

DSM 599 Special Topics: Digital Media Product Management

4 -units

Fall 2024 - Section #21898

Day/Time: Monday 6:30-9:20pm, ANN 409abc

Instructor: Shub A
Office: By appointment
Office Hours: By appointment
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Course Description

Product management is one of the most lucrative and in-demand professions in today's job market, attracting individuals from diverse career backgrounds. As companies increasingly recognize the crucial role of product managers in developing customer-centric products and solutions, the demand for product management expertise has grown exponentially.

The revolution sparked by tech giants like Amazon, Google, Apple, and Facebook has transcended industry boundaries, leading organizations across all sectors to strive for enhanced product management capabilities. Visionary figures such as Steve Jobs and data-driven strategists like Jeff Bezos have shown what product management can be at its highest skilled level.

Indeed, product management forms the foundation upon which aspiring business and technology leaders can build successful careers. This course explores the practical concepts that define a product management professional and illuminates why this role serves as an esteemed launching pad for future CEOs, business & technology leaders and startup founders.

For individuals aspiring to enter the realm of product management without prior experience, the process can be perplexing. Many people, including software developers, marketing managers, program managers, project managers, vendor managers, customer success managers, UX designers, and master's degree graduates, have sought guidance on how to make this transition.

In many ways, entering product management as an aspirant resembles a catch-22 dilemma: gaining product management experience is deemed necessary to enter the field, yet gaining such experience necessitates already being in a product management role. This course aims to equip students with the essential skills to become a successful product manager while unraveling the complexities of this catch-22 conundrum.

Course Structure:

This course will have case studies, product management exercises, reflections, guest speakers etc which will give students an understanding of the field.

Course will have following components:

- Gain a comprehensive understanding of product management as a field, exploring digital product management frameworks that provide practical tools for success.
- Engage in hands-on product management work through case studies, discussions, and exercises to develop key skills and gain a detailed understanding of the role.

Supported by:

Learning from industry leaders in product management through guest speakers whenever possible.
 Benefit from their experiences and best practices to enhance your understanding of the field.

Student Learning Outcomes:

The course is going to be useful for students who wish to be product managers, who want to work with product managers in the future (e.g., UX designers, program managers, engineering managers, program managers, etc.), or students who want to see if product management is an appropriate field for them. This course is also useful for students who already have a product management experience and allows them to take their understanding of this space to the next level.

Furthermore, this digital media product management course provides practical frameworks for building software and digital products within large tech companies such as Google, Netflix, Amazon, Meta, Uber, TikTok, etc. and start-ups alike. In addition, the course will be widely applicable and helpful for product management roles in technology departments under non-tech companies (where product management is fast emerging and is today established as a critical function).

You do not have to be a practicing product manager to take this course. The class is fast-paced and we will spend most of our time on applications of product management to real-world problems.

This is a hands-on, learn-by-doing class. Most classes will involve interactive, group exercises and discussions and case studies.

Upon course completion, students will have the proficiency to:

- 1. Delineate the Role of a Product Manager:
- Clarify the scope and boundaries of a product manager's role within diverse organizational structures, whether in tech-centric businesses or where technology is a critical facilitator.

2. Craft Strategic Product Roadmaps:

- Forge product strategies and roadmaps that encapsulate the product's direction and vision, aligning with overarching company goals.

3. Establish Product Success Criteria:

 Set definitive Objectives and Key Results (OKRs) and pertinent product metrics to gauge and guide product success.

4. Articulate Product Requirements:

- Draft comprehensive Product Requirement Documents (PRDs) detailing high-level product necessities.
- Devise and communicate an all-encompassing digital product strategy, confirming product hypotheses and customer requirements meet business objectives.
- Aggregate diverse inputs to formulate a research-supported, prioritized action plan.

5. Master the Product Iteration Cycle:

- Deploy, refine, and enhance products to achieve market success.
- Utilize data-informed reasoning for product evolution decisions.
- Strategize on swaying essential stakeholders in favor of your product vision.
- Steer cross-functional teams with a detailed execution roadmap.

- Strategize for robust product uptake and user retention.
- 6. Execute Effective Product Launches:
- Gain the expertise necessary to navigate a product through the market introduction phase utilizing a well-conceived launch strategy.

Prerequisite(s): Highly Recommended DSM 520. Recommended Preparation: Coursework covering data analytics.

Course Notes:

This course will include purchasing case studies from HBR, and link will be provided to purchase the case. Students are expected to be very well prepared with the case studies and readings prior to the class.

Laptop Policy

All undergraduate and graduate Annenberg majors and minors are required to have a PC or Apple laptop that can be used in Annenberg classes. Please refer to the **Annenberg Digital Lounge** for more information. To connect to USC's Secure Wireless network, please visit USC's **Information Technology Services** website.

Required Readings and Supplementary Materials

Course Materials

Required Case Studies:

Link to HBR case studies will be provided for students to purchase the cases

These can be modified before course starts:

- redBus: Art and Science of Product Management
- WillowTree: Project Driven with a Product Mindset
- Digital Transformation at The Washington Post: Innovating for the Next Generation (bonus)

Required Reading

You will be assigned book chapters and articles to consume in preparation for classes. We recommend you print or get digital copies of these books directly:

These can be modified before course starts:

- Solve Catch22 of product management: Shub A, 2024
- Cracking the PM Career: The Skills, Frameworks, and Practices to Become a Great Product Manager
- Perri, Melissa. Escaping the Build Trap: How Effective Product Management Creates Real Value.
 O'Reilly Media, 2018
- Lean Start-up: Eric Ries
- Bryar, Colin and Carr, Bill. Working Backwards: Insights, Stories, and Secrets from Inside Amazon. St. Martin's Press, 2021.
- Marty Cagen: Inspired, 2020 INSPIRED: How to Create Tech Products Customers Love, 2nd Edition
- Mantle, Mickey and Lichty, Ron. Managing the Unmanageable: Rules, Tools, and Insights for Managing Software People and Teams, 2nd Edition. Addison-Wesley Professional, 2019.
- Marsh, Joel. UX for Beginners: A Crash Course in 100 Short Lessons. O'Reilly, 2016.
- Fadell, Tony. Build: An Unorthodox Guide to Making Things Worth Making. HarperCollins, 2022.
- Grove, Andrew. High Output Management. Vintage, 1995.

Additional Class Readings assigned as course moves forward

Evaluation and Grading

Assignments	% of Grade
Participation (Individual)	15%
Product Critique (Group)	20%
Product Strategy (Group)	20%
PRD Exercise (Group)	20%
Case Studies (Group)	25%
Total	100%

AI Policy:

In this course, we advocate for the integration of AI tools like ChatGPT/Bard, Midjourney, and DALL-E to enrich your educational journey. Mastering AI is a vital, emergent skill, and our website offers tutorials to sharpen your proficiency in these technologies.

However, the efficacy of tools like ChatGPT/Bard hinges on the quality of your prompts—thoughtful, detailed inquiries yield superior results. While AI provides rapid insights, it's critical to independently verify its data for accuracy, as any discrepancies fall under your purview.

For assignments involving AI, transparent disclosure is mandatory. Conclude your work with a brief overview of the AI's role, including the prompts used, without concern for any impact on your assessment. Undeclared AI assistance is a breach of academic integrity and carries repercussions.

Use AI judiciously, choosing scenarios where its application is pertinent and enhances your work.

Assignment Descriptions

Individual Participation (15%)

The participation grade component will be determined by student contributions to lecture and classroom discussion, interactions with guest speakers, and your dedicated focus during the course (no mobile phone usage allowed during class). Students' discussion engagement level will be evaluated by the following criteria:

- Is the student well prepared with the readings and case studies. It is expected that
 you have deeply read through the materials and case studies before the class and
 worked on them beforehand in a structured way.
- Are discussion points relevant? Does the student provide thoughtful analysis, rather than just provide an opinion? Are they proactive in raising hand and engaging?
- Are the comments linked to a common thread that is relevant, and adds to the discussion?
- Does the student exhibit active listening skills?
- Students will be expected to present the learnings from the readings in the class and will also be avaluated based on their insights.

Thinking like a product Manager: Software Product Improvement Analysis (20%)

Students are tasked with crafting a detailed understanding of a well-known product and a particular product area, arguing, and thinking like a product manager. They will then be focused on critique, focusing on their unique insights into enhancing that well-known software product of their preference, assuming the role of a Product Manager. For instance, you might first define what TikTok's mobile application is designed to do and then explore avenues for refining TikTok's mobile application or similarly propose innovations for Instagram Feed.

Your analysis should span 1-2 pages, single-spaced, with evaluations grounded in your adherence to the critical questions specified in our framework focused on thoughtful analysis of business goals and user problems. Successful critiques will showcase strategic prioritization and imaginative problem-solving. Opt for a product that resonates with you personally, as you will extend your analysis of this same product in subsequent strategy cases and the Product Requirement Document (PRD).

Class presentation will be required by each group outlining their analysis and defending their idea. You will present this idea as you will present to a board or your CEO.

Strategizing like a product manager: Product Strategy Case Analysis (20%)

Expanding upon the insights from your Individual Software Product Improvement Analysis, you will delve deeper into the strategic dimension of your selected product. This exercise involves a comprehensive evaluation of the strategic consequences of decisions undertaken by the company and its product team to date. You're then tasked with formulating a cohesive strategy outlining the optimal path ahead for the product.

Your analysis should encompass a minimum of 2 pages, double-spaced, thoroughly addressing the mandatory questions provided. This assignment underscores the synthesis of your initial critique with an elevated understanding of the product's broader strategic context.

Class presentation will be required by each group outlining their analysis and defending their strategy. You will present this idea as you will present to a board or your CEO.

Planning and communicating like a product manager: PRD Exercise (20%)

In their groups, students are urged to consolidate their insights from the product analysis and strategy case, reaching a unified decision on a key issue to address. The task ahead involves crafting detailed product specifications that include an Overview (identifying the Problem, setting Goals, defining the Scope, assigning Roles), Context (outlining Use Cases, stating Assumptions), Proposal (specifying Feature, UX design, Metrics, Test plans), and a section on Tasks & Timeline. Furthermore, discussion on go to market strategy is expected in this document.

Assessments will hinge on the robustness of the proposed idea, the lucidity of its articulation, and the conciseness of the narrative. Submissions should be no less than 2 pages (single-spaced), reflecting a solid command of the course content. Grades will be allocated based on the thoroughness of responses to the questions posed.

Comprehensive PRDs should be composed of:

- A cohesive 4-5 page single-spaced narrative, inclusive of a FAQ segment, supplemented by necessary appendices.
- An in-depth Customer Study section, necessitating notes from a minimum of four user interviews per group participant.

- Plan on a go-to-market strategy so that the technical audience and cross functional partners are aware of how to approach the implementation.

<u>Class presentation will be required by each group outlining their requirements and communicating their plan.</u>
You will present this idea as you will present to your cross functional team of developers and other members.

Case studies (25%)

Students will be tasks to read the case studies assigned in the class (as noted), thoroughly read them and be prepared to discuss them during the class. Students will also be responsible to write a response to the questions posed during the case studies. Every case study discussion will involve class discussion and student presentations.

Product managers are team leaders and collaborators. There is no product manager who can work alone. As this class teaches product management, you will form teams of ~4-5 during the class and all projects will be worked as a group. Individual work is not allowed as this course will be best learned in a team (case study discussions, product management processes).

Course Grading Scale

Letter grades and corresponding point value ranges.

Letter grade and corresponding numerical point range			
95% to 100%: A	80% to 83%: B- B minus)	67% to 69%: D+	
90% to 94%: A-	77% to 79%: C+	64% to 66%: D	
87% to 89%: B+	74% to 76%: C	60% to 63%: D-	
84% to 86%: B	70% to 73%: C-	0% to 59%: F	

Course Specific Policies **Grading Standards**

What each letter grade demonstrates.

Letter Grade	Description
A	Excellent; demonstrates extraordinarily high achievement; comprehensive knowledge and understanding of subject matter; all expectations met and exceeded.
В	Good; moderately broad knowledge and understanding of subject matter; explicitly or implicitly demonstrates good, if not thorough understanding; only minor substantive shortcomings.
С	Satisfactory/Fair; reasonable knowledge and understanding of subject matter; most expectations are met; despite any shortcomings, demonstrates basic level of understanding.
D	Marginal; minimal knowledge and understanding of subject matter; more than one significant shortcoming; deficiencies indicate only the most rudimentary level of understanding.
F	Failing; unacceptably low level of knowledge and understanding of subject matter; deficiencies indicate lack of understanding.

Add/Drop Dates for Session Follow USC Policy

Course Schedule: A Weekly Breakdown
A weekly schedule of the topics, readings, and deliverables for the course.

Course Schedule:

Week	Key Topics	In-Class Activities	Pre-Class Reading/Media	Assignments Due
1	Introduction to product management	Class introductionWelcome & course background.What is product management?	Cracking the PM Career Chapter 1-3	
			 Other assigned readings 	
			 Solve Catch 22 of product management: Chapter 0, 1, 2,3 	
2	Product & Customer Discovery	Product & Customer Discovery Process	4 Steps to Epiphany	
	Discovery	 Student class discussions based on the readings 	 Other assigned readings 	
			Discovery Habits:	
			Build Trap:	
			 Solve Catch 22 of product management 	
3	Overview of PM Role in Large Orgs: Product Vision, Strategy	Case Study discussion and other topics	Escaping the Build Trap Ch 6-8, 10-14	Case Study: redbus due
		What is a product? What is a software product?	Working Backwards, Ch 1, 4, 5	
		Customer problems and goals	Best Practices for Payelening a	
		Outcomes vs OutputsProduct Manager: Orchestrating Success	Developing a Product Strategy -	
		through Execution, Resource Allocation, and Leadership Product Vision and Strategy Deb Liu Solve Catch product		
			product	
		Student class discussions based on the readings.	management	
4	Class Presentations on Product Analysis	Product Analysis presentations based on frameworks & readings discussed in the class	Student presentations	Assignment due/ Class Presentations

5	Internet & software Economics; Planning; People Strategy and influence	 Technological S-curve Innovators Solution Business of platforms Understand products in their unique circumstances Cutting features & product lines Objectives & Key Results (OKRs) Manage without authority: Building trust and relationships and with engineers and cross functional teams Student class discussions based on the readings. 	 Technological Revolutions and Financial Capital, Part I Aggregation Theory - Ben Thompson The Amazon Tax - Ben Thompson Empowered Ch 53 Managing the Unmanageable, Ch 2,7 https://www.codep roject.com/Articles /507909/Establishi ng-a-Successful-Pro gramming-Culture https://www.appcu es.com/blog/cuttin g-features
6		Class focused on discussion of the Case Study and student insights	Case study 2 Due: WillowTree

Week	Key Topics	In-Class Activities	Pre-Class Reading/Media	Assignments Due
7	Instantiating your Strategy via Solutions: Design and Usability, including DEIA	 Is the problem worth solving? Product business case and proposal Iterating and Pivoting based on evolving needs Alignment with company vision and strategy User needs & use cases Usability: Mocks & Storyboards Value propositions PRD & SMART Metrics Student class discussions based on the readings. DEIA: Design and Sustainability in product designs 	 Escaping the Build Trap Ch 15-19 UX for Beginners, pp. 2-20, 128-139, 145-166 On Writing Product Specs - Gaurav Oberoi 	

8	Class Presentations	Class presentations for product strategy		Assignment Due/ Class presentation product strategy and stakeholder responses due
9	Prioritization frameworks, Experimentation, and Go-to-Market Strategies	 Prioritization & tradeoffs How to build a roadmap A/B testing, multivariate testing Why do we need a carefully crafted GTM plan: do good products succeed in the market automatically? The key collaborators of a GTM plan (roles of PM, PMM, Strategy, Finance, and Ops) The GTM framework: Who, What, Where, How, When Product innovation with GTM in mind (GTM is not an after-thought) Student class discussions based on the readings. 	 Crossing the Chasm Escaping the Build Trap Ch 3 Working Backwards, Ch 6 High Output Mgmt, Ch. 3-6 Managing the Unmanageable, Ch 5,9 https://roadmunk.com/guides/product-prioritization-techniques-product-managers/ 	Reserved time for additional presentations
10	Advisory Sessions	Advisory sessions on PRD write-ups		
11	PRD presentations due	PRD presentations due		Initial PRD presentation and stakeholder responses due
12	Growth and Monetization	 Scaling up and outreach Tech revenue models Earning Tactics: Ads or Subscriptions? Flywheel effects Product Purpose Digital Health Influence Without authority Student class discussions based on the readings. 	 Escaping the Build Trap Ch 4-5, 20-22 Working Backwards, Ch 4,10 What is a business model - Andrea Ovens 	
13	Class Presentations	PRD presentations.		Final PRD presentation due

14	Advisory Session/ Guest Lectures	 Getting the Job as a product Manager Interview types and frameworks 	Bonus Case Study Due
15	Advisory Session/ Guest Lectures	Class reserved for advisory sessions/ Guest lectures	
	Exam Week		Final PRD due

Important note to students: Be advised that this syllabus is subject to change - and probably will change - based on the progress of the class, news events, and/or guest speaker availability.

Statement on Academic Conduct and Support Systems

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the <u>USC Student Handbook</u>. All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

Academic dishonesty has a far-reaching impact and is considered a serious offense against the university. Violations will result in a grade penalty, such as a failing grade on the assignment or in the course, and disciplinary action from the university itself, such as suspension or even expulsion.

For more information about academic integrity see the <u>student handbook</u> or the <u>Office of Academic Integrity's website</u>, and university policies on Research and Scholarship Misconduct.

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment or what information requires citation and/or attribution.

Course Content Distribution and Synchronous Session Recordings Policies

USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation, is prohibited. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor.

(Living our Unifying Values: The USC Student Handbook, page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relation to the class, whether obtained in class, via email, on the internet, or via any other media. Distributing course material without the instructor's permission will be presumed to be an intentional act to facilitate or enable academic dishonestly and is strictly prohibited. (Living our Unifying Values: The USC Student Handbook, page 13).

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osas.frontdesk@usc.edu.

Student Financial Aid and Satisfactory Academic Progress:

To be eligible for certain kinds of financial aid, students are required to maintain Satisfactory Academic Progress (SAP) toward their degree objectives. Visit the <u>Financial Aid Office webpage</u> for <u>undergraduate</u>- and <u>graduate-level</u> SAP eligibility requirements and the appeals process.

Support Systems:

Annenberg Student Success Fund

The Annenberg Student Success Fund is a donor-funded financial aid account available to USC Annenberg undergraduate and graduate students for non-tuition expenses related to extra- and co-curricular programs and opportunities.

Annenberg Student Emergency Aid Fund

Awards are distributed to students experiencing unforeseen circumstances and emergencies impacting their ability to pay tuition or cover everyday living expenses. These awards are not intended to cover full-tuition expenses, but rather serve as bridge funding to guarantee students' continued enrollment at USC until other resources, such as scholarships or loans, become available. Students are encouraged to provide as much information in their application, as well as contact their academic advisor directly with questions about additional resources available to them.

Counseling and Mental Health - (213) 740-9355 - 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

988 Suicide and Crisis Lifeline - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline consists of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL) - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-2500

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

<u>USC Department of Public Safety</u> - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

About the instructor:

Professor Shub A teaches product management, AI, and analytics courses at USC Annenberg. He is a seasoned product management and technology leader with a wealth of experience. Shub has held leadership roles across Fortune 50 companies, including Amazon, where he led key initiatives in AI and product innovation. Along with his time at Amazon, he gained significant experience working in both traditional industries and Silicon Valley start-ups, providing him with a broad and versatile perspective that he brings to the classroom.

His industry experience spans hi-tech, retail, travel, artificial intelligence, and financial services, with leadership roles such as SVP of Product Management in Data and AI at US Bank and Director of Product Management & Technology at the Financial Industry Regulatory Authority (FINRA), where he played a pivotal role in regulating financial markets across the United States.

Shub's expertise covers AI, product management, technology strategy, digital product management, business strategy, analytics, digital marketing, and corporate social responsibility. He is passionate about mentoring and advising early-stage startups, leveraging his extensive industry knowledge to guide the next generation of innovators. With several US patents in Artificial Intelligence, Machine Learning, and Customer Experience, along with published technical research papers, Shub is also a published author.

He holds dual Master's degrees: a Master of Science with honors in Information Systems from Carnegie Mellon University (CMU) and an MBA from the University of California, Los Angeles (UCLA). Additionally, he has participated in executive education programs at the Massachusetts Institute of Technology (MIT). Connect with

Shub on LinkedIn: https://www.linkedin.com/in/shub/