What Is a Digital Product?

The first step to defining the role of a product manager is to understand what is meant by a digital product. With technology’s influence, there are many digital products that a news organization might be developing and maintaining at any time. In the 2016 research paper, “Managing Digital Products in a Newsroom Context,”[1] one interview respondent succinctly articulated this newfound complexity.

“We used to know what a media product was. It was a newspaper or a television broadcast. Now it’s much broader.”[2]

Stories themselves can be digital products when they have interactive or data components. For example, organizations like ProPublica and Texas Tribune have made it their mission to present and visualize data in the service of their stories. ProPublica’s Dollars for Docs[3] project provides an interface to explore financial contributions physicians receive from pharmaceutical companies. Texas Tribune has developed projects that allow users to explore state employee salaries,[4] public schools[5] and Texas prison inmates. ProPublica and Texas Tribune collaborated on the award-winning Hell and High Water[6] project, which used mapping and data to visualize the problem of hurricane preparedness, months before Hurricane Harvey devastated Houston.

But interactive journalism projects aren’t the only digital products a news organization might develop. Some examples of digital products include:

• Mobile applications, like The New York Times Cooking app[7]
• Bots, like the Quartz app\(^8\) that facilitates a conversation with the news

• Special project and event sites, like the Hook 'Em website\(^9\) developed by Austin American Statesman to highlight sports news about The University of Texas

• Social media engagement products that solicit user input, like ProPublica’s project to monitor online political ads\(^10\)

And there are internal projects like content management systems, subscription services, and analytics products that help an organization more efficiently manage their operations. These are just a few examples of the range of digital activities managed by news organizations, with new applications being introduced all the time.

Digital products require a different set of skills than those of a traditional reporter or editor. The complexity and breadth of digital products have elevated the need for managers with unique skills and perspectives. That role falls to someone with a product manager capacity, whether the job title specifically states that or not.

Since 2016, articles have been written and summits convened on defining this new role of product management role as it relates to journalism \(^11\)\(^12\)\(^13\)\(^14\) The role of “journalist” used to be synonymous with “reporter” and “editor.” But now, a new realm of functions and responsibilities has emerged in the service of digital platforms, products, data, and engagement. These are roles as programmers and designers, social media experts, community managers and data analysts, and those who manage and coordinate these resources. In addition to managing the technical aspects of a product, a product manager must also be concerned with their product’s exact role in the strategy of an organization and its life cycle across social media and other platforms, using data to inform decision-making.

Even those in more traditional roles in media organizations need to have a stronger understanding of the product management life cycle. In “The Rise of the Journalist Product Manager”\(^15\) Fontoura said:

“A reporter that publishes a feature nowadays needs to understand how that story gets measured, how it’s affected when it goes through a push notification, or when new customization options appear on the CMS. In other words, how does technology and its use affect that story?”\(^16\)

Thus, the importance of a product management mindset for the entire organization is increasingly important. The role of product manager broadly influences an organization’s commitment to innovation and digital culture, making it a valuable and critical function and an emerging career path.

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History and Background of Product Management

The concept of product management started in the 1930s in the field of consumer goods marketing, where companies like Procter & Gamble made brands the center of the organization and developed customer-centric strategies.\(^17\) But product development was not often included in this process, as consumer products were the result of the manufacturing function. The focus of product management through most of the twentieth century was on sales, promotion and distribution, using marketing to create demand for the products – toilet paper, laundry detergent, beauty aids – these companies manufactured.

But product development eventually became central to the technology industry, causing the development role to more closely align with customer needs. Product management connects an organization’s products to its mission and values.
It has been a function of marketing and engineering departments, but recently has become more central in organizations, with product officers reporting to the top executive in many companies. New roles have emerged with titles like chief product officer, director of product development, and product editor. Other roles, like community manager and social media editor, have product management concepts at their core. Where the product function specifically lies in an organization depends on the type of organization and its product goals.

**Product Management in Tech**

Product management is an emerging role, defined by continuous innovation, particularly as it is used in journalism. However, this is a fairly mature role in the technology industry. There are courses, websites, books, and articles that describe the product management process.

**Courses**

- [Product Management](#) – General Assembly
- [Become a Product Manager: Learn the Skills & Get the Job](#) – Udemy
- [Digital Product Management: Modern Fundamentals](#) – Coursera
- [Product Management for Journalists](#) – University of Texas Knight Center for Journalism in the Americas

**Websites**

- [Mind the Product](#)
- [RomanPichler.com](#)
- [The Black Box of Product Management](#)

**Books**

- [Product Leadership: How Top Product Managers Launch Awesome Products and Build Successful Teams](#)
- [Product Management for Dummies](#)
- [Product Management in Practice: A Real-World Guide to the Key Connective Role of the 21st Century](#)

**Articles**

- [What it Takes to Become a Great Product Manager](#)
- [8 Tips for Landing Your First Product Manager Role](#)

At its most basic, product management is the intersection of the user, technology, and business needs of an organization (Figure 1). This role is typically an expert in at least one area, but should be conversant across all three
sectors to be effective.

Figure 1. Image licensed CC-BY

This intersection of functions further emphasizes the need for a product manager to be broadly conversant across an organization’s activities. Product management represents a unique role in media companies, where the business and editorial sides have traditionally been viewed as separate and non-interacting functions. But the business and technology climate in the media industry now requires organizations to consider how these functions relate to and affect one another – how technology affects distribution, how users’ habits affect profitability, and how to best engage platforms in the service of both the business’s and audience’s needs.

Project versus Product Management

Sometimes the terms project and product management are used interchangeably. But they are different roles, even if they are handled in some manner by the same person. Project management is specifically focused on delivering project functionality – identifying features, scheduling their execution, and making sure a timeline is adhered to. Projects tend to have a defined beginning and ending. Product management encompasses the broader strategic implications of the entire digital product and its relationship to the organization’s overall strategy. The function can also be described as product leadership or development, although these are often defined as different roles, with product leadership referring to the management of product managers and overall product strategy. Product development specifically focuses on the engineering requirements of the product life cycle.

Methodologies and Processes

Design Thinking

A product manager is responsible for all phases of a product’s lifecycle, from the conception of the idea, through planning, development, testing, the launch and assessment phases, until the product is retired. A methodology that is often used in assisting with the product management process is Design Thinking, originated by the Hasso Plattner Institute of Design at Stanford better known as the d.School in conjunction with the creativity firm IDEO. Design thinking is a process by which problems are better understood and solved by listening to and developing empathy for
potential users. It provides methods for inspiring creativity in a structured manner and quickly developing a prototype for testing and gaining feedback. Design thinking employs various techniques, including brainstorming problem approaches and quickly prototyping a set of solutions that can be tested with users. (You can read more about this process in the Ideation chapter[^32] of this book.)

![Design thinking process](https://socialsci.libretexts.org/Bookshelves/Communication/Book%3A_Media_Innovation_and_Entrepreneurship_(Ferrier_and…)Updated: Thu, 05 Mar 2020 03:03:07 GMTPowered by5)

### The Design Thinking Process

The main purpose of Design Thinking (Figure 2) is to develop empathy for those affected by a problem or issue. This is best done by talking directly to those affected, rather than making unsubstantiated assumptions. Interviewing people and digging into their specific issues will allow for better solution development.

One technique for better understanding a user’s needs is the Five-Whys Method. When asking an interviewee about his or her problem, they are not likely to initially reveal their real issue. One must dig a bit deeper to gain a better understanding of the real issue. For example, if the interview reveals that a person has trouble keeping up with local politics, one can ask a series of “why” questions to get to the heart of the issue.

1. Why do you have trouble keeping up with local politics?
   I’m too busy to pay attention.
2. Why are you so busy?
   I work a full-time job and have little time to read the news.
3. Which social platforms do you check throughout the day?
   I check Facebook in the morning and use Snapchat with my friends.
4. Do you see political information on these platforms?
   No.
5. How would you feel about getting news and information about city government rulings on Facebook and Snapchat…?

And so on. If the interviewer stopped at the initial problem of keeping up with local politics, one might make the assumption the respondent didn’t care or was apathetic about these issues. However, with more probing, one might be able to assess a scenario that would make room in their schedules on platforms they are already using to stay abreast of information that could be important to them.

The next step in Design Thinking is to define the problem. Using the interview data that was captured in the empathy phase, a problem can be identified and crafted into a How Might We…? Statement. For example:

- How might we use video in our political coverage?

[^32]: [Ideation chapter](https://socialsci.libretexts.org/Bookshelves/Communication/Book%3A_Media_Innovation_and_Entrepreneurship_(Ferrier_and…Updated: Thu, 05 Mar 2020 03:03:07 GMTPowered by5)
• How might we better engage our audience around the issue of diversity in the community?
• How might we attract more young people to our products?

How Might We Statements can be developed from the perspective of the user or the organization, but should always have user needs at the core.

Once a How Might We Statement is developed, it is time to ideate. The ideation phase applies creativity in generating a range of ideas for a solution. The purpose in this phase is to quickly generate as many ideas as possible from people with a range of experiences and backgrounds. Again, these ideas should flow from the empathy interview phase. As an ice-breaker, a Design Thinking session may employ a few exercises that have nothing to do with the actual problem. For example, the first few sessions might focus on improving someone’s “wake-up” process or generating ideas by drawing images that represent and build upon potential problems. There are many other techniques that can be used for inspiring creativity in brainstorming ideas. See the Stanford d.School’s Tools for Taking Action.[33]

After the ideation phase, it is time to develop a prototype. A prototype can be a very low-fidelity representation of a solution, that can be as simple as a flow chart developed using pencil and paper. It can be a slightly more elaborate sketch that incorporates color and texture using art supplies. Or it can an interactive design created in a prototyping software program like Balsamiq,[34] Proto.io,[35] Adobe XD,[36] or a mock up using a graphics program like Photoshop.

The goal of the prototype is to quickly and cheaply create a solution that can be used to gain feedback from potential users. This leads to the testing phase where potential users interact with the prototype and provide feedback. Sharing the results of these tests across the product team will allow user input to be incorporated into each product iteration. With each series of tests, a more advanced prototype can be developed which will ultimately lead to working solution.

Agile Methodology

Another phrase often associated with product management is Agile Development. Agile methodologies are characterized as more of a philosophy than a process, based on what is known as the Agile Manifesto[37] It values trust in individuals, completion of tasks and responsiveness to change.

Agile Manifesto

“We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.\[38\]

Agile methodologies are designed to allow products to respond quickly to market needs and changes by being iterative and incremental. Instead of a long, comprehensive development cycle (traditionally known as the waterfall method), products are broken down into smaller pieces or sprints, each creating a deliverable. Communication between product team members is usually handled by daily scrums, or short, stand-up meetings, that allow collaborators to check in on a regular basis.

During a scrum meeting, team members specifically address only three questions: 1) What have you completed? 2) What are you working on? 3) What would prevent you from completing your next activity? Team members typically stand (no leaning!) for these meetings, so that no one gets too comfortable, and they can quickly move on to their work activities.

![Agile Methodology Diagram]

Figure 3. CC BY

An agile sprint culminates with user testing that should lead to modifications for the next sprint and be incorporated throughout product development. As with Design Thinking, feedback from the user testing phase is incorporated in each iteration of the product.

Most product management processes adopt practices from both design thinking and agile development. But the main goal is to remain spry, understand and respond to needs, and to adapt to the environment throughout the development cycle.

**Roles and Skills**

With its overarching responsibility for aligning products across an organization’s functions and mission, the skills required of a product manager are broad and comprehensive. These are a few of the skills that a product manager must demonstrate in order to effectively manage a product team.
Communication – First and foremost, product managers must be great communicators who understand and are passionate about products and audiences. They must be able to lead cross-functional teams and communicate with management across functions. They must also be able to speak to and learn from users to better understand their problems.

Empathy – Product managers must also be able to exhibit empathy, not only for their products’ users, but also the various personnel with whom they collaborate in the organization. They must be able to understand issues through others’ points of views.

Leadership – Across a range of activities, the product role requires leadership ability to lead and motivate cross-functional teams. That means working with people with different communication styles and skills levels, as well as having a high level of understanding across a range of functions at all levels of an organization.

Problem Solving, Innovation and Creativity – Many of the functions a product manager performs will be originated by that position, which means he or she may be the first to encounter it. There is not likely to be a policy or another colleague to provide direction. With the constantly evolving technology environment, product managers are expected to be comfortable and excited about finding creative solutions that can help the product team meet its goals. Product managers must have an appreciation for the ways that innovation and creativity are employed in the digital environment. They must look for new ways to solve problems and new approaches to understanding users’ needs. A product manager must also be able to inspire innovation and creativity in collaborators.

Ability to Execute – A key characteristic of a product manager is a bias toward action. Not only must he or she generate ideas and strategy, but a person in this role must be able to motivate the team to execute deliverables within established deadlines.

Technology Skill – A product manager should have strong technology understanding that allows for strong communication across these key functions. While a product manager will not necessarily use computer programming or design skills, he or she must have a strong understanding of the capabilities of technology and be able to communicate effectively with engineering resources.

Data Analysis – A product manager must understand how to develop and measure objectives and be comfortable making decisions based on data. They must be comfortable in working with metrics and tools for analyzing data.

Journalistic Ethics and Responsibilities – In a media organization, a product manager must also represent the ethics and responsibilities of the media organization throughout the development process. He or she must anticipate how a product will be used and affect the culture in which it is introduced. This is particularly relevant in how an organization guides users in engaging with their platforms and how it uses and shares data generated by their products.

Finally, a product manager must also recognize that their role is emerging and evolving and be able to adapt to changes in technology, processes, and culture.

The role of product manager is a particularly relevant one for mass communication graduates to aspire to in their careers, particularly for those with an emphasis on technology skills. Graduates of mass communication programs who wish to one day become product managers should identify and learn about organizations with a product culture, work on side projects that will enhance their understanding of digital products and processes, and demonstrate their ability to
take initiative and exercise continuous learning.

This area offers particular opportunity for journalism and mass communication academic programs to introduce product management concepts into curriculum. The PhDigital Bootcamp[^39], held in 2018 in the Media Innovation Lab in the School of Journalism and Mass Communication at Texas State University, used product management as the organizing concept in assisting educators in proposing and leading innovative curriculum.

At Ohio University, the Digital Information & Innovation course uses product development to walk students through the development and startup of their own ventures.

### Conclusion

As digital products mature, product management will need to be comprehended as a core process and responsibility of media, as opposed to a technology sideline, offshoot, or tangential activity. As media organizations receive increased scrutiny for the accuracy and truthfulness of their reporting, the digital projects they create will be expected to demonstrate the same responsibilities and judgment.

The role of digital product management is being fulfilled, at least in some of the most innovative news organizations, by the proliferation of technology products presented by news organizations. The broad range of digital media products – websites, mobile applications, bots, and data interactives – demonstrate an increasing complexity as related to news distribution and audience engagement. There are several themes that newsrooms will need to address in developing a product culture, which include the need to work in cross-functional teams; an emphasis on empathy, problem solving and creating value for users; an attention to data; and the need to recruit and develop resources with a combination of communication skills, business sense, and technology expertise.

### Exercises

1. What are some of your favorite digital products and why? Identify the specific features that you enjoy about using these products. For example, what ways can you engage with the product, how is the product interactive, what is the value of the content, and how do visuals function in the product?

2. Create a series of questions to interview people about a problem in media. Talk to at least three people about this problem, recording their responses. Follow up by using the Five-Whys Method for each question. What are the main themes addressed by each of the respondents?

3. Based on your interviews, craft one of the problems into a How Might We…? statement. Using sticky notes, with one sticky note for each idea, quietly brainstorm for 3-4 minutes some potential ways to address the issues. In groups, discuss, review, combine, and categorize each of these ideas and vote on the ones with the most potential. Create a low-fidelity prototype (pencil and paper is fine) to demonstrate your solution.

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**Editor’s Note:** This chapter is new and will undergo its first use and testing in Fall 2018. This chapter is not yet available in the print edition. You can leave feedback using Hypothes.is annotations on the chapter, or [contact us](mailto:contactus).
managing-digital-products-in-a-newsroom-context

2. Ibid.
27. Matt LeMay, Product Management in Practice: A Real-World Guide to the Key Connective Role of the 21st


34. Balsamiq, https://balsamiq.com/


