

WHITE PAPER

Future-Proof Your Marketing Technology

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Summary

Today's marketers face a highly dynamic situation. Business needs evolve as customers interact in new ways through new channels, and technical possibilities can change overnight as new systems are introduced.

Consider this:



In 1986, the cutting edge of marketing technology was direct mail. Ten years later, a marketing architecture built around direct mail was hopelessly obsolete.



In 1996, the cutting edge of marketing technology was email. Ten years later, a marketing architecture built around email was hopelessly obsolete.



In 2006, the cutting edge of marketing technology was desktop Web sites. Ten years later, a marketing architecture built around desktop Web sites was hopelessly obsolete.



In 2016, cutting edge marketing technologies include mobile, social, programmatic ad buying and machine intelligence. Are you willing to bet that ten years from now a marketing architecture built around any of these will still be adequate?

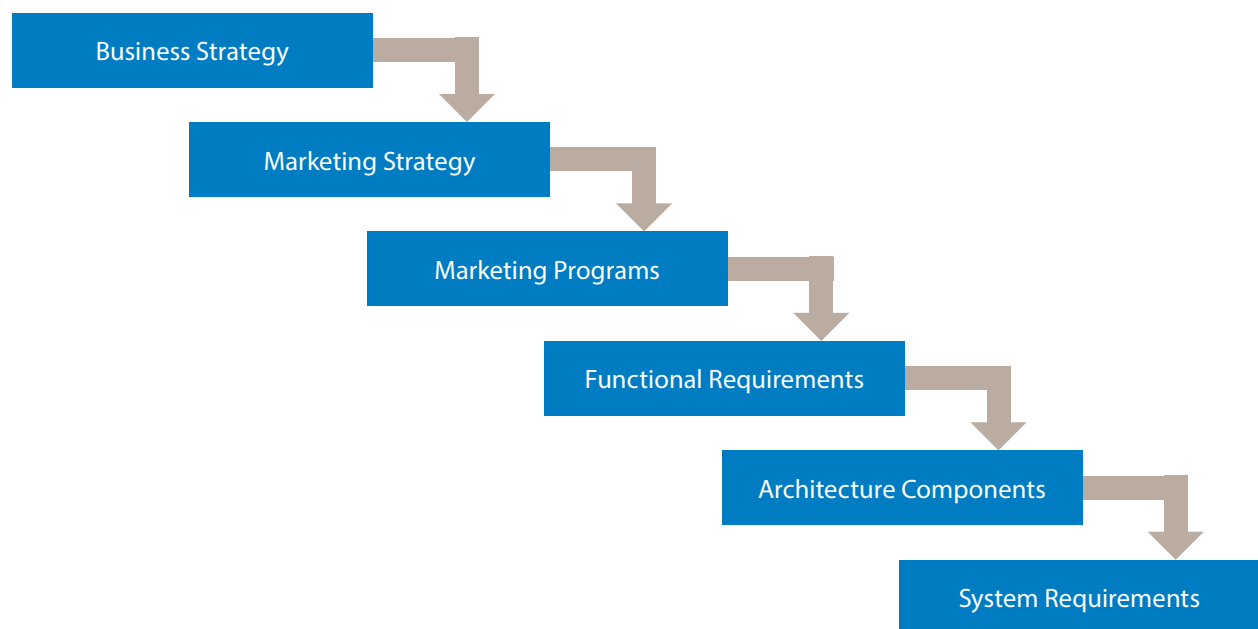


The truth is that no one can reliably predict the future of marketing technology. But we can all be certain that change will continue. This paper describes how to plan a marketing architecture that will meet your needs, whatever they turn out to be.

Current Approach to Technology Planning

Today's standard approach to marketing technology planning has its roots in methods developed for a simpler world.

This approach, often described as a “waterfall” process, starts with defining strategic business goals. Next, marketers describe the marketing programs they need to meet those goals. They then define the functions needed to run those programs, design an architecture that supports those functions, and finally specify requirements for the systems within this architecture.



The waterfall approach works well when business requirements and technical capabilities are known in advance. But today's future is not a moving target; it's barely discernible blur. Planning is no longer a matter of playing “to where the puck will be,” as hockey great Wayne Gretzky famously said. It's a matter of being able to reach the puck whatever direction it takes.

Designing a Future-Proof System

The key to planning for an uncertain future is flexibility. Marketers should assume that unanticipated systems and requirements will appear and design an architecture that makes these easy to accommodate.

Benefits of Flexibility

What do marketers gain when they put flexibility first? Important benefits include:

- **Longer system life.**
Flexible systems can be retained longer because they can adopt to new requirements.
- **Greater marketing agility.**
Flexible systems let marketers quickly adopt new channels and techniques because they don't need to replace or rebuild new systems first.
- **Lower costs.**
Marketers can incorporate new techniques without costly changes to existing systems.
- **Greater integration.**
Flexible systems can easily share data with other systems, letting all systems provide a consistent customer experience.

Of course, flexibility has always been desirable. So the goal for future-proof planning must be stated more strongly: it makes flexibility the first priority. Concretely, this means being willing to sacrifice other objectives, such as achieving the greatest possible efficiency or even optimizing current results. Only marketers who acknowledge and accept these costs are really serious about putting flexibility first.

Raab Associates believes that the most flexible architecture available with today's technology is a modular framework that lets users replace individual components without disrupting functioning of the entire system. This lets users add new components as they become available, either because they perform an old task better or because they perform a new task that was previously unavailable. Of course, some tasks are so entirely new that they won't fit into the existing framework, so a flexible system must be extensible as well. But adding extensions must still be possible without restructuring the core of the system.

Another way to describe this: what is stable in this architecture is the functions, rather than the technology. Core functions a marketing architecture must support include:

Assembling unified customer data.

This requires acquiring data from all possible sources, linking records that belong to the same customer, and making that data available for further use. Features associated with flexibility include easily accepting data in any format, including new ones; storing massive volumes of data; and allowing any type of query or extraction to access the data.

Adding new tools.

A highly flexible system will break its internal operations into modules so users can easily add new tools to perform specific functions in better or new ways as these tools become available. These tools might reside within the company or externally; the flexible system won't care.

Selecting customer treatments.

This requires analyzing customer data to determine which treatments are best, including both manual and automated methods. It also requires creating rules and marketing programs to execute the decisions.

Marketing management.

This includes marketing planning and budgeting, content creation and access, and marketing results analysis. The very broad range of tasks makes modularity especially important in achieving flexibility, since each task is likely to be best done by a different system, many tasks will themselves be divided among multiple systems, and the systems of choice will change frequently.

Triggering real-time action.

Many tasks must be executed in real time, taking into account the customer's current situation (location, channel, previous interactions, expected actions, etc.). This means the various modules must be connected in ways that enable extremely fast transfer of information and results.

Connecting with customer-facing systems.

This is the most obvious requirement for flexibility and modularity. New customer-facing systems have appeared continuously in recent years and many of these – such as social networks – are owned by companies outside the marketer's own organization. Although all these systems are designed for some level of data exchange with marketing, they often provide just a tiny slice of the information a marketer might use to fully understand and take advantage of each interaction. While the owners ultimately control the amount of data they expose, marketing systems need to be able take advantage of everything that becomes available. This once again puts the focus on flexibility in processing different types of data within a modular framework.

Building a Flexible Organization

A flexible organization is critical in being able to adapt quickly and thrive with whatever marketing technology the future delivers.

Building a modular architecture isn't enough to achieve true flexibility. In fact, given the premise that future technology cannot be reliably predicted, it's almost certain that any architecture will eventually prove inadequate. Just as important as architecture is creating an organization that is itself designed to be flexible.

Key attributes of a flexible organization include:

An integration-first technology vision.

This means that every technical component is evaluated based on its ability to integrate with other components, since easy integration is at the core of flexibility. Insistence on simple, open standards is one part of this approach. Another is a fundamental logical data model with a handful of core objects: the customer, messages, and transactions. The specific attributes associated with these objects will vary across systems and over time, but any system used by the company must be fundamentally compatible with this model to support meaningful integration.

Decision methods to pick the best treatment.

All systems and processes must share a common measurement framework to judge business outcomes. This should be a long-term goal such as maximizing customer value or return on investment. A consistent measurement framework provides a way to unify the many supporting technologies that are used to make decisions, including predictions, recommendations, and optimization. This consistency is what allows marketers to swap individual components without breaking the system as a whole.

Staff skills.

The flexible organization needs flexible staff. This means marketers must be more analytical and technical, to enable them to understand and act on new opportunities as they arise. The organization should place less emphasis on hiring experts in specific channels and systems, who can present obstacles to change as new technologies make their specialties obsolete. To some degree, increased machine intelligence may allow effective execution even without employing channel and system specialists. Companies can also rely on agencies and other external resources to provide specialized skills without relying on employees.

Organizational processes.

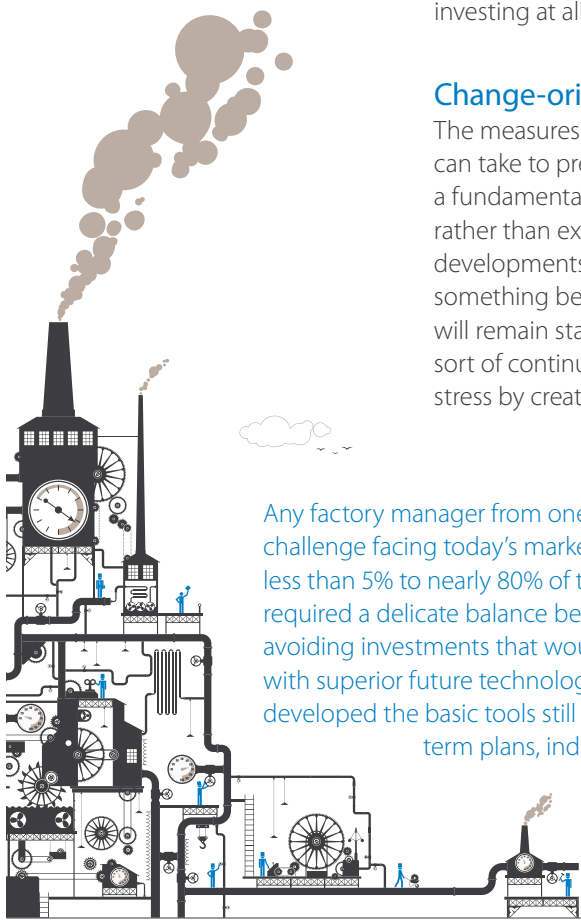
Companies need to encourage cooperation across departments and within departments to deliver the best customer experience possible. This is because future technologies are likely to work across existing organizational lines, as the systems themselves will be highly integrated and customer- rather than channel- or department-centric. The decision methods and staff skills already described will support this transition, but other tools such as training and incentive systems must also be aligned with these goals.

Technology evaluation tools.

Marketers need new tools to assess technology investments. There will always be a need to fulfill specific current requirements and to support integration with the existing environment. But decisions must also consider the impact of a proposed investment on future flexibility and the likelihood that a new technology may make the current requirement obsolete. Judgments about these factors are necessarily difficult and will frequently be incorrect. But they should be considered in all decisions and the company should develop a coherent, explicit strategy to balance the risks of making unproductive new investments against the risks of falling behind by not investing at all.

Change-oriented mindset.

The measures described above represent specific actions that companies can take to prepare for the future. But these must all be supported by a fundamental mindset that sees change as continuous and beneficial, rather than exceptional and dangerous. Managers need to treat all new developments as temporary solutions that will remain in place only until something better comes along, rather than looking for a “best” approach that will remain stable once adopted. Not everyone will be comfortable with this sort of continuous reinvention, but recognizing it as normal will itself reduce stress by creating realistic expectations for how the business will progress.



Any factory manager from one hundred years ago would immediately recognize the challenge facing today's marketers. From 1899 to 1929, electric motors grew from providing less than 5% to nearly 80% of the power in American factories. Managing this transition required a delicate balance between adopting new improvements to remain competitive and avoiding investments that would quickly become obsolete or, even worse, be incompatible with superior future technology. Not surprisingly, it was during this period that companies developed the basic tools still used today to systematically manage capital investment: long-term plans, industrial engineering, and return on investment calculations.

Today's marketers need their own set of tools to manage the continued evolution of marketing technology.

Key Differences: Future-Proof vs. Traditional

Future-proof planning is fundamentally different from traditional ways of thinking about marketing technology.

Some of the key differences are:

Starts with an architectural goal, not marketing programs.

Traditional technology planning starts by identifying the marketing programs a company wants to run now and in the future, defines functional and technical requirements for those programs, and designs an architecture to meet those requirements. Future-proof planning starts with an architecture based on the goal of flexibility, without describing specific marketing programs that architecture will support. Both approaches require rigorous analysis but the subjects of the analyses are quite different.

Ends with component criteria, not an architecture diagram.

The end-product of traditional technology planning is an architecture that contains multiple components, each with specific functional requirements that describe how it contributes to the whole. Future-proof planning ends with general criteria - shared by all components - for flexibility, integration, standards, and compatibility. The future-proof architecture does provide a general model of the functions of its components, but it assumes that the precise details will continuously change.

Assumes components are swapped frequently, not selected and stabilized.

Traditional technology planning envisions a specific "future state" for company systems and then works towards achieving it. The future state is assumed to be stable for some significant period of time – at the least, long enough to finish acquiring all the pieces. Future-proof planning does not assume a stable future state; rather, it expects components to be continuously changed as marketing needs evolve and new technologies become available. It treats the marketing infrastructure as a living body that is constantly replacing individual cells and adapting to its environment, not as a machine that functions without change until something breaks and it then receives a complete overhaul.

Selects minor components based on function, not on compatibility with major components.

The future-proof architecture relies on standard interfaces to ensure marketers have a wide range of choices for systems to perform each function. This lets marketers select the best system for each purpose, including minor components that supplement major components. Traditional technology planning starts by selecting major components based on their fit with requirements. These components often do not support standard interfaces. When this happens, marketers must limit their choice of minor components to systems that are compatible with the major components. These are often not the best products available in the market.

Assumes that staff skills and business processes are dynamic, not stable.

Traditional technology planning is designed to match existing organizational processes and staff skills. Any required changes are defined explicitly and considered a risk factor. Future-proof planning assumes that staff and processes will naturally and inevitably evolve in response to new technologies and marketing needs. It includes in processes and resources to help manage continuous change.

Assume that technology acquisition is an on-going process, not an infrequent project.

Traditional technology planning treats technology acquisition as a discrete project with a start and end. It focuses on managing individual projects effectively. Future-proof planning assumes the company is always buying new technology, so it sees individual acquisitions as part of an on-going process and places each decision in a larger context. It works to develop a repeatable, efficient acquisition methodology rather than stressing management of specific projects.

Final Thoughts

The variety, complexity, and importance of marketing technology have grown tremendously in recent years. This growth may continue to accelerate or, at some point, it may start to taper off. Either way, there is little chance that marketing technology will stabilize to the point where marketers can assume a static future. They therefore need to adopt new approaches that embrace change instead of ignoring it, allowing their organizations to take full advantage of the value that new technology can create.



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