



Integrated, Centralized & Decentralized Models of Digital Structure for Medical Affairs



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Introduction

This paper is the second in a three-part series examining digital transformation in biopharmaceutical and MedTech organizations. The first article sought to define 'digital' as a mindset and way of thinking that goes beyond specific platforms, tools or solutions to enable strategy and strategic thinking.¹ The purpose of this article is to examine three models that modern industry organizations have taken to structure digital within their Medical Affairs departments. For the purpose of this article, we are defining structure as organizational hierarchy, identifying how roles and responsibilities can be organized so a company can meet its objectives.

Digital Structure

Many factors are combined with structure and strategy to create an organization's digital presence and purpose including people, processes, ways of working, culture, management responsibilities, human and technology resources, operations and evaluations. Ideally, digital is interwoven into the activities of Medical Affairs and the organization so that it becomes difficult to tell whether the structure of the organization is driving the implementation of solutions/technology or whether the organization's digital approach is driving the organization's structure. On the other hand, digital initiatives implemented on their own, without considering how they may or may not resonate with the structure of the organization, run the risk of being piecemeal implementations, never fully understood or implemented within the organization, and often eventually abandoned. We think of this use of technologies like the arcade game "Whack a Mole," in which technologies are adopted reactively to solve emergent problems, but never implemented proactively to drive an organization forward. As such, technology and the organization must resonate and reinforce each other; but on the other hand, there is considerable flexibility in pairing organizational structure with digital strategy and technological enablers, such that (nearly) any structure can be symbiotic with any (nearly) any technologies, with careful consideration of the strategic priorities.

Organizational structure depends on vision, objectives and strategy, and aligns parts of an organization so it can achieve its maximum performance.² Structure defines how tasks are divided, grouped, led and coordinated in organizations; it helps teams work together efficiently, sequencing and prioritizing the work that needs to be done in order to meet the goals of the organization. In other words, digital tools add the "how" to structure, while structure provide the "why" for digital tools. In this way, structure can be the bridge between digital solutions and strategic accomplishments.

This article provides top-level framework and broad conceptual categories for understanding digital structures within Medical Affairs and biopharmaceutical/MedTech organizations, helping leaders to make organizational decisions to drive their digital strategy with intention and purpose. That said, each organization will undoubtedly personalize its structure such that any implementation will be unique, likely drawing on visions/strategies and methods from multiple models.

Functional Areas & Roles

Part three of this paper series will dive deeper into the digital roles and competencies required for a modern digital Medical Affairs organization, however, for the discussion in this article, when we refer to 'digital teams' within an organizational structure for Medical Affairs, we are broadly referring to the following four general digital functional areas identified in the previous MAPS paper Elements of a Successful Medical Affairs Digital Strategy Framework: Omnichannel scientific engagement, advanced data generation, foundational systems/capabilities, and people/culture.³ For example, Omnichannel engagement roles may include channel-specific roles such as web strategy and content strategists; advanced data generation may include natural language processing leads and data scientists; foundational systems/capabilities may include CRM managers and data analysts focused on metrics reporting; and people/culture digital roles may include digital capabilities leads whose remit is to upskill digital competencies across the MA organization.

Integrated, Centralized & Decentralized Models

Three general models of digital structure within organizations exist, namely Integrated, Centralized and Decentralized models. Each can be equally appropriate depending on the broader organizational ecosystem. There are, of course, also other models that fall in between or represent combinations of these three. Broadly, in 'decentralized' teams, people have ideas, try them out, and ideas that prove useful or successful may be adopted by other teams. In the centralized model, Medical Affairs created dedicated digital teams or digital roles within teams such that digital capabilities may be centralized by function. However, digital and particularly the data underpinning the activities of digital, are unlikely to be siloed by function, prompting many companies to reconsider centralization by function in favor of digital 'centralization by capability' (i.e., digital roles housed within centers of excellence). In the Integrated model, companies seek to establish digital capabilities serving the core business, such that innovation is primarily conceptualized at the organizational level, while digital centers of excellence may continue to provide services by function or capability. Hybrid models certainly exist, for example a model that is decentralized for efficiency and fast outputs (MVPs) but with a centralized mindset that allows teams to tap into established systems.

In the attempt to describe how the majority of pharma companies structure their digital organizations, the authors informally surveyed colleagues and members of the MAPS community to get a sense of how their companies are structuring digital for Medical Affairs. What became apparent is that although each company has a unique approach to digital, the structures of their digital teams largely fell into integrated, centralized, or decentralized models. The following is our attempt to describe some of the advantages and challenges with each of the models, and to enable the reader to identify where their company fits within this framework.

INTEGRATED COMPANY (CENTERS OF EXCELLENCE) MODEL

Digital roles are concentrated in one business unit that provides technology, services, and solutions across the three pillars of the company (Commercial, Medical Affairs, and Research & Development), and equally serves global, regional and affiliate levels across these three pillars.

PROS

- Cost savings as technologies, services, solutions and platforms are scaled across functions, minimizing baseline costs by avoiding duplication.
- Concentration of various digital expertise makes point-of-contact more efficient.
- Company-wide vision and purview; a “one-stop shop” approach allows for clear accountability and consistency.
- Supports synchronization of technology, services and solutions as well as data centralization, right to access, data privacy and cyber security management, plus capability outsourcing/migration within and across all levels and pillars.

CONS

- Potentially only high impact projects prioritized with risk of leaving smaller units without specific support.
- Unless layered appropriately, the long-term benefits of Medical Affairs may struggle for priority support when directly balanced against the shorter-term benefits of Commercial.
- Many off-the-shelf digital solutions, services, technology and platforms were designed for Commercial or R&D first, possibly making them imperfect for use in Medical Affairs.
- Can be seen as a prescriptive, top-down approach, especially if the input and equality of the three pillars are not adequately ensured.
- Enterprise-wide, larger scale technology/digital rollouts that affect all three pillars simply take longer.
- Digital may lack the talent to effectively deliver across all three pillars that have different needs, functions and levels.

CENTRALIZED MEDICAL AFFAIRS MODEL

Digital roles are concentrated in one department within Medical Affairs, providing standardization and integration of digital frameworks across all levels. The department is equal to and partners with similar Digital departments in Commercial and Research & Development. The Centralized Digital department is typically concentrated with innovators who focus on identifying new technologies, services and solutions and then rely on implementers across Medical Affairs to scale and ensure quality/compliance.

PROS

- Clarity around roles and responsibilities with a focus on Medical Affairs priorities
- Cost savings in comparison with the Decentralized model, as platforms, technologies, services and solutions are offered across Medical Affairs at scale.
- Supports common language and digital culture across the Medical Affairs organization.
- Highly supports synchronization of technology, services and solutions as well as data centralization, access right, data privacy and cyber security management as well as capability outsourcing/migration across and within the levels of Medical Affairs.
- A single hub collects innovators focused on finding solutions that work for the majority of the Medical Affairs organization. (Centralized data aids gap analysis and downstream communications strategy.)
- Digital department may also include sub-units of innovators and implementers focused on the specific solutions, services, platforms and technologies needed for more individualized situations.

CONS

- Can be seen as a prescriptive, "top-down" approach if listening does not occur equally across the organization.
- Slower and less agile than a decentralized model in adopting new technologies, services, platforms or solutions
- Large-scale rollouts across Medical Affairs take longer than more focused implementations.
- Today, Medical Affairs Digital departments may lack the right talent to staff digital talent across the organization.
- If budgets trail those of Commercial, Medical Affairs Digital departments may be forced to follow larger, Commercial-led implementations, or struggle to scale innovations across all levels of Medical Affairs.

DECENTRALIZED MEDICAL AFFAIRS MODEL

Digital roles exist across Medical Affairs functions, supporting teams with significant autonomy and self-governance. Innovation, digital operations, quality and compliance are developed and implemented largely independently, with a lean global team helping to facilitate the governance and global support of initiatives. The vision of a decentralized model is optimized localization of roles, solutions, and ways of working as well as technology and services. Even in a decentralized model, organization-wide technologies (e.g., the CRM) commonly remain managed by digital roles within the global level of Medical Affairs.

PROS

- Geographically distinct teams or those focused on specific initiatives or products feel supported with hyper-localized solutions.
- Individual digital teams are empowered to trial and implement innovative solutions at small scale.
- Faster implementation processes due to smaller scale and quick Minimum Viable Products (MVPs) instead of highly sophisticated and fully developed products that are often quite expensive.
- Local/national needs are addressed with local solutions, technology, services and platforms and with a deep understanding of the external national/local environment, potentially expediting uptake within national/local healthcare systems/technology.

CONS

- Risk of duplicating efforts, resources, technology, platforms and solutions across independent entities within the organization, along with associated duplicated baseline costs
- Perception of local teams being siloed and/or unsupported by the company or global level of Medical Affairs.
- Synchronization and integration issues due to variety of technologies, solutions, platforms and services, possibly resulting in re-work, disconnect, loss of data, etc.
- Issues in data centralization, access management and data security
- Challenge for capability outsourcing/migration across levels and affiliates.
- Possible issues with the quality of MVPs arising from less resourced efforts.

Conclusion

Neither the centralized, decentralized nor integrated model will perfectly define the digital structure for any single Medical Affairs organization or biopharmaceutical/MedTech company. However, keeping the general benefits and drawbacks of these models in mind can help Medical Affairs leaders proactively design digital structures to maximize pros while putting processes and expectations in place to minimize many of the cons. The authors hope these broad models provide language and a starting point for the structure of 'digital' across organizations.

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