

TOPICAL REPORT

DESIGN & INNOVATION

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DESIGN THINKING



Public health is in crisis. Design thinking could help

"Together designers and public health professionals can make a great impact on people's health."
Source: Fast Company

Design thinking: 9 ways to get started

"Design thinking can help you get closer to your customers' wants and needs. These expert tips will help you begin using this methodology in your organization"
Source: Enterprises Project

Needed: A More Expansive View Of Design Thinking

"It takes design thinking to do digital transformation right. That's the word from Teonna Akinsete and Kenton Hankins, both with Pega. In an insightful post, they describe the essence of design thinking as "co-production" with end-users of software and related products, to "encourage empathy and collaboration.""
Source: Forbes

Creating New Solutions to Old Challenges: Design Thinking in the Law

"Innovation is a buzzword that many in the legal industry use as a way to describe their approach to solving legal challenges, or as a differentiator for their organization in a sea of highly

DESIGN INNOVATION



Deep Learning and Design Innovation

"Increasingly, design innovation is gaining prominence in the marketplace, with a growing number of firms innovating not only technologically but also visually. However, while measures of technological innovation, both on quantity and quality, have been standardized, less is known on ways to gauge design innovativeness. This study addresses this gap by answering: whether and if so, how does design innovation is measured?"
Source: RUID Academy Conference 2020

Design in the Age of Artificial Intelligence

"Artificial Intelligence (AI) is affecting the scenario in which innovation takes place. What are the implications for our understanding of design? Is AI just another digital technology that, akin to many others, will not significantly question what we know about design?"
Source: Harvard Business School

Frameworks for innovation, collaboration, and change: Value creation wheel, design thinking, creative problem-solving, and lean

"The value creation wheel (VCW) is the decision-making meta-

DESIGN



Are you asking enough from your design leaders?

"we interviewed 200 senior design leaders and 100 top executives and analyzed the answers of more than 1,700 respondents to the McKinsey Design Index (MDI) survey tool. What we found was striking: some 90 percent of companies weren't reaching the full potential of design, even as, in the past five years, double the number of companies have added senior design roles to their organization."
Source: McKinsey

competent and capable firms competing for sought-after clients." Source: Law.com

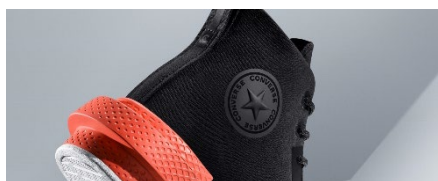
Design thinking starts with redefining the role customers play in your product strategy

"To develop a customer-led design philosophy, companies must change its approach to improve collaboration with engineers and marketing teams." Source: MarTech Today

Design thinking: an agile method for innovation

"Design thinking eschews traditional development processes in favour of an agile, flexible method for developing products and services with a unique focus on the customer" Source: Tech Central

INNOVATION



How Converse Uses Materials Innovation to Reimagine Design

"With reimagination at the core of Converse's DNA, the latest iteration comes in the form of advances in fit, form, sizing and function through a suite of materials innovations intended to deliver superior comfort. The materials toolkit will inform the way Converse builds its footwear going forward and is acutely dubbed 'CX.'" Source: Nike

A Crisis of Ethics in Technology Innovation

"In this new world of publishing — where authors, editors, and distributors are separate entities pursuing their own interests — the scandalous consequences may seem predictable. After all, accountability also splinters with the rest of the value chain. But when no one steps up to maintain ethical standards across the system, we all suffer in the end." Source: MIT Sloan

Philippe Starck's Latest Design Innovation Is High-End Eyewear That Doesn't Need Screws

"Among the most prolific designers of his generation, Philippe Starck hasn't slowed for a moment in his decades-long career. The multi-faceted creative has turned his sights to eyewear where he developed an innovative collection entitled Sphere free of screws or welds." Source: Yahoo

ENTREPRENEURSHIP

framework recommended to address innovation, collaboration, and change challenges in formal relationships. The VCW can integrate, complement, or be joined with other frameworks, tools, and theories to address the challenges of formal relationships." Source: Briefings in Entrepreneurial Finance

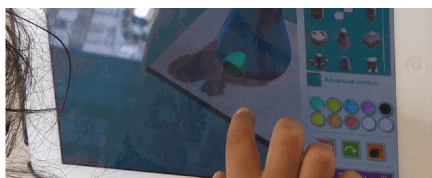
Gaming the system: How user innovation has transformed the video game industry

"One of the features of modern business is the increased involvement of customers in product and service development. Managers are consistently being told to engage with customers more and create a feedback loop so that what they develop can be enhanced." Source: Strategic Direction

Designing Well-Being: Using Design Thinking to Engage Residents in Developing Well-Being Interventions

"esign thinking (DT), or human-centered design, is an approach to problem solving that focuses on understanding emotions and human dynamics and may be ideally suited to tackling well-being as a complex problem. The authors taught residents to use DT techniques to identify, analyze, and address organizational well-being challenges." Source: Academic Medicine

DESIGN EDUCATION



Children's views on making and designing

"This paper will focus on children's views on their making and design capabilities. There is a paucity of research investigating learning in makerspaces particularly for younger children." Source: European Early Childhood Education Research Journal

Design Thinking in Education: Perspectives, Opportunities and Challenges

"The article discusses design thinking as a process and mindset for collaboratively finding solutions for wicked problems in a variety of educational settings. Through a systematic literature review the article organizes case studies, reports, theoretical reflections, and other scholarly work to enhance our understanding of the purposes, contexts, benefits, limitations,



When Entrepreneurial Passion Backfires

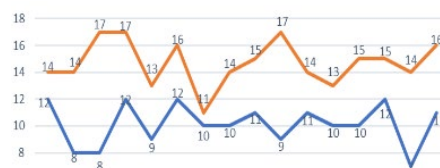
"We conducted a study to understand how passion affects entrepreneurial teams. By conducting surveys with 107 tech teams participating in an accelerator program, we found that diversity of passion among individual team members — in terms of how passionate they are, and what they're passionate about — had a negative relationship with team performance, due to conflicting emotions and identities within the team. We also found that high diversity in passion is more harmful during the later stages of venture development."

Source: Harvard Business Review

affordances, constraints, effects and outcomes of design thinking in education."

Source: Open Education Studies

DESIGN THINKING



Design Thinking for Futuristic

Skills Development using

Project-Based Learning (PBL)

Approach: A Preliminary Study

"The teaching and learning methods adopt Project-Based Learning (PBL) to provide industry required skills to the graduates. It plays a vital role for problem solving and determine innovative solutions. However, Design thinking(DT)strengthen the innovation to enhance the solutions dynamically. The futuristic skills seek for integrated Technology based innovation for design, develop and apply to social needs which integrates critical thinking, problem solving, and communication and leadership skills."

Source: Test Engineering and Management

From knowledge and skills to digital works: An application of design thinking in the information technology course

"Design thinking, an innovative methodology, is used to guide the instruction of traditional subjects to cultivate students' 21 st century skills. However, little research has clearly explained whether incorporating design thinking into the instruction of traditional subjects affects the achievement of curriculum goals. Therefore, this study aimed to explore the effects of design thinking during the instruction, in terms of reaching curriculum goals."

Source: Thinking Skills and Creativity

Getting Radical: Using Design thinking to Tackle

Collaboration Issues

"Design Thinking (DT) has recently been adopted in some higher education disciplines as an effective pedagogical approach to enable students to acquire the skills needed for solving real world problems. As a human-centered, iterative process, design thinking is characterized by working with others to understand, define and solve problems using empathy, creativity, and radical collaboration."

Source: Papers on Postsecondary Learning and Teaching

To Frame or Reframe: Where Might Design Thinking Research Go Next?

"Design thinking is gaining widespread attention in the practitioner and academic literature. Successful implementation has been documented, and its value shown in empirical studies. There is little examination, however, of how design thinking practices fit with other approaches from which firms might choose to frame and solve problems such as agile, lean startup, scientific method, Six Sigma, critical thinking, and systems thinking. By digging into the basic capabilities underlying design thinking, academic researchers might better understand problem framing and solving in general and provide insight for practitioners as to where alternative approaches might be applied."

Source: California Management Review

Digitally-Mediated Design Thinking Ideation

"This paper reports the results of a case study developed around a workshop implemented at the 12th international conference on Computer-Supported Collaborative Learning. Both the focus and the design of the workshop centered around design thinking: the workshop itself was developed to enact the design thinking process model, while the process was leveraged to encourage the generation of creative ways to facilitate digitally-mediated ideation."

Source: 2020 American Educational Research Association

Designing a Design Thinking Approach to HRD

"This article considers the value of design thinking as applied to a HRD context. Specifically, it demonstrates how design thinking can be employed through a case study drawn from the GETM3 programme. It reports on the design, development, and delivery of a design thinking workshop which was created to draw out and develop ideas from students and recent graduates about the fundamental training and skills requirements of future employment. "

Source: International Journal of HRD Practice, Policy and Research 9International Journal of HRD Practice, Policy and Research

Design Thinking in Industry

"Creating the right product is a consistent topic of debate for competent product management. The issue is not always about creating something new as per the set-out specifications but rather whether the result is exactly aligned with customers' needs. A product can only be useful and considered a success if

it is a necessity or exceeds expectations. The missing element is the customer, or rather what the customer exactly wants."

Source: IEEE Systems

Design Thinking

"Continuously innovating their portfolio is a key challenge for practically all companies. Regardless of size, companies today rely on the ability to innovate to maintain their competitiveness. Their performance depends on efficiency when mobilizing internal knowledge and fostering collective intelligence. In that sense, design thinking, with its mix of analytics and intuition, provides valuable support to product management and is a necessary step to improve user experience."

Source: IEEE Systems

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