

1. Record Nr.	UNINA9910559389003321
Titolo	Design thinking in education : innovation can be learned // Christoph Meinel, Timm Krohn, editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer Nature Switzerland AG, , [2022] ©2022
ISBN	3-030-89113-5
Descrizione fisica	1 online resource (288 pages) : illustrations
Disciplina	600
Soggetti	Creative ability in business Creative ability in science Technological innovations Disseny industrial Educació Innovacions tecnològiques Resolució de problemes Creativitat Creativitat en els negocis Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Translated from German.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Foreword -- Acknowledgements -- Contents -- Editors and Contributors -- Introduction: Design Thinking in the Field of Education -- 1 HPI School of Design Thinking -- 2 Hasso Plattner Design Thinking Research Program -- 3 D-Schools International -- 4 Design Thinking International -- 5 HPI Academy-DT in the Field of Continuing Education and Corporate Training (Professional Education) -- Design Thinking in Higher Education Setting -- Design Thinking-Enabling Digital Engineering Students to be Creative and Innovate -- 1 Why Design Thinking is an Integral Part of Digital Engineering Education at the HPI -- 2 Design Thinking Balances Different Creative Approaches -- 3 Effects of Design Thinking Education on Digital Engineering Students -- References -- Mastering

the Fundamentals of Design Thinking by Teaching the Skills of Improvisation -- 1 Introduction -- 2 Training Improv Skills for Team-Based Design -- 3 Improvisation and Cognition -- 4 Designing the Story -- 5 Re-thinking the "How Might We" Question -- 6 Teaching the Core Skills -- 7 The Basic Rule -- 8 A Few Notes on Improv -- 9 Making Mistakes -- 10 Teaching the Skills -- 11 The Exercises -- 11.1 "Yes, And!" -- 11.2 Playing the Game -- 11.3 Reflection -- 11.4 How It Relates to Team-Based Design -- 11.5 "What Cha Doin'?" (Aka: What Are You Doing?) -- 11.6 Playing the Game -- 11.7 Reflection -- 11.8 How It Relates to Team-Based Design -- 12 We Are All Improvisers -- References -- Combining DT and Entrepreneurship Education: The DTE-Model -- 1 Motivation -- 2 Entrepreneurship Education and Entrepreneurial Opportunities -- 3 Integration of Design Thinking into Entrepreneurship Education -- 4 The Design Thinking and Entrepreneurship Model (DTE Model) -- 5 Discussion -- References -- Massive Open Online Design: Learning from Scaling Design Thinking Education -- 1 Introduction. 2 Challenges of Design Thinking MOOC Design -- 2.1 MOOC Design Challenges -- 2.2 Challenges for Design Thinking MOOCs -- 3 Major Learnings from ProtoMOOC to MOOC #1 -- 3.1 Introducing an Iteration Approach -- 3.2 MOOC #1: "Inspirations for Design: A Course on Human-Centered Research" -- 3.3 Learning Interventions and New Items: MOOC #1 -- 4 Interventions for MOOC #2 -- 4.1 MOOC #2: "Human-Centered Design: From Synthesis to Creative Ideas" -- 4.2 Learning Interventions and New Items: MOOC #2 -- 5 Interventions for MOOC#3 -- 5.1 MOOC #3: "Human-Centered Design: From Synthesis to Creative Ideas" -- 5.2 Learning Interventions and New Items: MOOC #2 -- 6 Summary -- References -- Design Thinking, Neurodesign and Facilitating Worthwhile Change: Towards a Curriculum for Innovation Engineering -- 1 Introduction -- 2 Developing Curricula for Innovation Education by Facilitating Worthwhile Change -- 3 Course Content and Imparted Skills in Innovation Engineering -- 4 The Creative Process in Class -- 4.1 The Role of Domain Expertise in Creative Developments -- 4.2 Empathy, Personal Passion and Vision as Drivers of Ground-Breaking Innovation -- 5 Team Teaching and Collaboration Networks -- References -- Walls, Furniture, People-Theoretical and Practical Aspects of Space in Design Thinking -- 1 Introduction -- 2 Foundation: Theoretical Principles of (Innovation) Space -- 2.1 Understanding and Perceiving Space -- 2.2 Space in Design Thinking -- 3 Construction Plan: Typology of the Innovation Space in Design Thinking -- 3.1 Functions of the Innovation Space in Design Thinking -- 3.2 Levels of the Innovation Space in Design Thinking -- 3.3 Users of the Innovation Space -- 3.4 Typology -- 4 Selecting and Using Furnishings and Equipment: Design Elements and the Space as an Instrument in Design Thinking. 4.1 A Project in Itself: How to Plan the Space and Select Furnishings and Equipment -- 4.2 The Fundamentals of Equipment: Elements of the Design Thinking Space -- 4.3 Let us Move It: Space as an Element in Design Thinking -- 5 Discussion and Outlook -- References -- Where Context Matters-Design Thinking in South Africa -- 1 Introduction -- 2 Framing Design Thinking Within the South African Context -- 2.1 The Maturity of the Design Discipline in South Africa -- 2.2 Skills of the Future -- 2.3 Drive for Entrepreneurship Within South Africa -- 2.4 The Complexity of Local Challenges -- 2.5 South African Cultural Diversity -- 3 Summary -- Integrating DT and Entrepreneurship: Case Study Universidad Mayor (Chile) -- 1 The Latin American Context -- 2 The Entrepreneurial Spirit -- 3 A New Perspective -- 4 From the Idea to the Plan -- 5 Our Mindset, the First

Design Thinking Coaches and Workshops -- 6 An Important Step, Institutionalizing D-School Universidad Mayor -- 7 Connection with Universidad Mayor's Academic Model -- 8 D-School Results on Workshops and Curricular Incorporation -- 9 Our Next Steps -- Towards a Culturally Responsive Design Thinking Education -- 1 Introduction -- 2 Culture and Design Thinking -- 3 Culturally Sensitive Coaching -- 4 Language -- 5 Learning by Doing, or One-Size Fits All? -- 6 Conclusion -- References -- Design Thinking in Professional Education and Organizational Contexts -- Design Thinking for Leaders-Made Possible by Innovation and Agility -- 1 Introduction -- 2 Design Thinking Mindset -- 3 Leadership Practices -- 3.1 Create and Communicate a Clear Vision -- 3.2 Build Systems to Learn and Experiment -- 3.3 Enable Autonomy -- 3.4 Foster Psychological Safety -- 4 Summary and Outlook -- References.

Human-Centeredness in Professional Education - On the Use and Application of a Human-Centered Approach in the Field of Professional Education -- 1 Human-Centered Approaches in Professional Education Program Development: Experience-Apply-Transfer -- 2 The Concept of "Hacks" -- 3 The Cardboard Cut-Out Persona-An Example of the Creation and Application of a Hack -- 3.1 Problem Description -- 3.2 Approach to Finding a Solution -- 3.3 The Hack -- 3.4 Observed Effects of the Hack -- 3.5 Further Iterations and Applications of the Hack -- 4 Further Hacks Related to Introducing Human-Centered Innovation Work -- 5 Summary -- References --

Strategic DT as a New Instrument for Leadership in Digital Transformation -- 1 How Has Design Thinking Evolved from an Innovation Method to a Strategy for Cultural Transformation? -- 2 Which Findings from Learning Theory Help Users to Understand the Benefits of Strategic Design Thinking? -- 3 How Can Any Innovator Derive Specific Strategic Principles from the Method Application? -- 4 Design Thinking "Hacks-Why Does It Make Sense to Think Big and to Start Small in the Processes of Digital Transformation? -- 5 How Can Strategic Design Thinking Help to Guide the Implementation of an Agile Transformation Strategy? -- References -- The Certification Program for Design Thinking Coaches at the HPI Academy -- 1 Introduction -- 2 Motivation for the Program-Quality Ensures Acceptance -- 3 Target Group and Vision -- 3.1 Who is the Target Group? DT Natives Versus DT Immigrants -- 3.2 What is the Vision of a DT Immigrant Coach? -- 4 Principles of the Certification Program -- 4.1 Certification Requires Training -- 4.2 Certification Requires Practical Experience -- 4.3 Certification Needs User-Centeredness -- 5 Structure of the Certification Program -- 5.1 The Workshops: DT Mindset and Train-The-Trainer -- 5.2 Practice Days.

5.3 Master Classes -- 6 Conclusion -- Outlook: Design Thinking in Education for the Big Picture -- Beyond Brainstorming: Introducing medgi, an Effective, Research-Based Method for Structured Concept Development -- 1 Introduction -- 2 The Problem with Brainstorming -- 3 medgi in Depth -- 4 Training for medgi -- 5 Conclusion -- References -- Design Thinking and the UN Sustainable Development Goals: Design Thinking and Youth Empowerment Case Study ForUsGirls (US) and Start-up Africa (Kenya) -- 1 Issue -- 2 Approach -- 3 Perspectives and Way Forward -- References -- Contextualizing Design Thinking With Multiple Intelligences: The Global SUGAR Program as a Case -- 1 Motivation -- 2 The SUGAR Program for Design Thinking Education -- 2.1 Historical Roots and Members -- 2.2 SUGAR's Approach to Design Thinking -- 2.3 Organization of the SUGAR Network -- 2.4 Project Examples and Successes -- 2.5 Flemo/Vimcar (Startup) -- 2.6 IRIS/Visense (Startup) -- 2.7 Wheeebo (Corporate

Product) -- 3 The Evolution and Revolution Stages of the SUGAR Program -- 3.1 The Past-Empathy with the Human -- 3.2 The Present-Empathy to Collaboration -- 3.3 The Future-Empathy to the World -- 4 Conclusion -- 5 Disclaimer -- References -- IQ Grows in WeQ Mode -- 1 Not Only Learning from Crises -- 2 The Learning World Needs Change -- 3 Networked Thinking and Acting -- 4 Why Bologna Must Be Reformed -- 5 Rethinking Education Means Changing Perspectives -- 6 The Learning World of the Twenty-First Century -- 7 Launch into the Hybrid Learning Environment.

---