Hiring for Creativity in a World of UX Design Systems

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Abstract

In digital product organizations, design systems have enabled speed and consistency by structuring design work as the assembly of predefined components. Design is recognized as a creative activity, but assembly work typically is not, and this shift may have an impact on how creativity is realized in the workplace. To find out, we conducted seventeen interviews with executive-level design managers in mid-sized and large companies.

The data reveal a tension: leaders depend on designers who can work within system constraints that demand assembly-level consistency, yet when hiring, they value candidates who challenge assumptions, reframe problems, and propose unexpected solutions. Portfolios, however, often show neither, a gap many managers attribute to the rapid-training pipelines of contemporary bootcamps. Managers express concern that the systems enabling efficient production may be narrowing the range of skills they see when hiring, leaving a profession caught between creative ideals and the industrial machinery shaping modern product design.

CCS Concepts

• **Human-centered computing → Interaction design**.

Keywords

Design, Careers in computing, Design careers, Bootcamps, Component libraries

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1 Introduction

In software organizations, user experience (UX) designers are hired to ensure digital products are usable, useful, and desirable. Their work spans phases of design typically divided into exploratory and production efforts. The *exploratory phase* is often framed as creative: it includes qualitative research, problem framing, diagramming, collaborative workshops, and the generation of diverse solutions. This phase values ambiguity, divergent thinking, and structured conflict. In contrast, *production design* focuses on the detailed work required to ship software. Here, designers make interface-level decisions, document specifications, and resolve implementation constraints in close collaboration with engineers [33]. Historically, designers have been expected to work across both phases; this is reflected in the "double diamond" model, where designers move between broad exploration and narrow convergence and execution [7].

But the profession is changing, and many companies now rely on modern design systems: libraries of reusable components [5], governed by internal rules that promote consistency while limiting creative interpretation [6]. These systems reduce ambiguity, standardize output, and purposefully constrain authorship—emphasizing production design at the expense of exploratory design [12].

Some practitioners have expressed discontent with these changes. Davis argues that standardized templates have produced a homogenized aesthetic, which he sarcastically calls "Sameness as a Service" [9]. Alterio argues that "digital design will eventually become akin to a manufacturing job"—with creativity entirely marginalized [1]. Pelcl indicates a perceived betrayal of the discipline's promise of self-expression, curiosity, and problem solving, and urges designers to "shift our focus from governance and rule-setting to nurturing creativity and innovation." [27] While these claims are often polemic and perhaps overly amplified, they suggest an unresolved dissonance between design's operational role and its creative aspirations.

If these claims are realistic representations of the current profession of user experience design, design education needs to change. Students will need to exhibit competence in different skills in their portfolios as they prepare to enter the workforce, and their expectations of what to expect in a design career need to be recalibrated towards something more akin to manufacturing than to creative exploration.

There is an opportunity and a need to examine this dissonance by researching how design managers—those who hire junior user experience designers in mid-sized and large companies—perceive creativity in practice. How do they define it? Do they value it? Do they see it in candidates' portfolios, when hiring? And how do design systems and production pressures shape their expectations? Through qualitative interviews and discursive analysis, this paper explores whether creativity remains a desirable quality in industry, or if it has become a dated idea in a profession defined increasingly by assembly.

2 Positionality Statement

My experiences and perspectives shape the design and interpretation of this research. I come to this work as a designer with a longstanding professional practice in user experience and creative industries, and as a design educator. My perspective is informed

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by decades of hands-on work, a critical stance toward the commercialization of design education, and an ongoing commitment to understanding how creativity is fostered, constrained, and misunderstood in design practice. I am deeply concerned about the prospects facing design students who are completing their studies and preparing to begin their careers. Rather than claiming neutrality, I view my subjectivity as a resource that allows me to approach this inquiry with both critical distance and insight based on experience.

3 The relationship between user experience design, creativity, and Design Systems

3.1 Creativity in user experience design

Scholarly research has proposed many definitions of creativity. One of the most frequently cited is Runco & Jaeger's "Standard Definition of Creativity," where they explain that "originality is undoubtedly required… if something is not unusual, novel, or unique, it is commonplace, mundane, or conventional. It is not original, and therefore not creative." [28] Cross ties this more closely to design, describing a creative leap as "the recognition of a satisfactory bridging concept that provides the illumination of the creative flash of insight." [8] In the context of professional design work, creativity has been equated to innovation, and innovation in turn to a strategic part of experience strategy; GE's former CEO Jeffrey Immelt has described innovation as the "only way out of the abyss called commodity hell." [20]

Creativity in user experience design builds on these definitions, and in this paper, creativity refers to the way problems are solved [2], to produce design ideas that selectively deviate from any accepted standard or precedent [18], and that may ignore business requirements and technical constraints, or that cause stakeholders to question their assumptions [25]. These designs are often motivated by contextual research findings or through the evaluation of business needs, or driven by discussions with product management. They are typically conceptualized through sketching, embodied in artifacts like user flows and journey maps, and then further refined through ideation sketching, mid- and high-fidelity mockups, and prototyping [4].

3.2 Design systems

Design systems have emerged in user experience design practice as comprehensive sets of interface elements and heuristics that guide design. These systems are often branded, signaling the importance of the system to the design team; some, such as Google's Material, are offered for free and have been widely adopted [32].

Design systems are made up of user-interface controls (such as buttons or checkboxes), components (such as a navigation element or a content card), patterns (such as ways of handling large lists, or paradigms for inline editing), and guidelines (for extending existing system elements in new ways to match new product needs). [31] Some systems are more extensive, providing animations, entire layouts, and even a system of "values, beliefs and best practices." [10]

These design systems provide some benefits. They make interface design faster, as a designer can drag, drop, and customize the elements rather than creating them new each time they are used. Design systems ensure continuity and consistency of aesthetics and interactions across screens, which benefits usability and learnability. Large teams can work with confidence that their designs fit into the larger product ecosystem seamlessly [10, 32]. These systems provide a way for companies to brand and differentiate their designs [32]. And, the systems can be integrated into a development workflow; changes in the design system can, with minimal effort (or in some systems, automatically) flow into working code. In some cases, the systems even have accessibility best practices integrated automatically [31].

In addition to these benefits of speed, consistency, and development integration, one might expect to find benefits that tie design systems to creativity. Design systems might encourage designers to explore more solutions, and more diverse solutions, to a problem; the use of design systems might afford rich participatory design work by giving users simple tools to express their wants and needs; and design systems might act as tools for stakeholders in a corporation to express their product visions in a more robust manner than a presentation or discussion.

However, it can be argued that these systems are actually having a negative impact on creativity and innovation. The ease of construction may encourage designers to skip exploration and jump directly into implementation. The uniformity of the system, offering benefits of consistency, may simultaneously devalue differentiation. And the focus on interface may have deprioritized user-centric and broad thinking about interaction design. As a practicing user-experience consultant, I have observed these behaviors with many of my clients, and as an educator, I have seen students embrace a "Figma-only" approach to design, where they immediately begin constructing user interfaces without exploratory thinking. The benefits of design systems may be having a detrimental impact on the way user-experience work is being done; if this is true, it has implications on how we think of our profession, and how we train students to become designers.

The purpose of this research is to explore the hypothesis that the relationship between practicing user experience designers and creativity has undergone a fundamental change in the last decade, a change that has *celebrated production design (with a specific focus on assembly through the use of design systems)* and has simultaneously *devalued creativity.*

The broad hypothesis is broken into two research focus areas.

4 Research Focus Areas

4.1 Focus area one: the role creativity plays when hiring junior user experience designers

The first research focus area examines how creativity in user experience design is understood in companies where software production is governed by efficiency and standardization [29]. In these environments, the development of digital products often emphasizes what can be described as "assembly production." Yew et al. quote Suarez in describing a design system as "a collection of reusable components, guided by clear standards, that can be assembled together to build any number of applications," [32] and Figma—the creator of the nearly ubiquitous software used by designers today [30]—explains that design systems rely on predefined components

and patterns intended to promote consistency and speed. In these systems, much of a designer's work involves assembling existing elements rather than generating wholly new ones [13, 14].

Assembly production in user experience design typically involves working on narrowly scoped features, adhering to an established design system, and following predetermined interaction patterns. This model is intended to support predictable outputs and faster development timelines, consistent with findings that design systems help standardize user interaction design and enable teams to efficiently build interfaces across products [21].

The design system has emerged as a central artifact in a broader "product/tech/design" working model. In this model, design is sometimes positioned as a service function—responsible for interpreting requirements, translating them into interface designs, and producing artifacts that can be implemented with minimal technical friction. Time and resources are limited, and design work is expected to align closely with sprint cycles and product roadmaps [16]. Within this framework, design is rarely treated as a strategic activity that drives innovation. Instead, it is optimized for execution, and so it requires an execution-focused set of design skills, emphasizing designing for code reusability, maintaining brand standards, and rapid prototyping rather than slow and methodical exploration [32]. Competency in Figma, along with the ability to maintain visual consistency and follow system rules, are often prioritized in hiring and evaluation. At the same time, research on user experience practice in production-oriented environments highlights that interpretive skills—such as reframing problems, questioning assumptions, or proposing solutions that deviate from precedent—tend to be less visible and are often undervalued within organizations that position design as a service function aligned to engineering constraints [17].

Design has often been associated with open-ended exploration, the development of unique ideas, and a willingness to challenge or depart from assumptions. It aligns with strategic thinking and ideation—activities that historically formed the foundation of design practice and education [23]. In contrast, the operational creativity described above involves executing within limits and optimizing user flows without fundamentally altering the underlying problem structure. This form of creativity still requires judgment and skill, but is constrained by the logic of production. This version of creativity is incremental and detail-oriented, often invisible to those outside the team, and difficult to assess in hiring processes.

This study explores how hiring managers hire within this context. Are they only seeking individuals who can operate efficiently within systems? What forms of traditional creativity are still desired, if any? And, is this change perceived as good or bad?

4.2 Focus area two: how hiring managers assess if a junior user experience designer will be a good hire

This second focus area examines how hiring managers interpret the signals of creativity that appear in candidates' portfolios. Portfolios highlight things a candidate has made in the past so that a hiring manager can hypothesize about how a candidate might perform in the future [19]. What should be in these portfolios now, given the change in creativity and design as assembly? If the role being filled is production-oriented—defined by design system adherence and component assembly—then hiring managers may look for signs of precision, speed, and tool ability. Conversely, if the role involves strategic exploration, problem framing, and generative ideation, then portfolios would presumably need to demonstrate those capabilities.

This alignment between portfolio content and role expectations becomes especially important in hiring less experienced designers, where candidates lack extensive experience to draw on. Many junior candidates—especially those emerging from short-form training programs—show portfolios that emphasize methods, a limited understanding of aesthetics, and work that follows a formulaic and idealized (but unrealistic) approach to design [24]. These portfolios tend to follow a highly linear, standardized format [22], which may obscure evidence of creativity—particularly if that creativity involves non-linear thinking, problem reframing, or divergence from norms.

If there is a preference for one type of candidate over another, this raises a further question of the role of design education. Design managers are presented with candidates from a mix of educational backgrounds, including four-year design programs, HCI master's degrees, and accelerated user experience bootcamps. These programs differ in duration, structure, and philosophical orientation.

Bootcamps often prioritize tool training, speed, and outcomes [26]. As a result, student portfolios from these programs may reflect an ability to execute within a narrow brief, rather than the capacity to reshape that brief. This study investigates whether managers interpret this as a lack of creativity, or as a function of educational context.

This research also explores the criteria that managers use when reviewing portfolios. These may include the originality of the work, the articulation of design decisions, the integration of research, or the presence of visual and interaction-level craft. Managers may also look for indicators of independent thinking—such as deviations from prescribed methods, novel interface proposals, or reflective commentary on tradeoffs. This study asks whether these indicators carry significant weight in hiring decisions.

5 Study Design

Semi-structured, 1:1 interviews were conducted via Zoom with senior-level design managers. An interview protocol was used to guide the interviews, containing questions related to four topics. The first topic focused on the participant's personal design experiences and their role in their company. The second topic explored their views on creativity and how it shows up in their job, and if design systems were used in their company. The third topic discussed their practices and opinions about hiring designers. The fourth topic discussed their perspectives on design education. At the conclusion of the interview, the participant performed a card sort of items that might be important qualities for a junior experience designer to possess. Their prioritizations were discussed. In each interview the interviewer introduced themselves and described the purpose of the research, and gained the participant's informed consent, including permission to record the interview. All interviews were conducted in June and July, 2025. Each interview was recorded and transcribed. The interviews ranged in length from 60 to 90 minutes.

Table 1: Participant Information

ID	Pseudonym	Title	Age	Experience in years	Number of direct or indirect reports
1	Kristine	Head of Design	40	21	3
2	Chris	Senior Manager of Design Systems	40	18	9
3	Laura	Head of Product Design	47	15	13
4	Karlos	Vice President, Design	54	15	6
5	Pete	Director of Service Design	44	14	2
6	Dan	Senior Manager of Product Design	32	12	25
7	April	Vice President, User Experience Design	50	25	150
8	Carla	Associate Design Director	35	13	5
9	Kerry	Senior Associate, Design Strategy	44	13	50
10	Jim	Senior Design Director	52	25	15
11	Matthew	Vice President, Experience Design	56	25	18
12	Aaron	Director of Product Design	36	14	8
13	Melvin	Vice President, Product Design	60	25	7
14	Linda	Director of User Experience Design	49	28	6
15	Gerry	Senior Manager of User Experience	54	30	3
16	Kat	Director of Digital Design Research	58	40	3
17	Alex	Experience Design Manager	44	22	8

5.1 Ethics and data collection

The interview study was approved by the researcher's institution's Institutional Review Board, and included gaining verbal informed consent from each study participant. The recorded interviews and transcripts were stored on a secure university drive with access restricted to the researcher. Personally identifiable information was removed from the transcripts, and participants were given pseudonyms, which are used throughout this text.

5.2 Participants

Participants were selected who (i) held senior design roles, such as design manager, design director, creative director, or vice president, (ii) were employed at mid-sized or large digital product organizations (companies with more than 250 employees), (iii) were involved in hiring designers, and (iv) spoke English. Participants averaged 47 years old with 21 years of experience, and managed, on average (either directly or through management hierarchy), 19 designers.

5.3 Data analysis

A hybrid approach was used to analyze and synthesize the data, combining reflexive thematic analysis with discourse analysis. This dual method allowed for both the identification of recurring themes [3] and the examination of how language constructs social reality, power, and identity within the context of design practice [15].

First, categories were developed in a bottom-up fashion through visual mapping of similar utterances across interviews. These categories were framed as action-oriented statements from the perspective of a hiring manager (e.g., "I ask questions in interviews related to the use of visual design methods"). These statements were then grouped into broader insight themes—interpreted as patterns in how hiring managers describe the evaluation of creativity, the role of design systems, or their perceptions of junior talent.

Next, individual transcript segments associated with each theme were re-analyzed using Gee's Building Tasks of Language, specifically focused on Significance ("What is being made more or less important, and how?"), Identity ("What identity is being enacted, resisted, or attributed—to self or others?"), and Sign Systems and Knowledge ("What knowledge systems, norms, or assumed ways of doing/knowing are being invoked?") [15] This discursive layer helped surface how participants construct meanings, assert values, and position themselves within organizational hierarchies and cultural shifts in the design field.

A narrative of findings combined these insights with supporting quotes, demonstrating both what was said and what saying it accomplished. These findings were then compared to the study's original hypotheses and used to critically reflect on the assumptions made about creativity.

6 Findings

The results of this study indicate that design managers in mid-sized and large corporations uniformly use design systems in their work to ensure consistency and streamline software production. They see value in moving quickly and in working within a limited framework of pieces and parts. These managers require junior designers to use these systems, which make up a majority of the job for these less experienced designers.

However, at the same time, design managers value junior design candidates who can challenge existing assumptions, question requirements, and produce unexpected or novel solutions to problems. They do not see evidence of these abilities in design portfolios when hiring, and they fear that design systems are eliminating the need for these creative skills entirely.

This creates a strong contradiction. The findings, and this incongruity, are explored in more detail below.

6.1 Software design has become largely about assembling interfaces from pieces

Across these interviews, many leaders spoke as though the commoditization of software design is not just inevitable, but already here. They framed this as a structural evolution deeply rooted in formalized processes and tools. At the center of this evolution is the design system. Linda described it with color: "...the Holy Grail of having consistent interaction design, look and feel, tone of voice, architecture, and it's, gosh! It's the foundation that we use to start any of the detailed design."

For Laura, the system brought order to a world that had felt improvised and chaotic: "My products came out of a startup culture, and everything is a little bit janky, like some buttons are this height. Some buttons are green over here. It looks different over there. Everything is just kind of a mess." Gerry, too, spoke about the system's practical benefits, noting how it allowed his team to move quickly and keep work aligned, while Melvin explained how his own system enabled him to rationalize multiple navigation bars and accelerate development cycles.

Yet, even as these leaders praised the strategic gains in speed and consistency, they were far less enthusiastic about how design systems shape day-to-day work. Pete offered a striking metaphor: "We only have four colors, you can use whatever combination you want to. Have fun. You're like, well, I like the color blue. I don't see blue here. Well, good luck. That's your problem." His comment carries the frustration of a constrained palette masquerading as freedom. Karlos was even more direct, calling the automation "by definition, contrary to creativity." Kerry echoed this sentiment, describing systems as dehumanizing—"you have to be like a cookie cutter machine"—while Jim called them "stagnant… there's not very much at all creative about the design system."

Not all leaders saw systems as purely restrictive. Some described them as scaffolds that still leave room for expression. April reflected on the often-repeated LEGO metaphor: "Is building something with LEGOs creative? Maybe not, if you're following the instruction booklet, but if you're trying to build something custom to what you need, I think that's creative." Her framing suggests that creativity is not removed so much as reframed: designers are given a starting point, but innovation depends on how they work within it.

What emerged in several conversations was a sense that this kind of creativity is unevenly distributed—treated as a privilege, not a baseline expectation. Alex described how junior designers often want to jump straight to invention: "I see junior designers try to dunk the ball before they can make a good pass… but it's really important that you learn to paint the fence and wax the car." His words frame creativity as something earned through mastery. Kristine went further, describing an intentional division within her team: "It's important for maybe 75% of my team to be creative. I'd say that for the other 25%, it's just important for them to 'do'… to whip stuff out." In some organizations, then, exploratory creativity is positioned as a reward for discipline and tenure, while a significant portion of the team is expected to focus solely on execution.

This division also shapes hiring practices. Regardless of how each leader framed creativity inside their team, all agreed that candidates must already be fluent in design systems and the tools that support them. Laura was unequivocal: "Unless they've spent time perfecting Figma hands-on skills, they're not gonna get hired by me." Linda offered an even starker example: one of her colleagues no longer reviews portfolios at all—"she just asks them to open their latest Figma file." In this context, tool fluency and system adherence have become the table stakes for entry, while the kind of creativity leaders claim to value remains aspirational, reserved for those who earn the chance to exercise it.

6.2 Design leaders see their nostalgia colliding with software production

Interviewees repeatedly describe a conflicted posture: they are responsible for staffing teams that can execute within strict systems, yet when they hire, they want to see the kind of creativity they themselves once practiced—back when the profession was immature and product development was far less streamlined. This tension shows up in the way they talk about design and in the way they talk about hiring.

For many, questioning requirements and challenging assumptions are still seen as the highest forms of creative contribution. Carla put it plainly: "I don't think you're very creative if you just accept everything at face value." Dan more directly shared the same sentiment: "If they accept established assumptions, don't hire this person." These reflections reveal that what managers want to see in a candidate is not just craft skill, but evidence of curiosity, skepticism, and a willingness to re-shape problems rather than merely solve them.

When these leaders describe what they hope to find in a portfolio, they often reach back to their own formative years in design. Karlos recalled a time when the field felt alive with experimentation: "I grew up working in websites that were really fun to see, really, really crazy designs, really new things. Now everything is pretty standard. It's pretty boring." Dan expressed a similar sentiment, tempered with self-awareness: "Maybe this is just me getting old… but I feel we have lost the exploratory inquisitive nature of design." These recollections are filled with nostalgia, but they also highlight a fundamental mismatch between the design culture that shaped them and the one they now oversee.

That nostalgia becomes more complicated when positioned against operational demands. Jim spoke to this contradiction: "I want someone who will challenge us, but I'm also looking at how fast they can deliver inside our system. It's both." Portfolios that surprise and delight are celebrated in theory, yet surprise can be disruptive in environments that prioritize consistency. Pete captured this tension in how he evaluates candidates: he wants designers who can "cut through the computer, and somehow make me feel your voice, like you give a shit," but he tempers that desire in practice: "probe, challenge a little bit… not scorched earth, though."

Several leaders reflected on how this contradiction plays out after hiring, as junior designers encounter the reality of the work. Linda described the process as a kind of rite of passage, watching idealism wear down over time. Dan was blunt about the cost: "I think everyone's creative. I think some people just have it more beaten out of them than others."

The nostalgia in these conversations is not naïve—it is grounded in real experience. Yet the hiring decisions these leaders make reveal the friction between those memories and the current demands

of their teams. They want both challenge and compliance, both surprise and stability. When forced to choose, most hire for the work that needs to be done now, even as they quietly wish they could hire for the kind of design that inspired them in the first place.

6.3 Bootcamps are oversaturating the field with unprepared designers

Design managers repeatedly tied the portfolios they review to the educational paths candidates have taken, and nearly all voiced concern that schools—especially bootcamps—are producing designers who can run a process but cannot dig deeply into a design problem. Carla was skeptical of the value of these programs: "You're trying to teach in 12 weeks what we did in 4 years. And it's not possible." Others echoed her view, describing a pipeline optimized for speed rather than mastery. Matthew added nuance, pointing not to student effort but to the structure of the programs themselves: "I'm not saying they're evil or anything… I think a lot of people were just being sold a bill of goods. You'll go through this program in six or twelve weeks and you'll graduate and get a job? That's just not the case. It's not a nursing program."

Across participants, there was a shared sense that these compressed paths yield portfolios heavy on surface-level methods and light on authentic problem framing. Jim described what he sees over and over again: "I've seen the formula. Here's the problem. Here's the executive summary of what I did. Here's the linear story of how I did it, starting with the sketches. And then the research. Probably 90% of portfolios are like that, and it gets really tired." Laura was even more cutting in her assessment, calling much of it "high-school-level UX work." For these leaders, the sameness signals a lack of independent thinking. Portfolios that follow this pattern become evidence not just of weak candidates, but of a discipline shifting toward shallow assembly.

This perception shapes the hiring process in tangible ways. Managers spoke of scanning portfolios for any sign that a candidate had gone beyond the basics—any spark of curiosity, rigor, or risk-taking that broke the template. Yet the volume of formulaic submissions often drowns out those signals. Gerry recounted posting a role and receiving "over 1000" applicants—"everybody and their brother and sister"—only to find that the majority "ran the gamut of all the tools that they had learned in boot camp, and they threw in design, language systems, it was always the same." His frustration underscores a broader fatigue with an oversaturated market of look-alike portfolios.

However, not every manager ties potential to formal education. Several emphasized that what matters most is what a candidate can show. Jim explained, "I think your portfolio, your actual work and your actual professional experience is what's gonna make me want to hire you. Not, did you go to this college or this boot camp." Kristine herself didn't graduate with a bachelor's degree, and Matthew noted, "There are so many good designers I know who don't have a bachelor's degree, or any degree." In their view, the credential matters less than the evidence of thought and craft. But the reality they describe is that many applicants, particularly those from bootcamps, are offering neither—and in a field where a single job post results in thousands of applicants, those applicants have a very, very poor chance of getting a job.

7 Discussion

The findings of this study reveal a central contradiction in user experience design. Design managers speak with conviction and passion about the value of creativity—framing it as essential to strong design judgment, critical inquiry, and expressive authorship—yet they simultaneously oversee environments where design systems, component libraries, and production pressures leave little room for these qualities to be put to use. Many of the research participants now see the job of user experience design as one of largely *moving LEGO pieces around*—a phrase used nearly verbatim by eight different leaders in this study.

This distinction—where creative thinking is sought after in theory but marginalized in practice—shows up most acutely during hiring. Managers emphasize that they look for signs of creativity in junior candidates, such as novel ideas, dissent from assumptions, problem framing, and aesthetic judgment, but feel that portfolios rarely demonstrate these qualities. Participants repeatedly tied the portfolios they review to the educational paths candidates have taken. Bootcamps were the most frequently mentioned, not necessarily as malicious, but as constrained by their format: short timelines and intense but standardized projects lead to shallow abilities.

This critique is backed by empirical research in other disciplines: for example, Feldon et al. found that bootcamp-style programs in doctoral education showed no measurable improvement in research skill development, productivity, or socialization, but that participants *felt* productive because the format was intense and compressed [11]. In the context of UX, the bootcamp model mirrors the structure of design systems themselves: fast, modular, and execution-focused. These are qualities that stand in direct tension with how managers define creativity, but may actually be the qualities that are required to do the work.

Counterintuitively, then, hiring managers are surrounded by candidates who can do the job of "user experience as assembly," yet are looking for someone who has been trained to do a *different* job, based on their own nostalgia and convictions around what they view as a more magical, strategic form of design. And the implications for candidates are equally muddy, as they are caught between a need to show curiosity, depth, and rule-breaking, but also to illustrate that they can behave appropriately in the context of a highly constrained, systematic approach to software production.

While design systems and educational programs are clearly pushing the field toward operationalization, the desire for creativity—as voiced by the managers in this study—suggests a split. One branch of the field may continue toward industrialized assembly, while the other reclaims creativity as a site of professional identity, judgment, and resistance.

As this split deepens, educators must respond. Academic programs must decide whether they are cultivating designers for the strategic, exploratory branch—where, as Melvin puts it, "creativity is connecting dots in a surprising way; how is a raven like a writing desk, as the saying goes?"—or for the operational, system-driven

branch, where, in Linda's words, designers should produce "a solution that fits within the design system, or that you're willing to die on the hill for."

This research has made clear that the use of design systems is a fundamental part of the job of a junior designer, and a recommendation for educators is to adapt foundation studies that may teach fundamentals of drawing, color theory, typography, and other base design skills to include content related to the creation and use of design systems. This will ensure that graduates can perform the assembly part of the job of user experience design.

But simply adding design systems to an existing curriculum is not enough, and addressing the issues highlighted through this research in a lasting manner will require a more fundamental rethinking of how design education is performed. Bootcamps were one attempt at creating a new educational model, and this research has shown the attempt is considered by design leaders as largely ineffective. There is room for other exploratory models of teaching and learning design, and given the urgency facing junior designers in finding a job, the onus rests on educators to proactively explore these alternative models.

8 Limitations

This study focuses on creativity as it shows up at the point of production, rather than across the full range of activities performed by user experience designers. It does not examine earlier phases of work, such as qualitative research, insight generation, problem framing, journey or experience mapping, and other exploratory activities typically associated with UX. As a result, the analysis may be read as reducing user experience design solely to user interface design.

This is a recognized limitation of the study. While it can be hypothesized that design systems also shape these earlier phases of design, this influence is not empirically examined here. Understanding how design systems impact exploratory work remains an important area for future research on creativity and user experience design, beyond production-focused design activities.

References

[1] Joe Alterio. 2025. *Small Jobs, Small Dreams: The Future of User Experience.* Retrieved February 7, 2025 from https://uxdesign.cc/small-jobs-small-dreams-7ed46faf46b0

[2] Teresa M. Amabile, Sigal G. Barsade, Jennifer S. Mueller, and Barry M. Staw. 2005. Affect and Creativity at Work. *Administrative Science Quarterly* 50, 3 (2005), 367–403. doi:10.2189/asqu.2005.50.3.367

[3] Virginia Braun and Victoria Clarke. 2012. Thematic Analysis. In *APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative, Neuropsychological*, Harris Cooper Biological, Paul M. Camic, Debra L. Long, A.T. Panter, David Rindskopf, and Kenneth J. Sher (Eds.). American Psychological Association, Washington, 57–71. doi:10.1037/13620-004

[4] Bill Buxton. 2007. *Sketching User Experiences: Getting the Design Right and the Right Design.* Morgan Kaufmann, Oxford, England. doi:10.1016/b978-0-12-374037-3.x5043-3

[5] Elizabeth F. Churchill. 2019. Scaling UX with design systems. *Interactions* 26, 5 (2019), 22–23. doi:10.1145/3352681

[6] Josh Clark. 2023. *Ship Faster by Building Design Systems Slower.* Retrieved February 7, 2025 from https://bigmedium.com/ideas/design-system-pace-layers-slow-fast.html

[7] Design Council. 2005. *The Double Diamond: A Universally Accepted Depiction of the Design Process.* Retrieved February 7, 2025 from https://www.designcouncil.org.uk/our-work/skills-learning/tools-frameworks/framework-for-innovation-design-councils-evolved-double-diamond/

[8] Nigel Cross. 1997. Creativity in Design: Analyzing and Modeling the Creative Leap. *Leonardo* 30 (1997), 311–317. Issue 4. doi:10.2307/1576478

[9] Noah Davis. 2025. *AI Didn't Kill Web Design—Templates Did It First. Web Designer Depot.* Retrieved February 7, 2025 from https://webdesignerdepot.com/ai-didnt-kill-web-design-templates-did-it-first/

[10] Jenya Edelberg and Joseph Kilrain. 2020. Design Systems: Consistency, Efficiency & Collaboration in Creating Digital Products. In *Proceedings of the 38th ACM International Conference on Design of Communication* (Denton, TX, USA) *(SIGDOC '20)*. Association for Computing Machinery, New York, NY, USA, Article 8. doi:10.1145/3380851.3416743

[11] David F. Feldon, Soojeong Jeong, James Peugh, Josipa Roksa, Cathy Maahs-Fladung, Alok Shenoy, and Michael Oliva. 2017. Null Effects of Boot Camps and Short-Format Training for PhD Students in Life Sciences. *Proceedings of the National Academy of Sciences* 114, 37 (2017), 9854–9858. doi:10.1073/pnas.1705783114

[12] Therese Fessenden. 2024. *Design Systems 101.* Retrieved February 7, 2025 from https://www.nngroup.com/articles/design-systems-101/

[13] Figma. 2023. *The Designer's Handbook For Developer Handoff.* Retrieved February 7, 2025 from https://www.figma.com/blog/the-designers-handbook-for-developer-handoff/

[14] Figma. 2023. *What is a Design System?* Retrieved February 7, 2025 from https://www.figma.com/blog/what-is-a-design-system/

[15] James Paul Gee. 2005. *An Introduction to Discourse Analysis: Theory and Method* (2 ed.). Routledge. doi:10.4324/9781315819679

[16] Jeff Gothelf and Josh Seiden. 2013. *Lean UX: Applying Lean Principles to Improve User Experience.* O'Reilly Media.

[17] Colin M. Gray, Austin L. Toombs, and Shad Gross. 2015. Flow of Competence in UX Design Practice. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (Seoul, Republic of Korea) *(CHI '15)*. Association for Computing Machinery, New York, NY, USA, 3285–3294. doi:10.1145/2702123.2702579

[18] J.P. Guilford. 1950. Creativity. *American Psychologist* 5 (1950), 444–454. Issue 9. doi:10.1037/h0063487

[19] Wenrui Huang, Jason Jabbari, Yung Chun, and Ranen Miao. 2024. Conceptualizing Alternative Training and Education in Computer Science: A Scoping Review of Coding Bootcamps. *SSRN Electronic Journal* (2024). doi:10.2139/ssrn.5001270

[20] Jeffrey R. Immelt, Vijay Govindarajan, and Chris Trimble. 2009. How GE Is Disrupting Itself. *Harvard Business Review* 87 (2009). Issue 10. https://www.hbs.edu/faculty/Pages/item.aspx?num=48478

[21] Yassine Lamine and Jinghui Cheng. 2022. Understanding and Supporting the Design Systems Practice. *Empirical Software Engineering* 27 (2022). Issue Article 146. doi:10.1007/s10664-022-10181-y

[22] Matej Latin. 2024. *90 percent of designers are unhirable?* Retrieved February 7, 2025 from https://matejlatin.com/blog/90-percent-of-designers-are-unhirable/

[23] Jeanne Liedtka. 2013. Design Thinking: What It Is And Why It Works. (2013). https://www.designatdarden.org Darden School Working Paper No. DSWP-13-01.

[24] Craig M. MacDonald, Emma J. Rose, and Cynthia Putnam. 2022. An industry in flux: where does UX go from here? *Interactions* 29, 2 (2022), 54–58. doi:10.1145/3511671

[25] Rahul Mohanani, Burak Turhan, and Paul Ralph. 2021. Requirements Framing Affects Design Creativity. *IEEE Transactions on Software Engineering* 47 (2021), 936–947. Issue 5. doi:10.1109/TSE.2019.2909033

[26] General Assembly n.d. [n. d.]. *User Experience Design Bootcamp.* Retrieved February 7, 2025 from https://generalassemb.ly/students/courses/user-experience-design-bootcamp

[27] Matic Pelcl. 2025. *We're Turning Designers Into Factory Workers.* Retrieved February 7, 2025 from https://uxdesign.cc/were-turning-designers-into-factory-workers-a7471daaf6fd UX Collective.

[28] Mark A. Runco and Garrett J. Jaeger. 2012. The Standard Definition of Creativity. *Creativity Research Journal* 24 (2012), 92–96. Issue 1. doi:10.1080/10400419.2012.650092

[29] Phoebe Sengers, Kirsten Boehner, Shay David, and Joseph 'Jofish' Kaye. 2005. Reflective design. In *Proceedings of the 4th Decennial Conference on Critical Computing: Between Sense and Sensibility* (Aarhus, Denmark) *(CC '05)*. Association for Computing Machinery, New York, NY, USA, 49–58. doi:10.1145/1094562.1094569

[30] U.X. Tools. 2024. *Design Tools Survey 2024.* Retrieved February 7, 2025 from https://uxtools.co/survey

[31] Shahtab Wahid. 2024. Design Systems Are Accessibility Delivery Vehicles: Making accessibility support for applications scalable, productive, and consistent. *Queue* 22 (2024), 73–85. Issue 5. doi:10.1145/3704443

[32] Jude Yew, Gregorio Convertino, Abla Hamilton, and Elizabeth Churchill. 2020. Design Systems: A Community Case Study. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (Honolulu, HI, USA) *(CHI EA '20)*. Association for Computing Machinery, New York, NY, USA, 1–8. doi:10.1145/3334480.3375204

[33] John Zimmerman, Jodi Forlizzi, and Shelley Evenson. 2004. Taxonomy For Extracting Design Knowledge From Research Conducted During Design Cases. In *Futureground '04: Conference of the Design Research Society (Proceedings, CD-ROM* (Melbourne, Australia). https://www.cs.cmu.edu/~johnz/pubs/2004_FutureGround.pdf