occurring in job roles and organizational structures need to be actively managed and not left to evolve in an uncontrolled fashion. Organizations

need to redesign specific job roles and their place in the organization structure proactively, as well as moving to a flatter organization structure with the implementation of genAI.

6.2 Upskilling through organizational redesign.

Senior Managers will likely have received their professional training, education, and much of their professional experience before the advent of end-user genAI tools, and in a “conventional” more hierarchical organization. In order to enable success, they must be aware of the extent of change genAI tools will bring to their departments, and practice personal continuous learning to ensure they are able to support their human teams, and, where applicable, manage their genAI team members. Additionally, Senior Managers need the opportunity to build their own skills in order to redesign roles and organizational structures in their areas of expertise. It should also be the responsibility of organizational leaders to provide learning opportunities and training to all employees in their redesigned roles. This includes how to work in a collaborative environment with genAI, how to use the tool effectively, and developing clear responsibilities between what the human should retain and what the genAI can do (e.g., how to work together, as humans and AI, towards a common goal).

6.3 Identify new/changed roles (including new functions to partner with and supervise genAI) and incorporate them in the organization structure.

It seemed inevitable, based on our analysis, that some new roles and functions may be required, as well as enhancements to existing roles. Our interactions with ChatGPT suggested that user experience, data analysis, solutions architecture, solution deployment, privacy and ethics, training, and performance evaluation roles would need to be enhanced to incorporate knowledge and skills in working with artificial intelligence (Jarrahi, 2018).

7 Conclusion

Based on our results, we seriously need to consider what this means for our organizations at an individual level, and what we can do as leaders within organizations to ensure we embrace change and enable ongoing organizational success. From what we have seen through this research, there are 79 (out of 85) assessed corporate roles which will fully or partially be replaced by genAI, but the impact of this will stretch across the whole organization regardless of the final numbers. We need to prepare now for the significant changes genAI is likely to bring. Regarding when we will see the full effect of these changes within organizations, this is still up for debate, and depending on who you speak with, this can be anywhere from within the year, to the next decade. From ChatGPT’s perspective, this is also an unpredictable timeline - one has to keep in mind that the answers are based on the multitude of documents created by humans that are used in ChatGPT.

Our paper has several theoretical implications: First, we provide a holistic view of the organizational changes that are likely to result from the uptake of genAI. Second, our results show how genAI can form collaborations with humans in different types of roles in organizations. The insights show that changes

will be in line with ideas for organizational structuring from lean management. And third, we describe a new method including ChatGPT as a representative genAI on how to conduct analyses in organizational settings.

This discussion with ChatGPT is only the start of what we need to know about how genAI will change organizations, and ultimately careers. There is opportunity for future research in many areas of this topic such as; what new roles will emerge as a result of genAI being embedded in organizations, the impacts to other industries such as medical and education, and how organizations can use this information to make strategic decisions around when and how to make significant changes to their organizations, such as introducing genAI in place of some human filled roles.

There is still controversy around when, and how, fast genAI will change our organizations. However, as the predicted changes are already occurring and form part of the collective online body of knowledge about AI, and organizational change, organizations should not ignore these insights. To maintain their competitive position, recruit and retain employees who are proficient with new tools, and to upskill existing employees with extensive organizational knowledge, organizations need to understand what new roles and opportunities are arising, and pro-actively manage their job and organizational redesign. This can positively affect productivity (Wijayati et al. 2022) when implemented in an organization effectively. When asked about when we might start seeing these changes to roles, ChatGPT says we need to “stay informed about AI advancements and proactively prepare for the changing landscape through continuous learning and adaptability” (ChatGPT, 2023).

8 Reflection Of ChatGPT’s Role In This Paper

This research was created in collaboration with Copilot, where results and analysis generated by ChatGPT was included with the analytical comparison, completed by the authors, against other data. We acknowledge that ChatGPT draws on a wide variety of text sources including news articles, Wikipedia and scientific journals, taken at a point in time. Therefore, we are aware there may be some differentiation in results over time and potential inaccuracies as a result of this method. Due to its ability to utilize LLM, ChatGPT provides a unique view on the question at hand, utilizing a wider range of literature in order to provide an answer in collaboration with human team members. We have used this data as a basis to commence the conversation on how such technologies can impact organizational structures, using the best efforts of existing AI technology, ChatGPT, to provide this understanding. As described by Yaroshenko & Iaroshenko (2023) some of the additional benefits experienced from utilizing ChatGPT as a valued team member for data analysis is the “versatility and time-saving features, ultimately leading to more impactful research outcomes” (pg. 197).

Working with ChatGPT throughout the analysis of this paper was a unique experience, much like working with a human, we had to assess what ChatGPT’s strengths were and ensure effective communication was utilized for the best output. Some challenges we experienced included, the quantity of data ChatGPT could analyze at one time, meaning we had to run the same query for chunks of data inputs to ensure

valuable results were given without ChatGPT leaving role analysis out (which was initially experienced prior to commencing the ChatGPT analysis portion). As discussed in our findings section, we also discovered discrepancies between ChatGPT's analysis and our human analysis, in order to mitigate this, it was important that a human was appointed to oversee the results and critique the outputs.

However, this unique experience also brought with it valuable outcomes. We believe by utilizing ChatGPT within the analysis portion of this research we have been enabled to provide a unique outlook on what changes we can experience within organizational structures, individual roles, and how genAI technologies may be able to be utilized in future research.

ChatGPT was not part of the authorship of this paper.

Declarations

Author Contribution

All authors contributed to the study conception and design. Material preparation, data collection and initial analysis was performed by CL. Analysis and findings were reviewed by AR, MT, ML. The first draft of the manuscript was written by CL and all authors revised and commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Data Availability

Data is provided within the manuscript, as a link to Open Science Framework within the appendix section. An anonymous link has been created for blind review and will be public on acceptance.https://osf.io/rdm8p/?view_only=4ea1a3f39ff64c4ba421a0aa6c82d4d9

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Figures

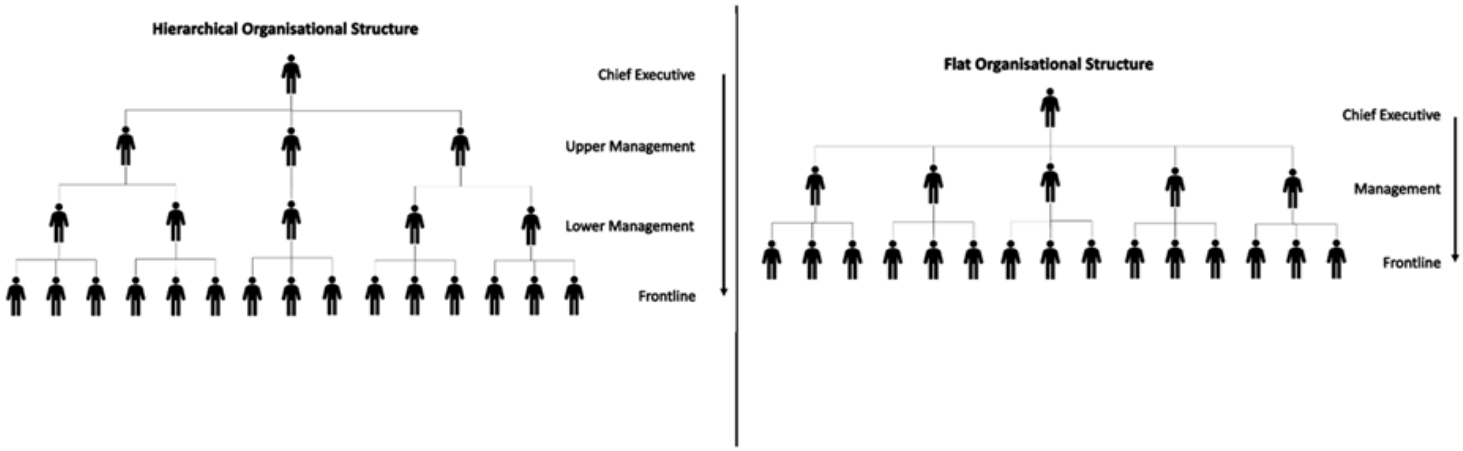

Figure 1

Common functional organizational structures overview

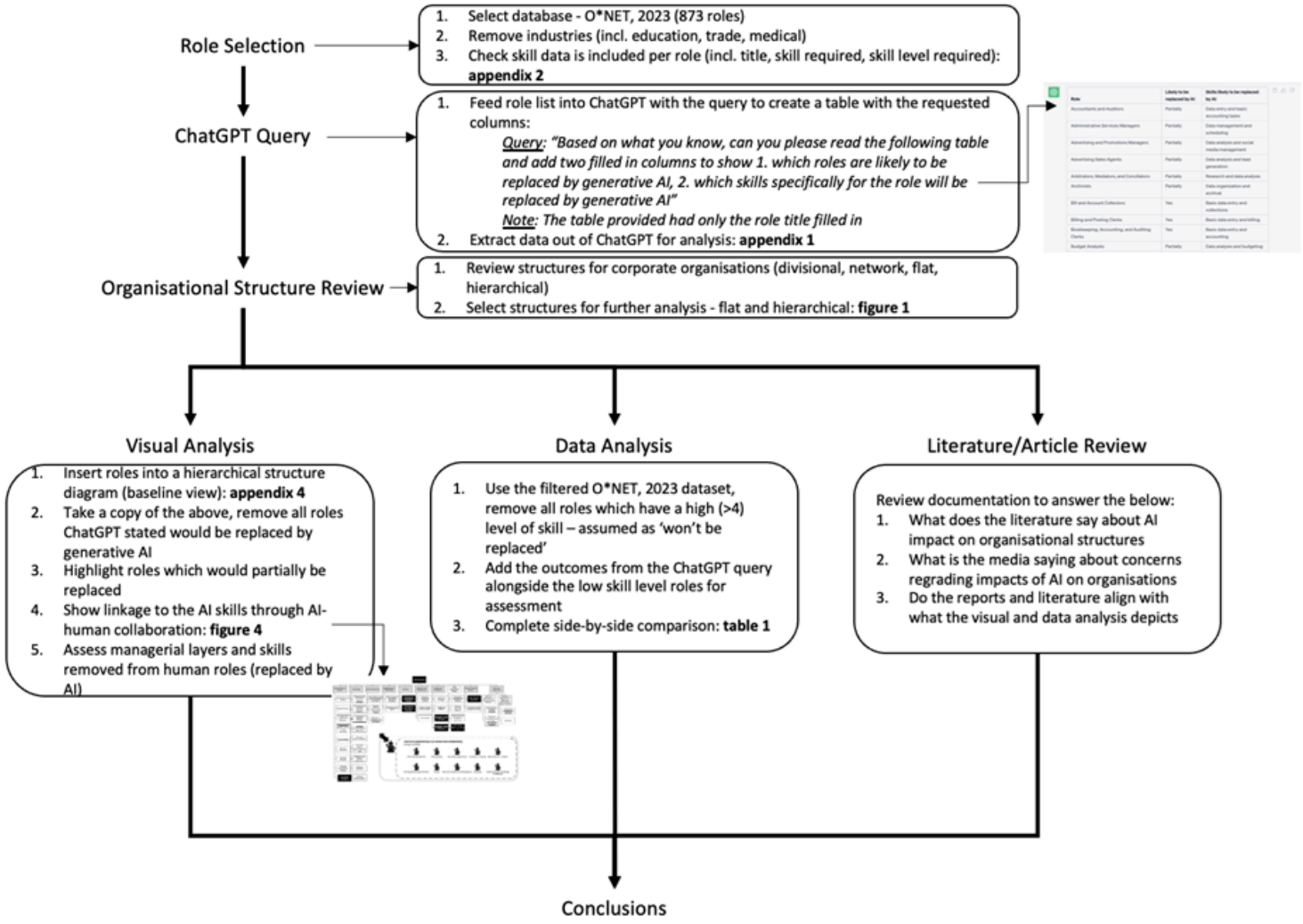

Figure 2

Research and Analysis Method

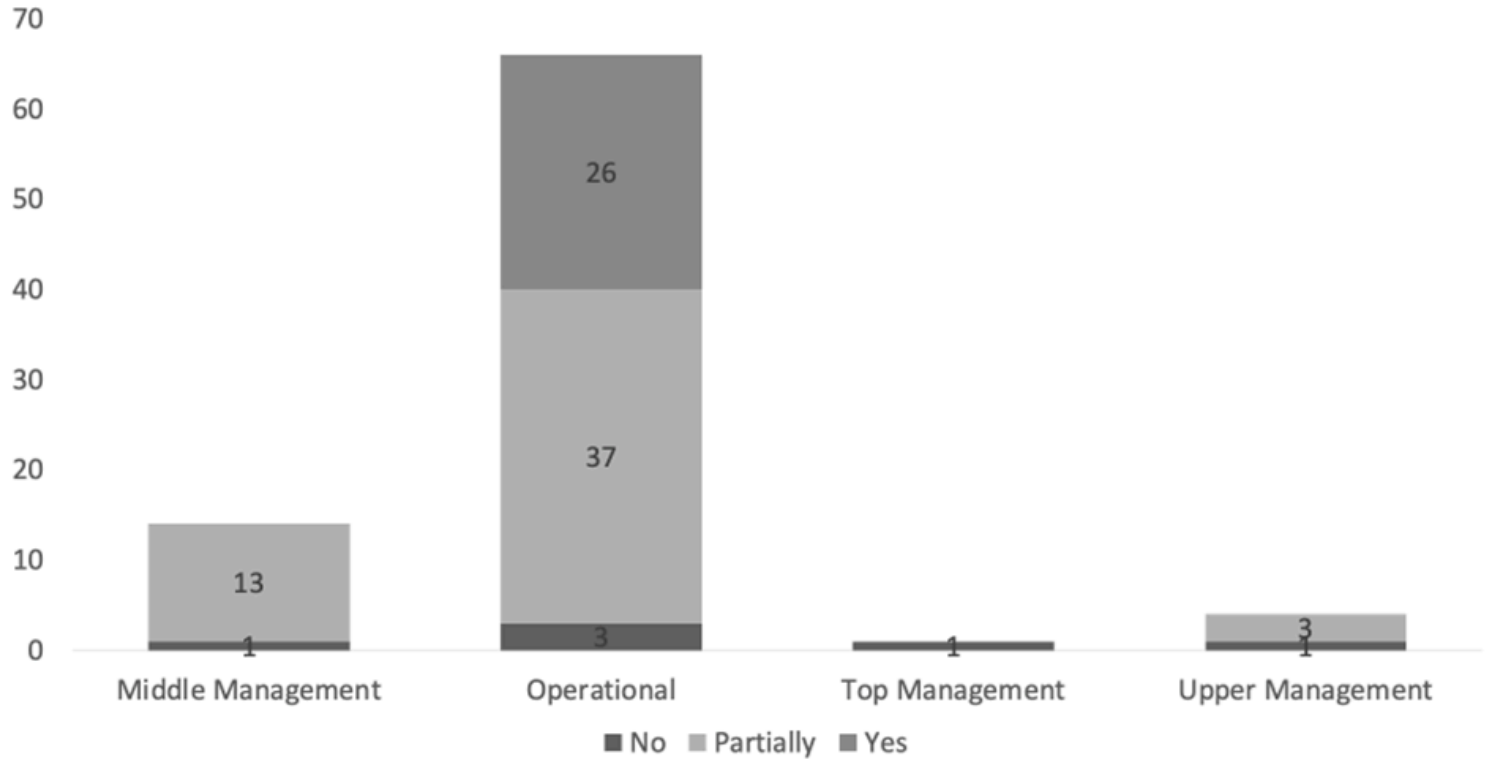

Figure 3

Full Organizational Structure impact, as stated by ChatGPT

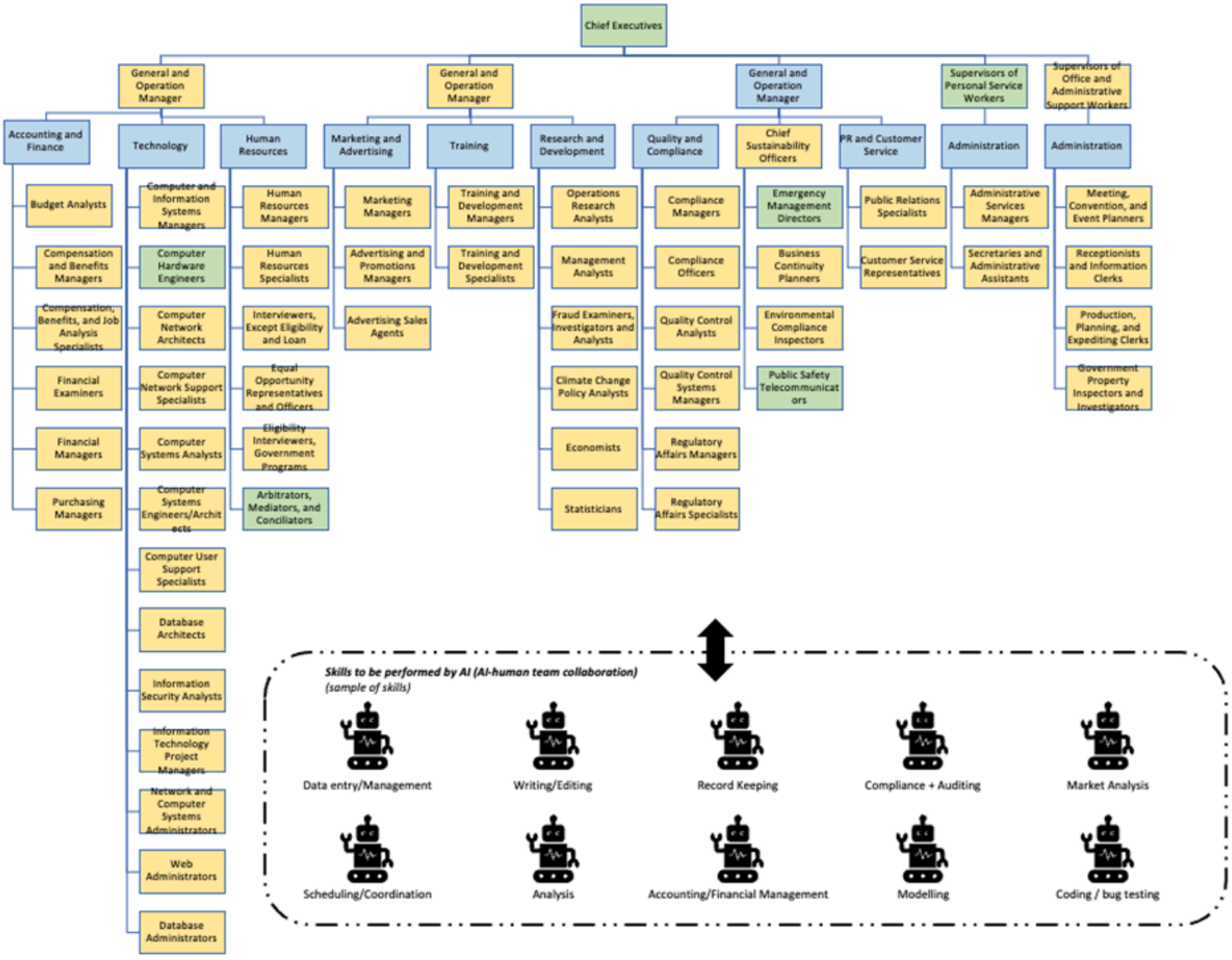

Figure 4

Organizational Structure, future state (based on ChatGPT predictions)

Supplementary Files

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- Appendix.docx