

先导版发布

设计未来学科建设蓝皮书

Forerunner edition

Blue Book on Design Futures Discipline Construction

An transdisciplinary program
oriented by perspective strategy



A report by the Global Design Futures Network (GDFN)



前言

Preface

我们正处于人工智能技术的迅猛发展以及后人类时代转型的关键时期，一方面科技主导的力量日益增强，数字化、智能化、网络化的产品与服务系统日趋成为转型方向，另一方面到的伦理和社会人文应该如何引导技术走向成为讨论焦点。随着科技发展所带来的机遇、期待与危机，商业、社会、哲学、教育等领域对可持续发展以及未来社会图景的构建开展深度思考，设计学科也面临变革与发展。

为响应“未来素养”（Futures Literacy）提出的应对未来的能力框架，以预见（Foresight）和战略（Strategy）为核心的跨学科研究已经成为海外众多院校的培养方向，因此，设计学科的专业建设正面临新一轮转型机遇和挑战。设计未来（Design Futures）这一融合学科正是将设计思维与未来思维结合，着眼于探索短期与长期未来对当下社会的影响。

We are in a critical period of rapid development of artificial intelligence technology and transformation in the post-Anthropocene. Along with the **opportunities, expectations, and crises** brought about by the development of science and technology, business, society, philosophy, and education are focusing on sustainable development and the construction of **future social scenarios**. The design discipline is also facing change and change growth. We urgently need innovative ideas to look at times of change and more resilient approaches to pursuing a preferable future to respond to multiple uncertainties in the future.

In response to **Futures Literacy**, UNESCO proposed a capability that people can **understand and use the future** in the uncertain world. Therefore, Many overseas universities have started up Interdisciplinary methods such as **Foresight and Strategic planning**.

前言

Preface

在全球格局急剧变化的当下，基于发展“可持续和有复原力的社会”的目标指向，需要人们建立“为什么”以及“如何”设想未来的认知。我们亟需创新的理念去审视时代变革，更弹性的方法以追求合意的未来，以应对未来多种不确定性。本研究通过对全球设计未来教育项目现状的调研，从本体论角度分析教学内容，方法论和思辨性工具。

本报告由全球设计未来网络（Global Design Futures Network）自2022年1月发起编纂，通过对20个国家，38个院校或研究机构设立课程或研究项目的教学内容为基础，通过案例调查、深度访谈、问卷调查等方法，归纳出设计未来学科特点，知识体系和培养目标，为构建面向远景战略规划目标的交叉学科提供全面的理论方法体系，为具备“未来塑造力”人才培养提供新思路和新范式。

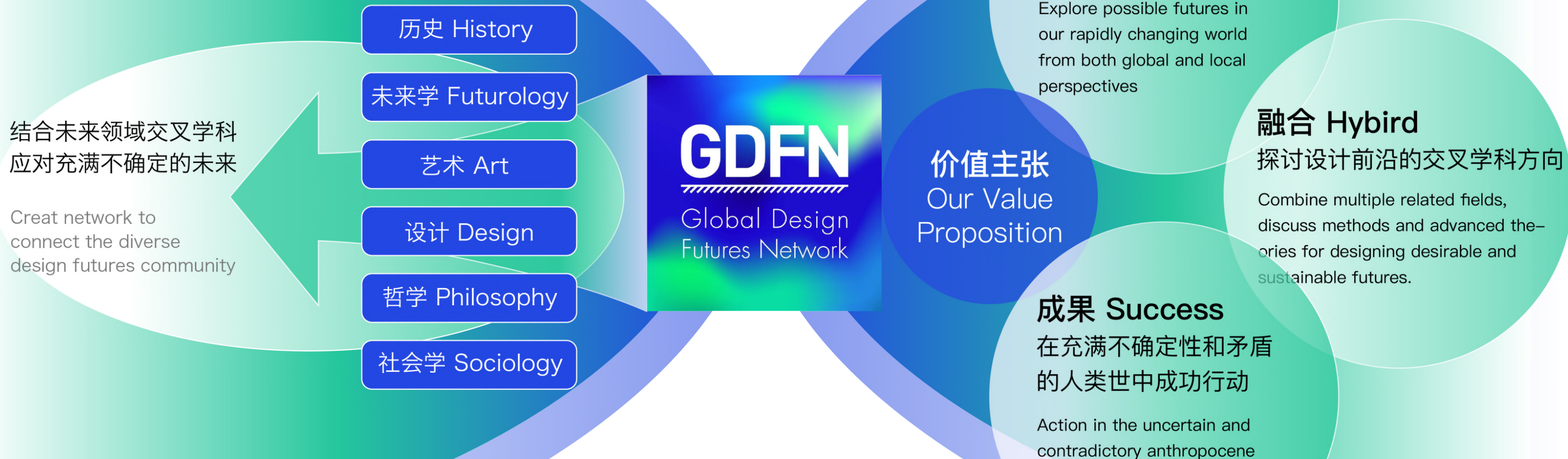
Design Futures, an integrated discipline that combines design thinking with future thinking, focuses on exploring the impact of the short-term and long-term future on current society.

This report has been launched and edited by the **Global Design Futures Network (Global Design Futures Network)** since May 2022.

Based on the curriculum or research projects established in **38 institutions** or research institutions in **20 countries**, the report summarizes the **pedagogy, knowledge constructions, and goals** of all the **Design Futures Program** through case surveys, in-depth interviews, and questionnaire surveys. It provides a comprehensive theoretical methodology for constructing transdisciplinary courses oriented to strategic planning objectives.

项目发起 Sponsors

全球设计未来网络 Global Design Futures Networks



我们的目标是结合未来领域交叉学科，如历史、未来学、艺术、设计、哲学、社会学等.....应对和引领充满不确定性的未来。

Our goal is create network to connect the diverse design futures community that spans multiple related fields such as history, futurology art, design, philososophy, sociology, and so forth.

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2. Overview of Design Futures Education

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4. Challenges and Future Trends

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1 设计未来背景 Background of the Design Futures

为什么需要设计未来？

**Why do we need
Design Futures?**

人类世： 地球系统进化史上的一次冲击

“The Anthropocene:
A shock in the evolutionary history of the earth system”

— 威尔·斯特芬 地球系统学家
Will Steffen , Earth System scientist

The COVID-19 pandemic has exposed a globalized world that is interconnected and closely linked in rapid change.

The reality of the **Anthropocene**, where system-wide turmoil is increasing, calls for transformative change for **a sustainable future**. Emerging technologies, social innovation, broader shifts in cultural elements, and a diverse mix of active management of human activities to support a **resilient biosphere** are highlighted as important components of this **transformation**.

冠状病毒病(COVID-19)暴露出快速变化并且紧密互联的全球化世界。

同时体现出**人类世 (Anthropocene)** 的现实，是由人类活动驱动的全球生态、经济和政治环境的动荡加剧。

由此呼吁为实现**可持续的未来和有韧性的、有恢复力的生物圈进行变革**。这种变革包括新兴技术、社会创新、更广泛的人文要素转变，以及对人类活动的积极管理呈现的多样化组合。

如何做好准备 以应对人类世的严峻挑战？

人与自然的“游戏规则”的变化，让人类福祉前所未有的挑战。

虽然生态学家、自然资源保护主义者和环境科学家呼吁采取激进的行动来扭转这些威胁，但他们**应对变化的管理行动往往停留在过去**。

Climate disruption, hydrological changes and ecosystem degradation reflect both threats to human well-being and changes in the "rules of the game".

While ecologists, conservationists and environmental scientists call for radical action to reverse these threats, their own **management actions to tackle climate are often stuck in the past**.



How to prepare for the profound challenge of the Anthropocene?

Ethics of technology

Economic shocks

Society ideology reformed

Ecological imbalance

Political situation

Technology & information explosion

Futures and foresight :

Starting in the future and working back to today

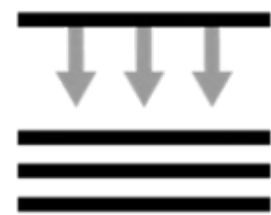
未来学和预见方法：从未来回溯当下

Framework Foresight

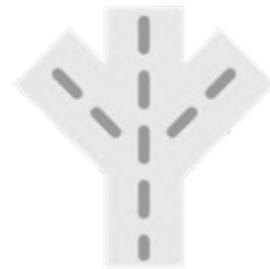
休斯顿大学科技学院开发的预见框架



Framing



Scanning



Futuring



Visioning



Designing



Adapting

To develop a “start-to-finish” future view , to explore its implications, to develop proposed responses



Foresight Program University of Houston , College of Technology

Foresight is the study of change that uses a systematic methodology to explore the future in order to make better decisions today by helping us move us toward the futures we want and avoid those we don't, and to ultimately build confidence in the future by building our capacity to avoid surprise!

— Andy Hines , Program coordinator of Foresight

The goal of Foresight: To prepare for multiple potential futures

预见的目标：为多种潜在未来做好准备

《变革我们的世界：2030年可持续发展议程》
等教育、生态各领域项可持续发展目标和指标
框架的战略报告



“The inability to speak with precision and certainty about the future is no excuse for silence... It is more important to be imaginative and insightful than to be one hundred percent ‘right’.”

-Alvin Toffler. Future shock



促进设计教育范式转型，
需要以**未来为导向的设计思维**。

Futures-Oriented design
thinking is called for in this
transformative trend.

We need a new pedagogy to
integrate **design thinking**
and **future thinking**.

“未来学家帮助客户将他们通常对未来的狭隘关注**扩展到更广泛的可能性**。他们预测未来，不仅仅是为了将未来作为一种抽象的描述来了解，而是将其作为一种**具体的现实来准备**。目标不仅仅是知道将要发生什么，而是为将要发生的任何事情做好准备……意外的出现意味着准备不足，反应迟缓，这会让失败的风险更高，甚至导致混乱或恐慌。因此，为各种可能的未来做准备是远见的目标。”

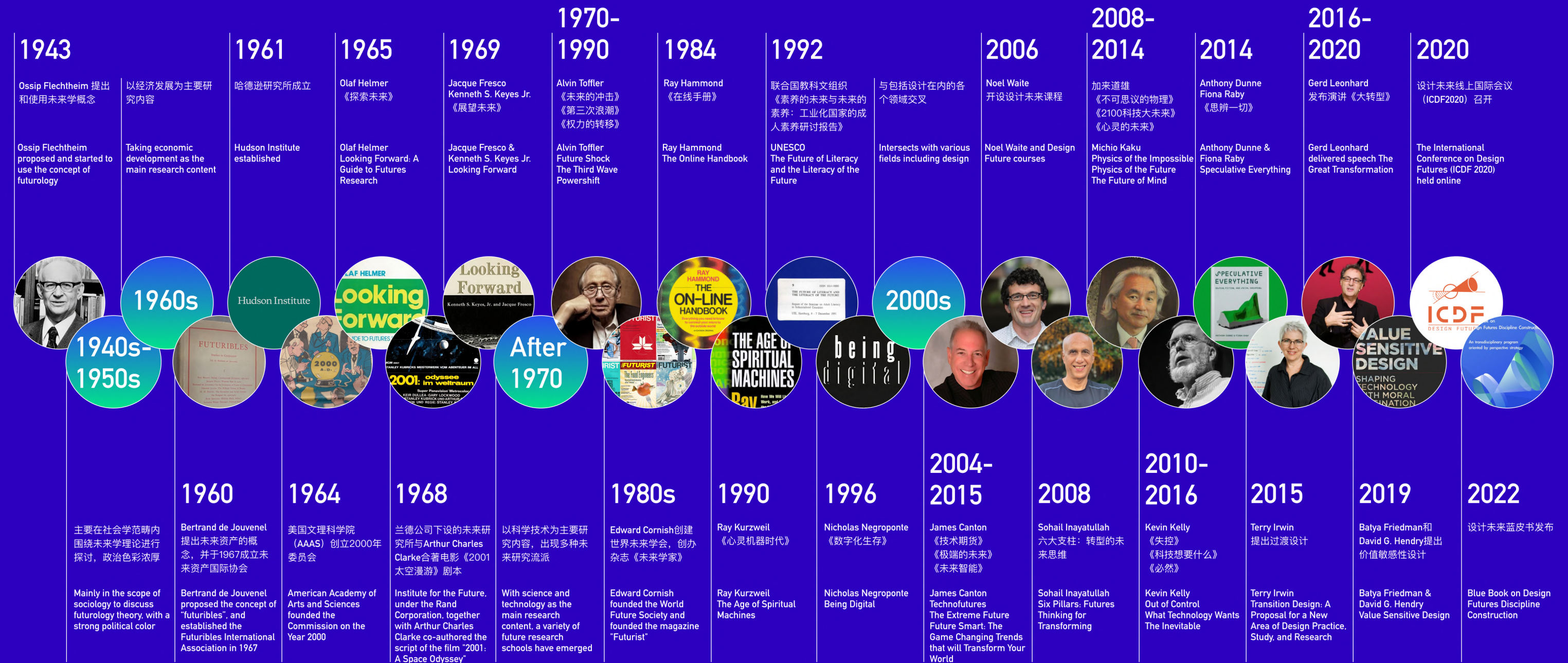
“A **FUTURIST** helps clients expand their typically narrower focus on the future to a **broader range of possibilities**. They forecast the future, not just to know the future as an abstract description, but rather to **prepare for it as a concrete reality**. The objective is not just to know what will happen, but to be ready for whatever does happen…Thus, preparing for the full range of plausible futures is the objective of foresight.”

Foresight Program | University of Houston , College of Technology



Design Futures Chronology

设计未来纪事



Definition of “Design Futures”

设计未来定义

Design thinking × Futures thinking = **DEXIGN**

Dexign is defined as an experimental type of design that integrates ‘Futures Thinking’ with ‘Design Thinking.’”

Arnold Wasserman

“Design futures shares **design fiction’s aim** to engage a broader population in reflecting on the implications of technology and human behavior.”

Linehan, Conor, and Ben J. Kirman, and Stuart Reeves, et al.

“Design futures has emerged as the point of **confluence where a multitude of tributary rivers meet** (such as transition design, speculative design, design fiction, or experiential futures) and concerns itself with inquiring into pluralistic and preferable futures, as well as creating the space to **interrogate the root causes of the current hegemonic futures.**”

Corina Angheloiu, Leila Sheldrick, Mike Tennant

“Design Futures is a **new discipline, tool, and medium** does not deal with the future of design but with the role of design in shaping future alternatives.”

Andrea Paraboschi and Pierluigi Dalla Rosa

Definition of “Design Futures”

设计未来定义

“**Design Futures** course focuses on learning design methods to **align near term design action with longer time horizons** aimed at sustainable futures. Design is defined as an experimental type of design that integrates ‘Futures Thinking’ with ‘Design Thinking.’”

“设计未来”着眼于探索短期与长期未来对当下社会的影响，通过未来思维引领产业变革与社会进化，以共创性模式、思辨性方法、反思性实践，为人类命运共同体设计更合意的未来。

Design Futures focuses on exploring the impact of short-term and long-term futures on the current society, leading industrial transformation and social evolution through **futures thinking**, and designing a more **desirable futures** for “a community with a shared future” utilizing co-creative models, speculative methods, and reflective practices.

“Design Futures is a new discipline, tool, and medium does not deal with the future of design but with the role of design in shaping future alternatives.”

Andrea Paraboschi and Pierluigi Dalla Rosa

2 设计未来学科概况 Overview of the Design Futures Program

设计未来学科是如何发展的？

**How does Design
Futures become?**

Transformation of design thinking

设计4.0的思维转型

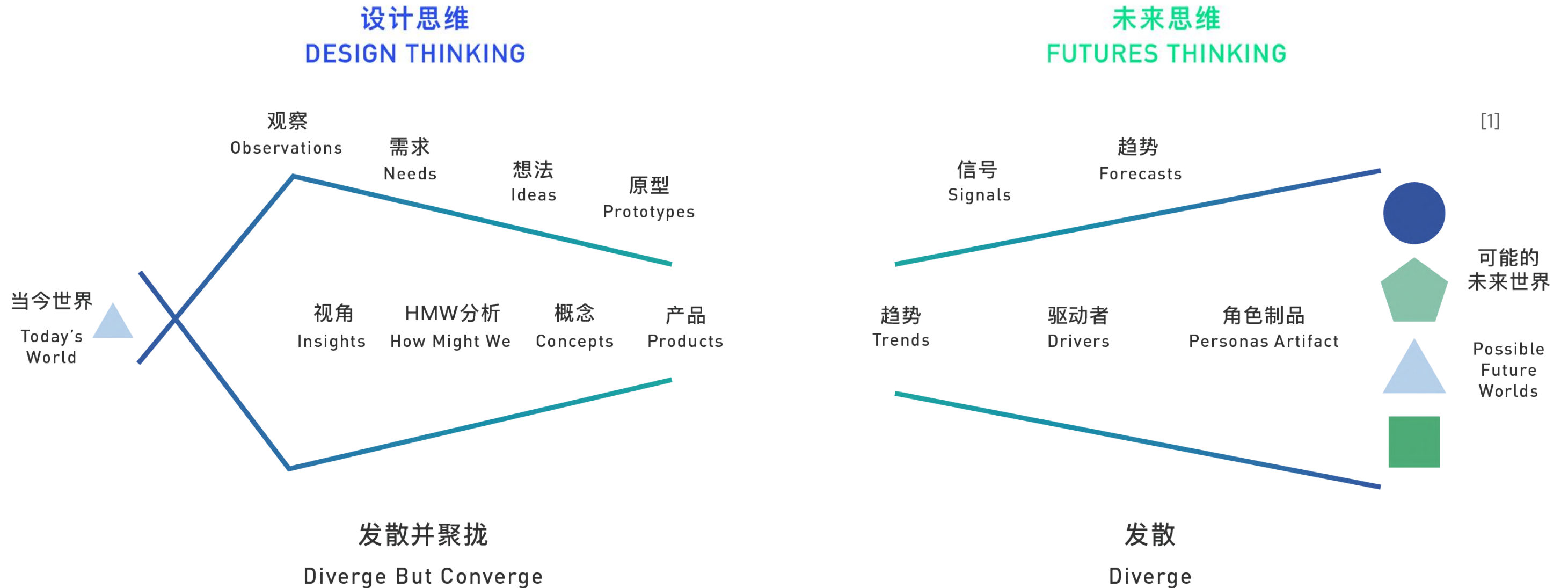
[1]



[1] Elizabeth Pastor , The OTHER Design Thinking , Design Thinkers 2013 Conference in Toronto.

Design thinking and futures thinking

设计思维与未来思维



“设计思维”从真实世界的问题出发，经历广泛观察、深入洞察、发掘需求、聚焦定义、创意发散、概念形成、原型推敲到**最终产品化**。

"Design thinking" starts from **real-world problems**, and undergoes extensive observation, in-depth insight, the discovery of needs, focused definition, creative divergence, concept formation, prototype deliberation, and **final productization**.

“未来思维”从趋势出发，发掘多样的未来信号并聚焦驱动因素，充分预想，形成人物与人工物，从而呈现出**可能的未来多元世界**。

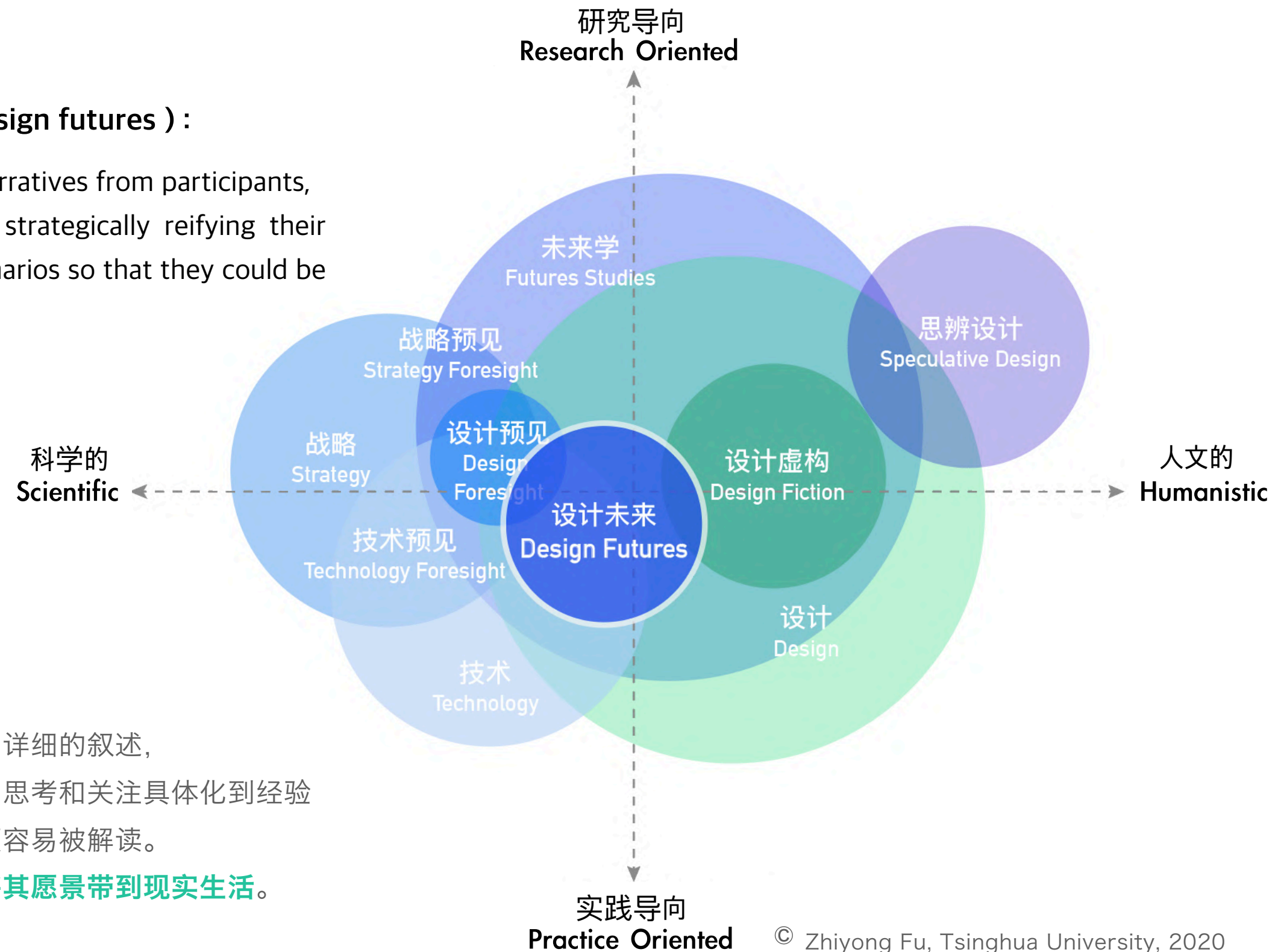
"Futures Thinking" starts from **trends**, discovers diverse future signals and focuses on driving factors, fully anticipates, forms personas and artifacts, and presents a **possible future diversified world**.

The role of Design Futures

设计未来的角色

The designer served a dual role (in design futures) :

As a **futures** researcher eliciting detailed narratives from participants, and as a kind of **translator or medium**, strategically reifying their thinking and concerns into experiential scenarios so that they could be seen, felt, and talked about more readily [1].



设计未来视角下设计师的双重角色：

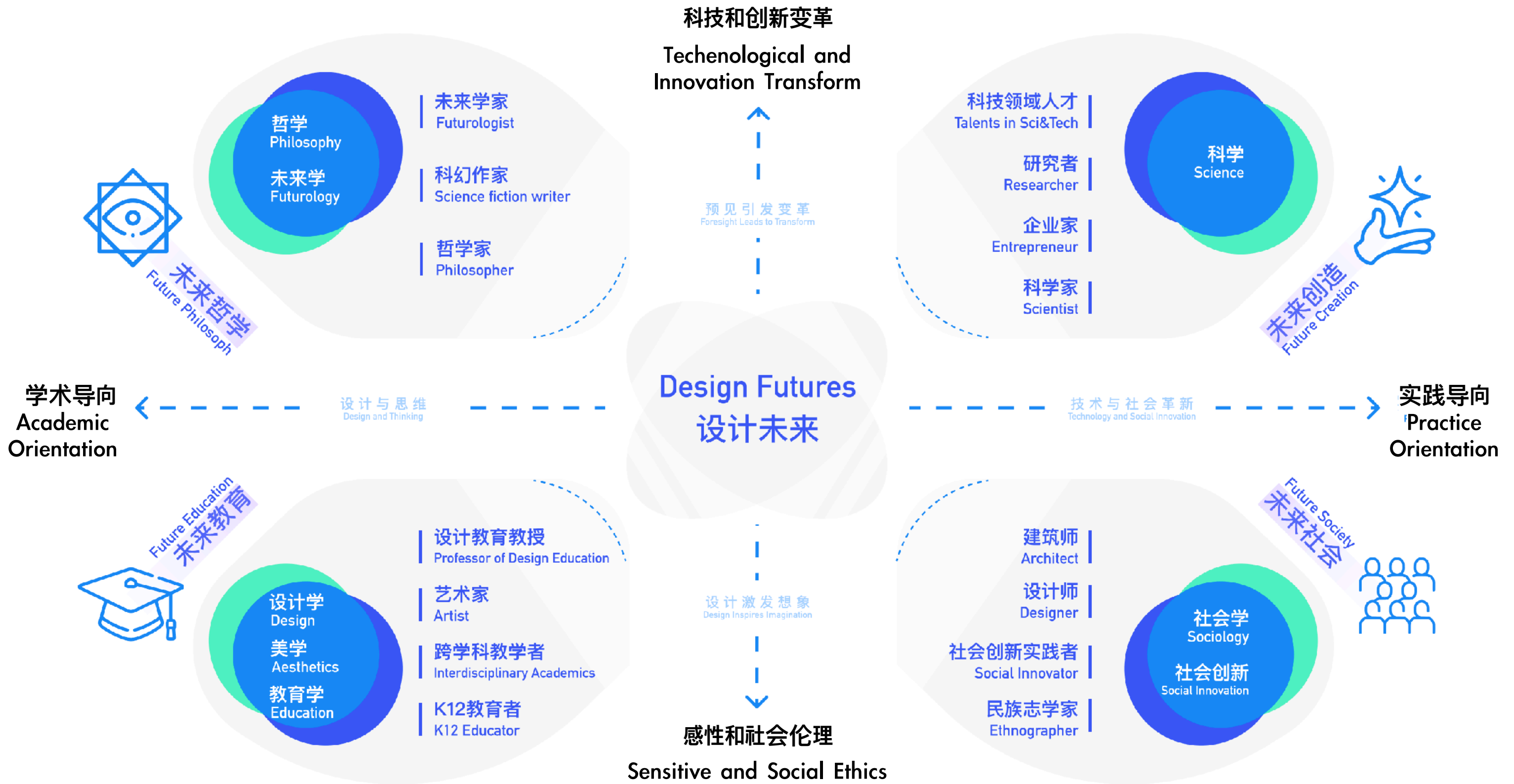
首先作为一名**未来研究者**需要从参与者引出详细的叙述，其次，作为**翻译或中介**，战略性地将他们的思考和关注具体化到经验场景中，让那些场景被看到、感受到、并更容易被解读。第一个阶段将**未来描绘出来**，第二个阶段**将其愿景带到现实生活**。

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[1] Stuart Candy, Kelly Kornet., Turning Foresight Inside Out: An Introduction to Ethnographic Experiential Futures, Journal of Futures Studies, March 2019, 23(3): 3-22

Application of Design Futures

设计未来的应用领域



3 设计未来学科调研 Survey for Design Futures Program

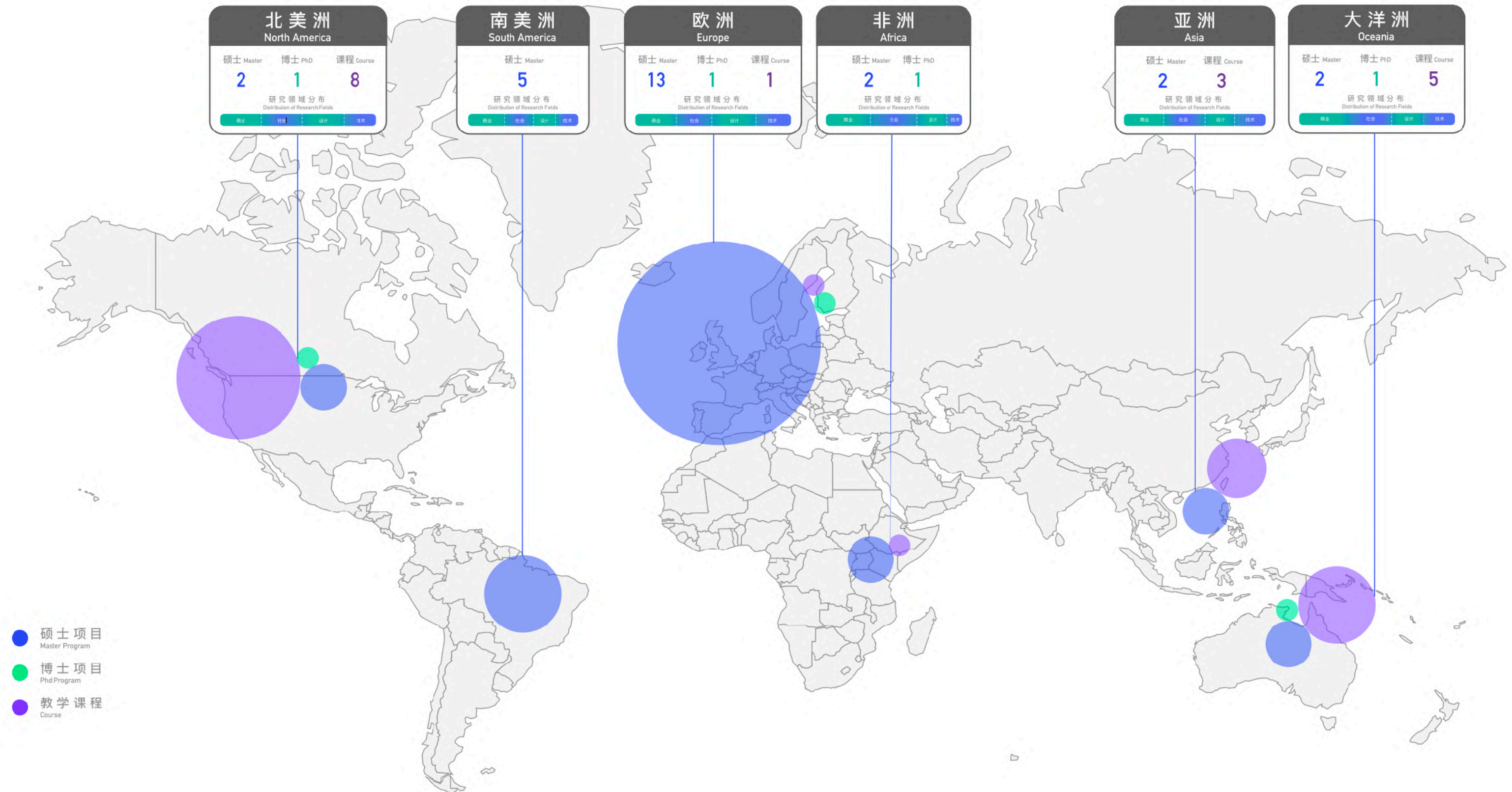
设计未来学科是如何建设的？

What is Design

Futures doing now?

Global Distribution of Design Futures Program

设计未来教育地区分布



47 项目/课程
Programs/Courses

38 研究机构及院校
Institutes/universities



POLITECNICO
MILANO 1863

Design.

Stanford | Foresight



院校 Institute	课程 Program/Course
University of Turku	Master's Degree Programme in Futures Studies
Aalto University	Design Futures 2021
The new school Parsons	Futures Studies and Speculative Design
University of Houston	Master of Science in Foresight
Royal College of Art	MA Design Products Design Futures Pathway
Iqra University	Institute of Futures Studies
Stanford University	Design Foresight
Carnegie Mellon	Dexign Futures
Politecnico di Milano	Lab_i_r_int
The HongKong Polytechnic University	Design Strategies
The Oslo School of Architecture and Design	Systems Oriented Design
Tsinghua University Academy of Arts & Design	Dexign Futures (Introduction)



清华大学美术学院
ACADEMY OF ARTS AND DESIGN, TSINGHUA UNIVERSITY

清华大学美术学院 Tsinghua University

美术学院 > 信息艺术设计系 > 交互设计

Academy of Arts&Design > Department of Information Art
& Design > Introduction to Design Futures

交互设计课程立足于**科技、社会、人文与设计**的交叉领域，聚焦互联网发展中人与科技、人与自然的关系，从理解人的行为和文化情境出发，通过对人与人、人与产品及环境之间沟通与交流方式的设计，创造出新的生活、工作、学习与娱乐体验。

以《交互设计(1)》为例，课程围绕“**未来福祉**”主题探索生存在元宇宙的可能，结合开源的技术平台和未来设计工具开展应用于虚拟空间中交互设计探索，思考研究虚拟与现实产生联系的方式，以呈现**数字化福祉**的未来愿景。



The **Interaction Design** course, based on the **Cross of Science and Technology, Society, Humanities, and Design**, focuses on the relationship between humans and technology, along with nature, in the development of the Internet. Starting from an understanding of behavior and cultural context, it creates new living, work, study, and entertainment experiences through the design of communication and communication between people, people, and products and environment.

Interaction Design (1) theme of "**future well-being**," the course explores the possibility of living in the meta-universe, combining open source technology platforms and Design Futures tools to explore the way of connecting virtual and natural, to present the future vision of **digital well-being**.

6 Weeks course

Interaction Design (1)-Future Well-being

Objectives

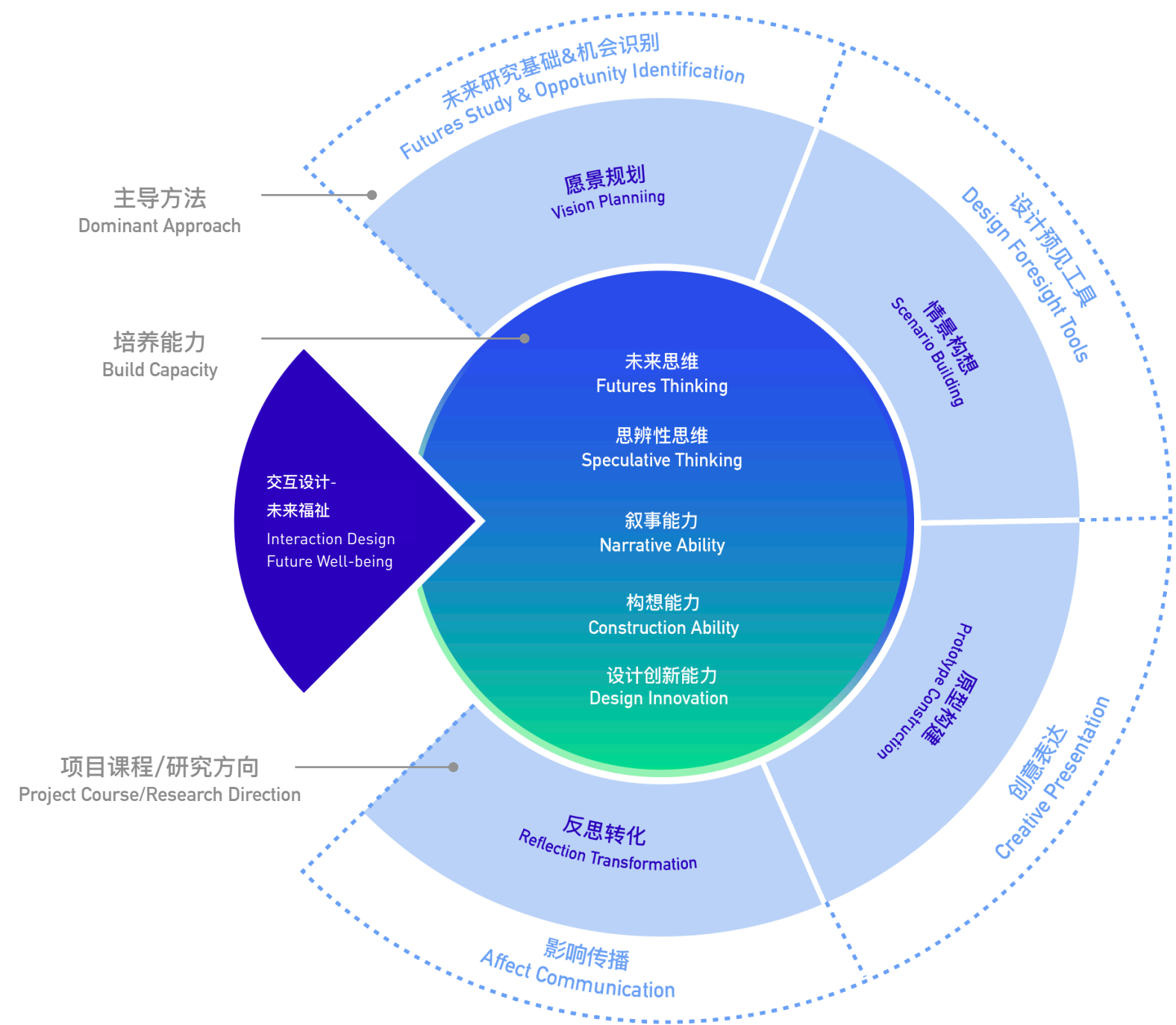
1. Understand the **new identity and role** of designers in a **rapidly changing world**.
2. Utilizing Futures methods and design tools for vision planning to prototype realization;
3. Building future signs by collecting future signals and analyzing current problems;
4. Guide students to be "reflective practitioners" in the design process;
5. Scenarios construction and building world views combined design fiction to implement prototypes for an alternative future from a narrative perspective.

学习目标

1. 了解设计师在**瞬息万变世界**中的**新身份及新角色**;
2. 学习将愿景规划到原型实现的未来学方法与设计工具;
3. 通过未来信号的收集和当下问题的分析构建未来迹象;
4. 引导学生担任设计中的“反思实践者”;
5. 构建情景和世界观的建立,并结合设计虚构原型呈现,以叙事的角度产生出多样化的未来。

Construction of crriculums

交互设计-未来福祉 Interaction Design -Future Well-being 课程题目、主导方法和培养能力分析





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ACADEMY OF ARTS AND DESIGN, TSINGHUA UNIVERSITY

清华大学美术学院 Tsinghua University

美术学院 > 信息艺术设计系 > 设计未来导论

Academy of Arts&Design > Department of Information Art
& Design > Introduction to Dexign Futures

《设计未来导论》（Introduction to Dexign Futures）由清华大学美术学院信息艺术设计系付志勇副教授进行主讲，与美国卡内基梅隆大学彼得·斯库佩利（Peter Scupelli）副教授合作，以其开设的翻转课程《设计未来》（Dexign Futues）为英文蓝本。

课程旨在通过设计思维和未来学相结合的思路为基础，与人类学社会学研究相结合，以多学科融合的方式，引导参与其中的年轻设计师一同畅想可持续的未来。在本课程中，学生将探索推动未来变革的力量（即社会、经济、政治、环境、技术），将创新与这些力量的长期发展轨迹战略性地保持一致，学习并掌握未来学相关的设计理论、方法和工具，以应对充满不确定性的未来。通过理论和实践相结合，共同描绘未来的多种可能性，通过设计的手段针对“未来”发出挑战，如可持续生产和消费、终身学习、人类发展和社区复原力等。



Introduction to Dexign Futures is delivered by Fu Zhiyong, Associate Professor, Department of Information Art Design, School of Fine Arts, Tsinghua University, in collaboration with Peter Scupelli, Associate Professor, Carnegie Mellon University. It is based on Dexign Futues, a flipped course.

Based on the combination of design thinking and futurology, and combined with anthropological and sociological studies, it aims to guide young designers to imagine a **sustainable future** together in a multidisciplinary way. In this course, students will explore the forces that will drive future change (**i.e., social, economic, political, environmental, technological**), align innovation strategically with the long-term trajectories of these forces, and learn and master futurology related **design theories, methods, and tools** for dealing with an **uncertain future**. Through a combination of theory and practice, the multiple possibilities of the future are mapped together, and the challenges of the "future" are addressed through designed tools such as sustainable production and consumption, lifelong learning, human development and community resilience.

24 Weeks course

Introduction to Dexign Futures

1. Understand the **new identity and role** of designers in a **rapidly changing world**.
2. Learn the tools, skills, and resources you need to be **change-makers** for **positive change on our planet**.
3. Learn to expand design from the traditional thinking of **people-oriented** to the thinking and methodology of designing with **the future as the object**.
4. Learn how to **push the boundaries** of what designers are traditionally allowed to do.
5. Learn to critique **future visions** to identify and generate **new design opportunities and concepts**.
6. Learn to integrate design concepts with the transformative forces that will **shape future design Spaces**, and connect design concepts with **future signs**.
7. Learn how to find **multiple design opportunities** in **alternative future scenarios** and hierarchies of change.
8. Learn to map design projects to **short, medium, and long term time horizons**.
9. Learn to **harness uncertainty** to accelerate **innovation** to achieve the desired future.

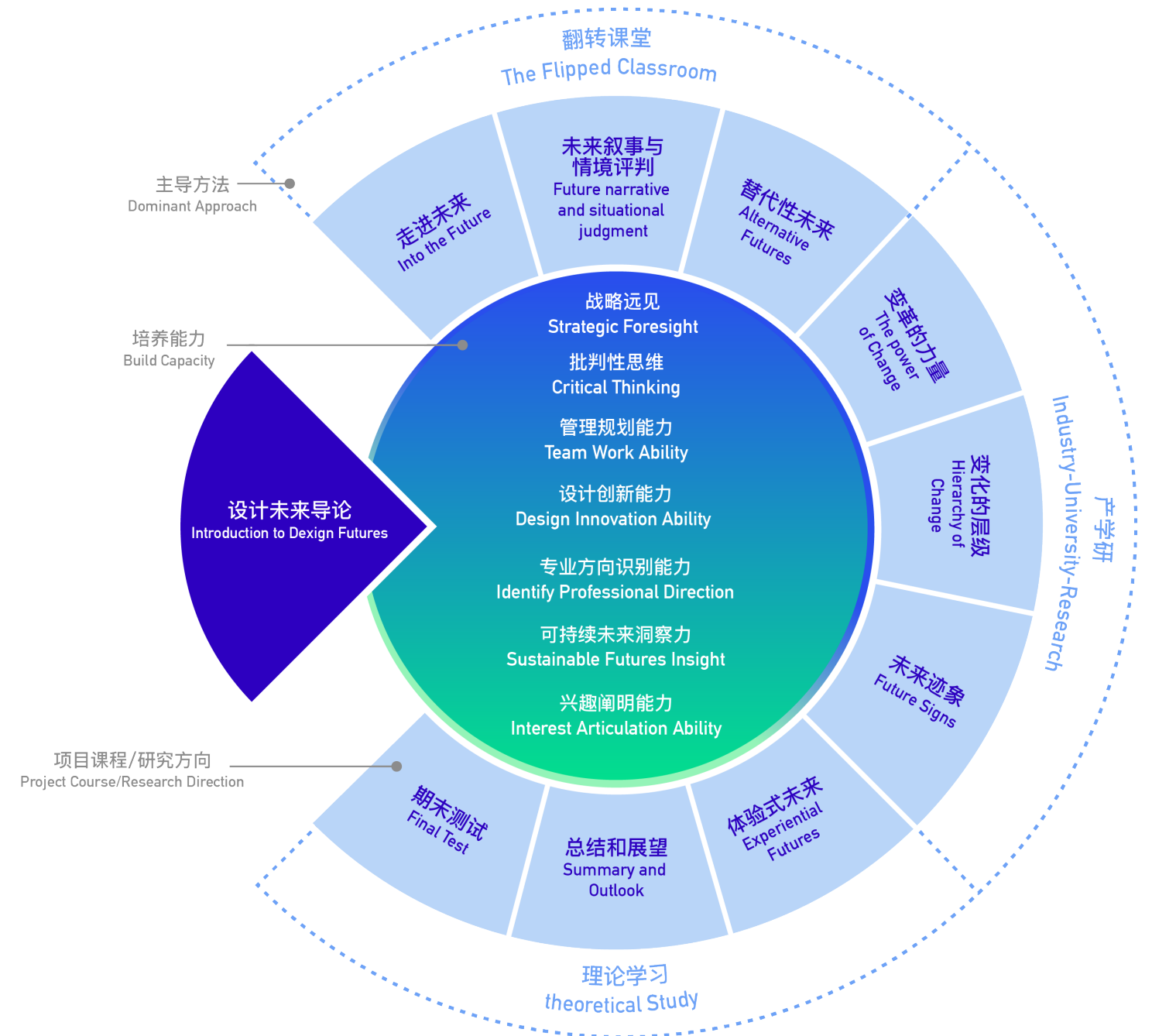
学习目标

1. 了解设计师在**瞬息万变世界**中的**新身份及新角色**；
2. 学习成为**推动地球积极变化**的**变革者**所需的工具、技能和资源；
3. 学习将设计从**以人为本**的传统思维扩展到对**以未来为对象**进行设计的思维及方法论；
4. 学习如何**突破**传统意义上设计师可以做的事情的**界限**；
5. 学习批判**未来愿景**以识别和产生**新的设计机会和概念**；
6. 学习将设计概念与**构建未来设计空间**的变革力量相结合，并将设计概念与**未来迹象**联系起来；
7. 学习如何在**替代性未来的情景和变化**的层级中寻找多种**设计机会**；
8. 学习将设计项目映射到**短期、中期和长期**的时间范围；
9. 学习通过对**不确定性的驾驭**来加速**创新**以实现理想的未来

Construction of crriculums

设计未来导向 Introduction to Dexign Futures

课程题目、主导方法和培养能力分析



Design.

卡耐基梅隆大学 School of Design at Carnegie Mellon

设计学院 > 设计未来

School of Design > Ddesign Futures

设计未来课程(Design Futures)是为大三学生开设的一门必修课，源于一门名为“Design the Future”的课程，2013年由时任尼伦伯格客座教授的Arnold Wasserman 创立。该课程由Wasserman和Peter Scupelli教授现场通过远程呈现共同授课。

Design Futures采用翻转课堂教学法，让学生灵活参与在线课程。该课程目的是为了帮助学生在设计活动中具备长期战略眼光，从而为实现全球化和社会的可持续未来探索过渡设计框架。



Design Futures is a required class for all third-year design students in the School of Design at Carnegie Mellon University. The course is taught as a **flipped class**: online work prepares students for in-class activities.

The Previous **Design the Future** course taught fall 2013 by Arnold Wasserman and Peter Scupelli.

The goal of this course is help students align their **design work strategically with long time horizons** necessary to explore a **transition design framing** for planetary-scale societal-level sustainability ^[1].

[1] Scupelli, P., Wasserman, A., Brooks, J. (2016). Design Futures: A Pedagogy for Long-Horizon Design Scenarios. Proceedings of DRS 2016, Design Research Society 50th Anniversary Conference., 27-30 June 2016.

7 Weeks course

Design Futures

Objectives

1. Broaden perspective from Human-Centered to **Futures Centered** (design in time, planet centered)
2. **Critique futures visions** to generate new design opportunities and concepts
3. Align design concepts to **forces of change and futures signs**
4. Analyze multiple design opportunities in **alternative futures and layers of change**
5. Map design opportunities to **three time horizons** (short-term, mid-term, and long-term time)

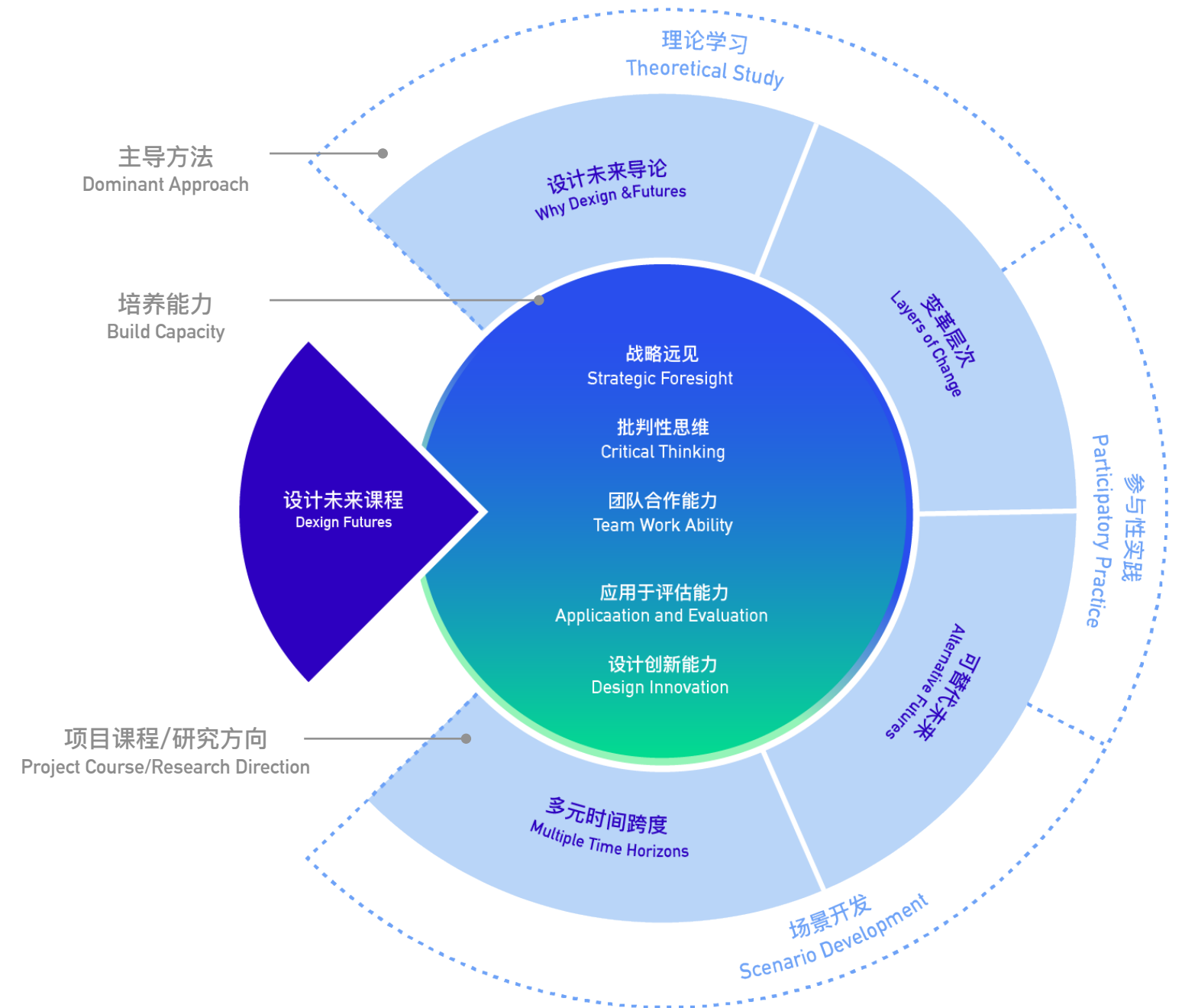
学习目标

1. 扩展以人为本的设计视角到 **“以未来为中心，以地球为中心”**
2. 建立**批判性的未来愿景**以促成新的设计机会和概念；
3. 设计概念与**变革力和未来信号**保持一致；
4. 在**多变未来和多层次变化**中分析设计机遇可能性；
5. 将设计机遇映射到**三个时间维度**(短期、中期和长期)

Construction of curriculum

设计未来Design Futures

课程题目、主导方法和培养能力分析





POLITECNICO
MILANO 1863

米兰理工大学 Politecnico di Milano

设计学院 > 室内与空间设计 > 理学硕士学位
School of Design > Interior and Spatial Design >
Master of Science degree

室内与空间设计理学硕士学位旨在培养高技能的专业人员，他们能够批判性地处理新的室内空间、城市室内设计和临时场所，并对新技术特别感兴趣，除了传统的室内设计主题，还包括与景观、城市设计、表演和艺术和视觉技术相关的更广泛的主题。

该课程以英文授课，以不同的教学活动为特色，从单一学科课程，到设计工作室和工作坊，有公司、机构、访问教授和设计工作室参与。



The MSc Degree in Interior and Spatial Design aims at training highly skilled professionals, who are able to critically deal with **new interior spaces, design of urban interiors and ephemeral places**, with particular interest in new technologies, including, in addition to the traditional interior design themes, broader themes related to **Landscape, Urban Design, Performance and Art and Visual Technologies**.

The programme is characterised by different teaching activities, ranging from single-discipline courses, to design studios and workshops, with the involvement of companies, institutions, visiting professors and design studios.

2 Years Programme

Interior and Spatial Design Objectives

1ST YEAR

Atelier for technologies, Design Studio 1 and 2 (New Interiors or Temporary Ephemeral or Landscape and interior/spatial Design), Interdisciplinary workshop, Museology in contemporary age, Cultura italiana or International Perspective, Lightining Design, Final Symposium.

2ND YEAR

Contemporary Interiors, Internship, Contest Design Studio or Exchange Design Studio, Elective Courses, Thesis development.

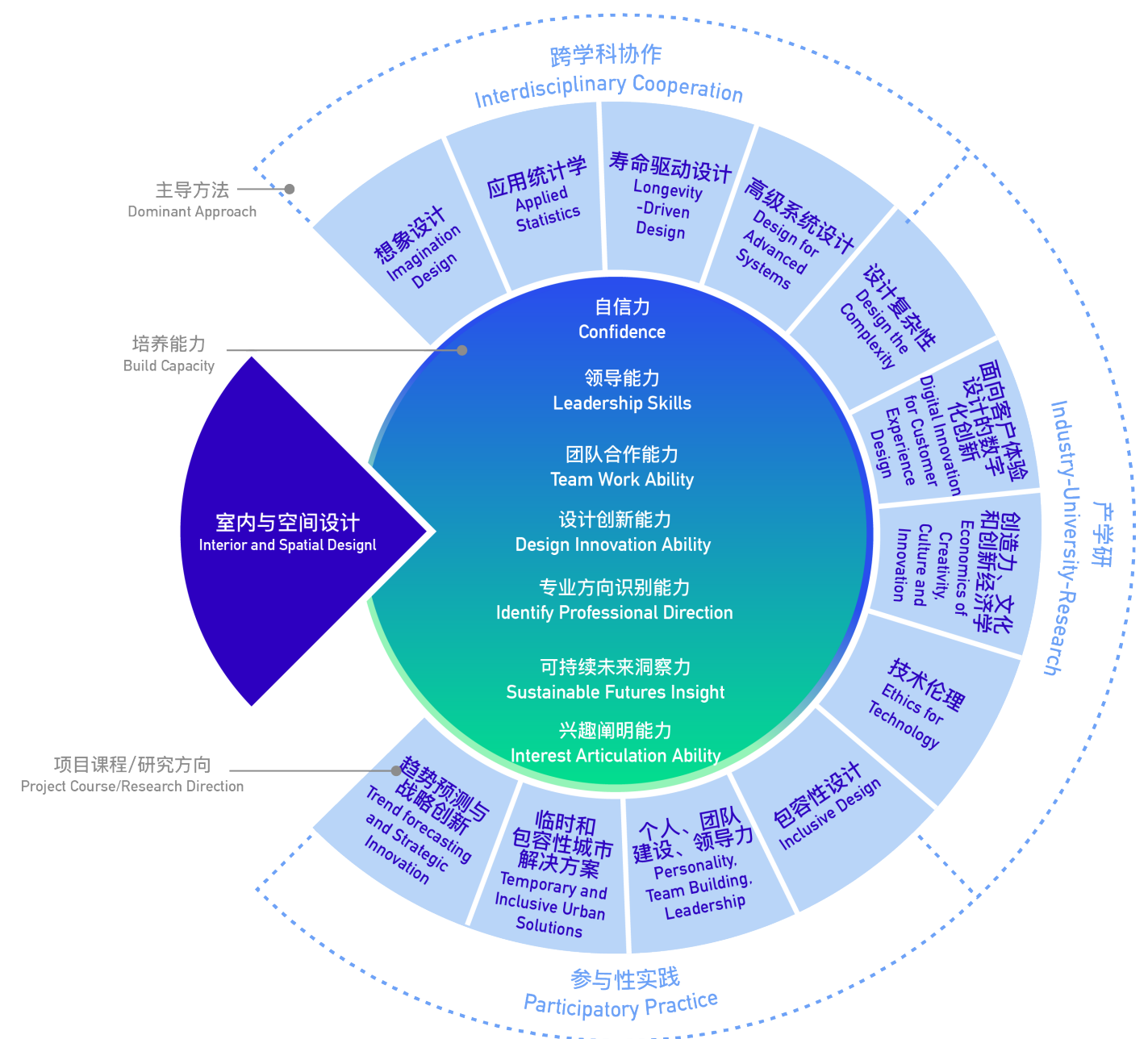
学习目标

- 第1年:** 技术工作室, 设计工作室1和2 (新室内或临时景观和室内/空间设计), 跨学科研讨会, 当代博物馆学, 意大利文化或国际透视, 照明设计, 最终研讨会。
- 第2年:** 当代室内设计, 实习, 竞赛设计工作室或交流设计工作室, 选修课, 论文开发。

Construction of crriculums

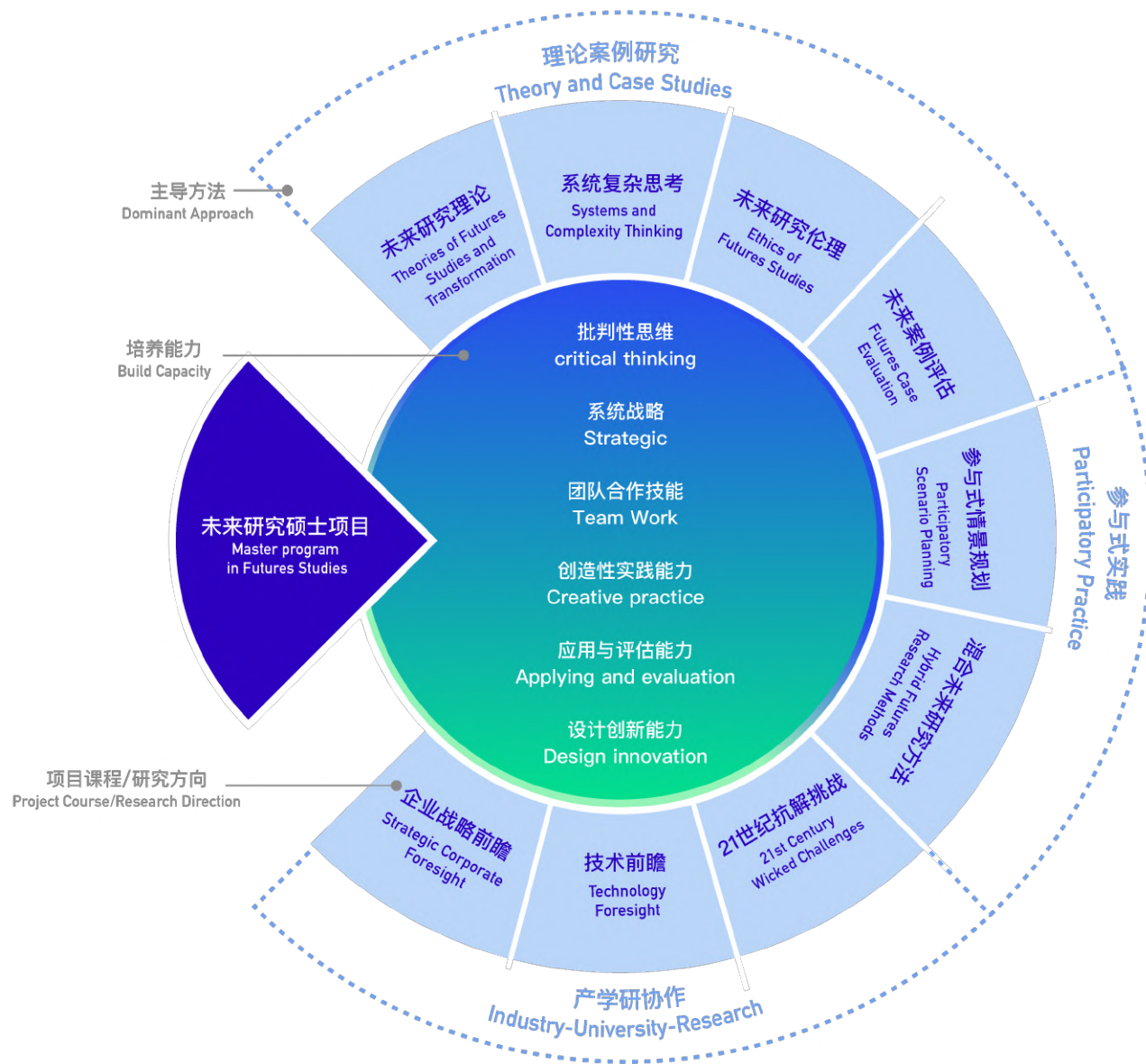
室内与空间设计 Interior and Spatial Design

课程题目、主导方法和培养能力分析



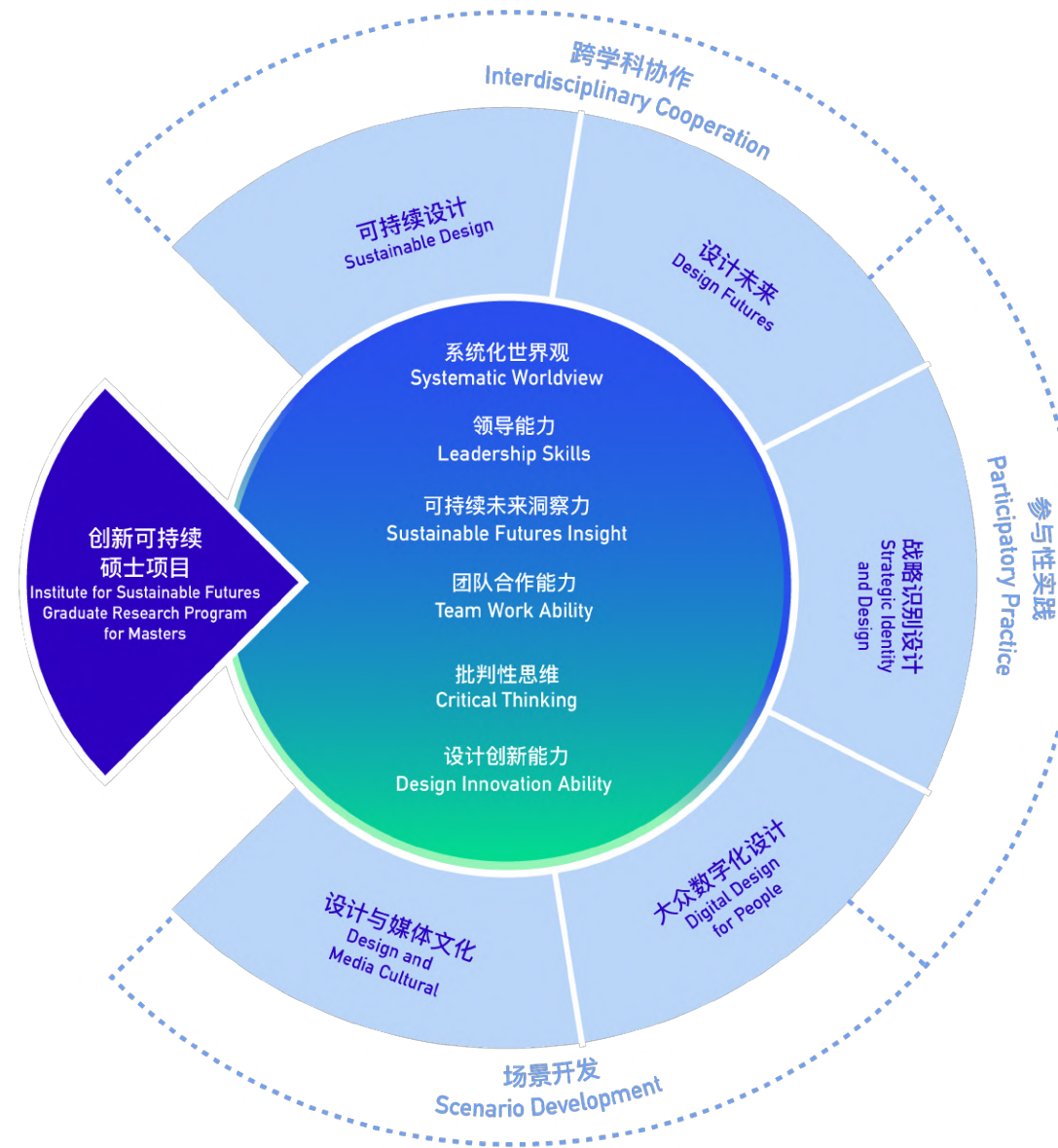
Construction of curriculum 课程设置

悉尼科技大学可持续未来研究所
可持续未来研究项目



University of Technology Sydney
Institute for Sustainable Futures
Graduate Research Program

阿尔托大学设计学院
创新可持续硕士项目

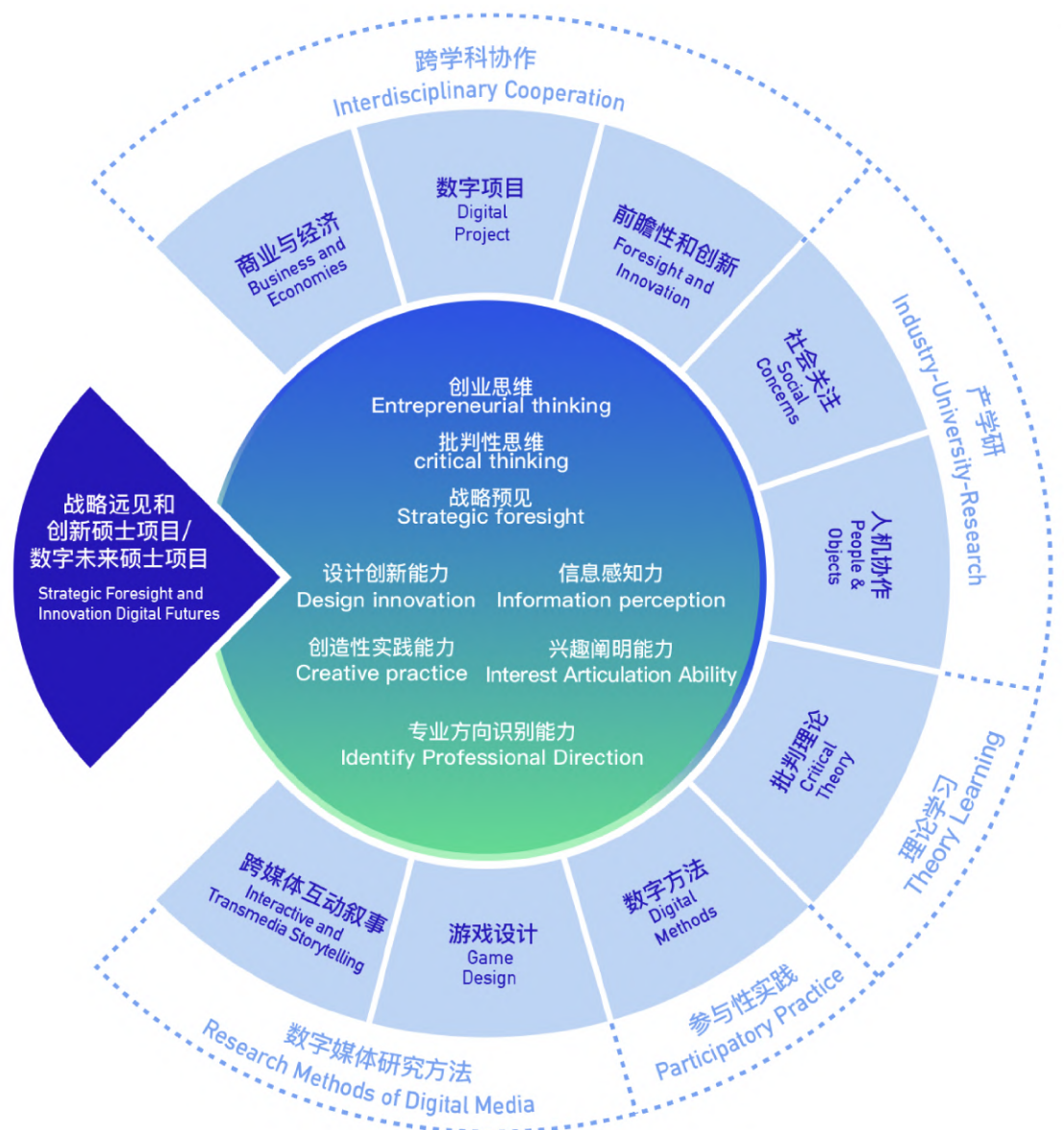


Aalto University
Master of Arts
Creative Sustainability

Construction of crriculums

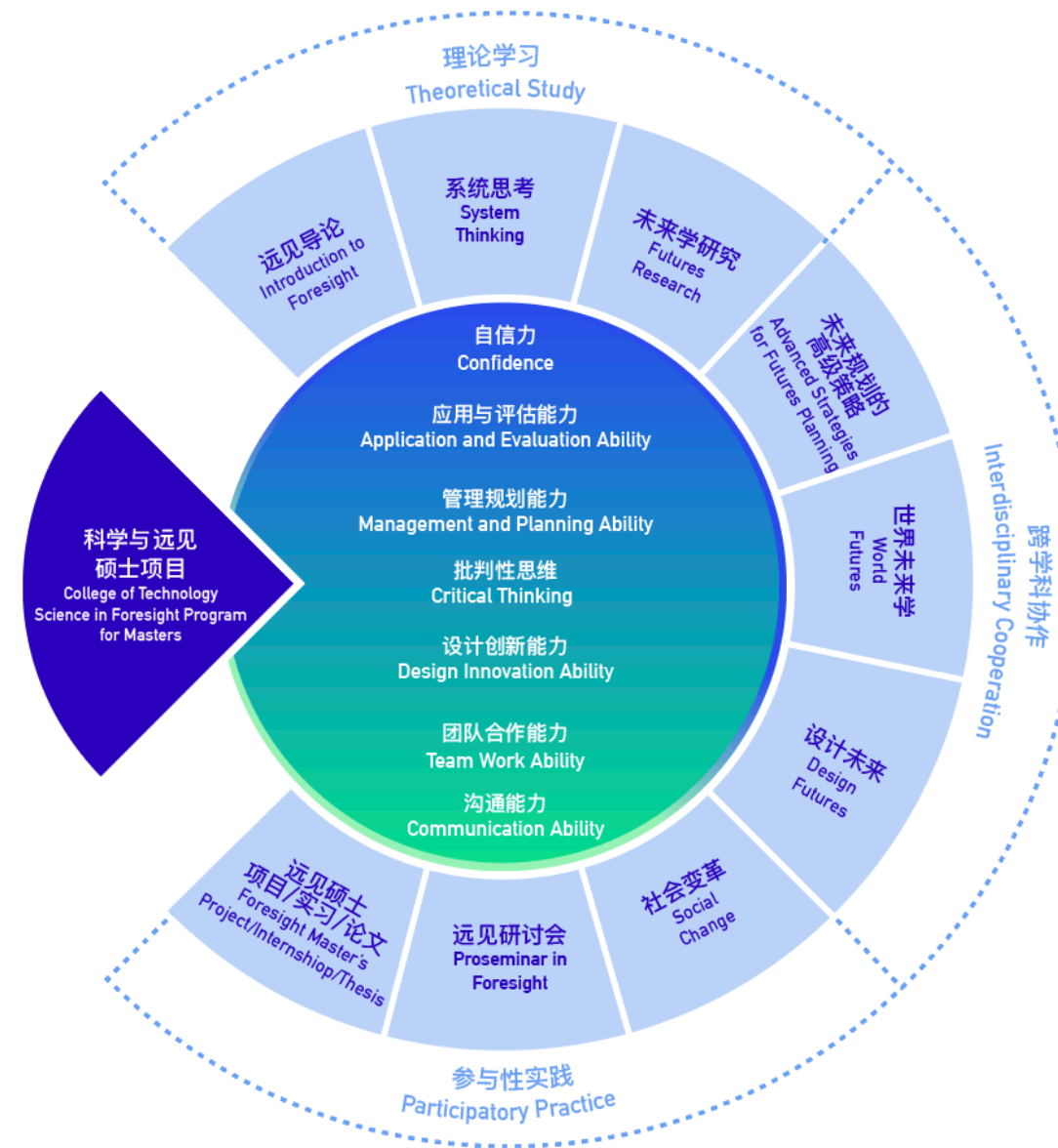
课程设置

安大略安大略艺术设计学院
战略远见创新/数字未来硕士项目



Ontario College of Art And Design
Strategic Foresight and Innovation
Digital Futures

休斯顿大学科技学院
科学与远见硕士项目



University of Huston
College of Technology
Master of Science in Foresight

Construction of crriculums

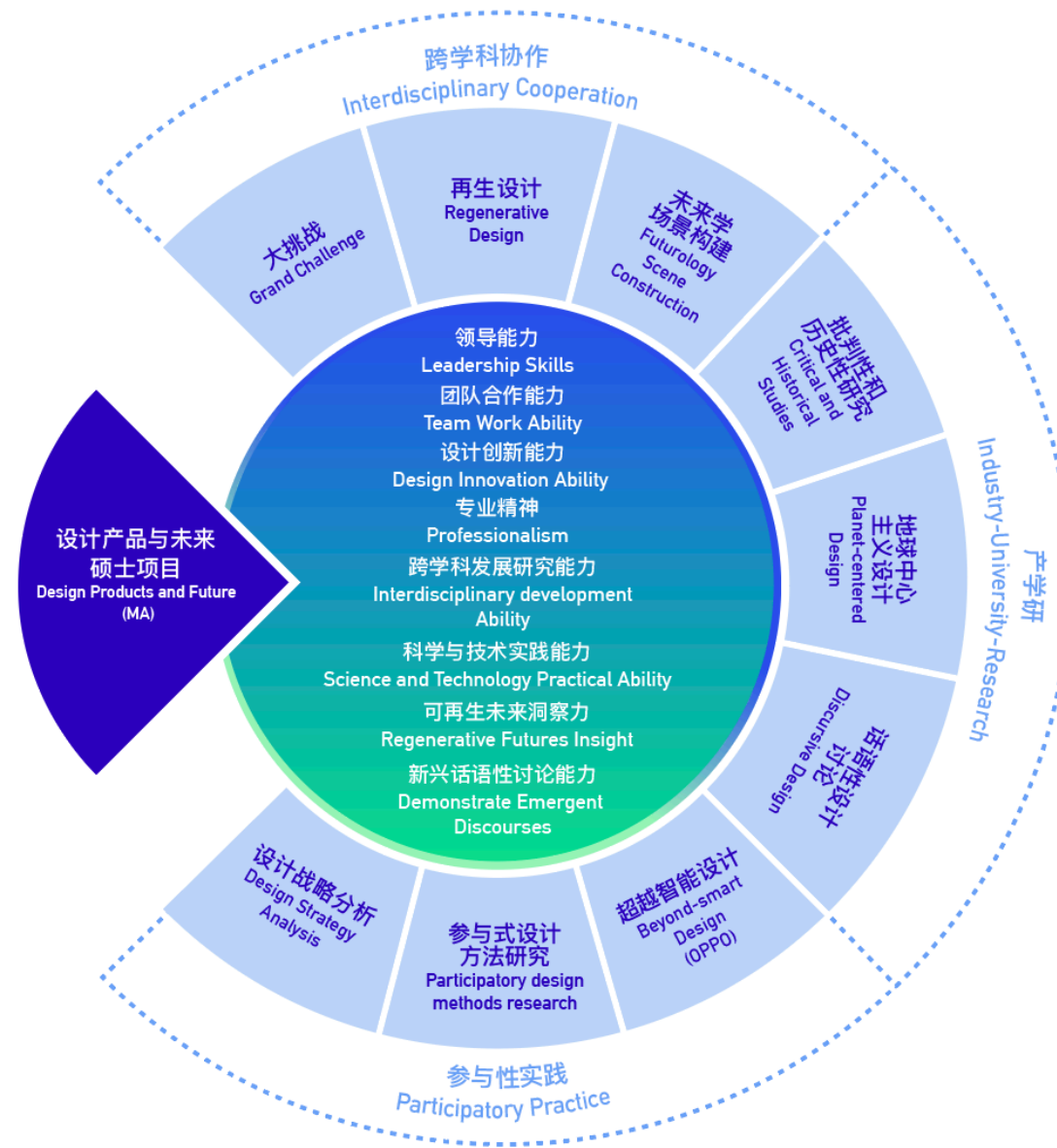
课程设置

斯坦福大学Media X 研究室
设计与远见研究项目/课程



Stanford Media X
Foresight Innovation Program/Course

英国皇家艺术学院
产品设计与未来硕士项目



Royal College of Art
Design Products and Future

Construction of crriculums

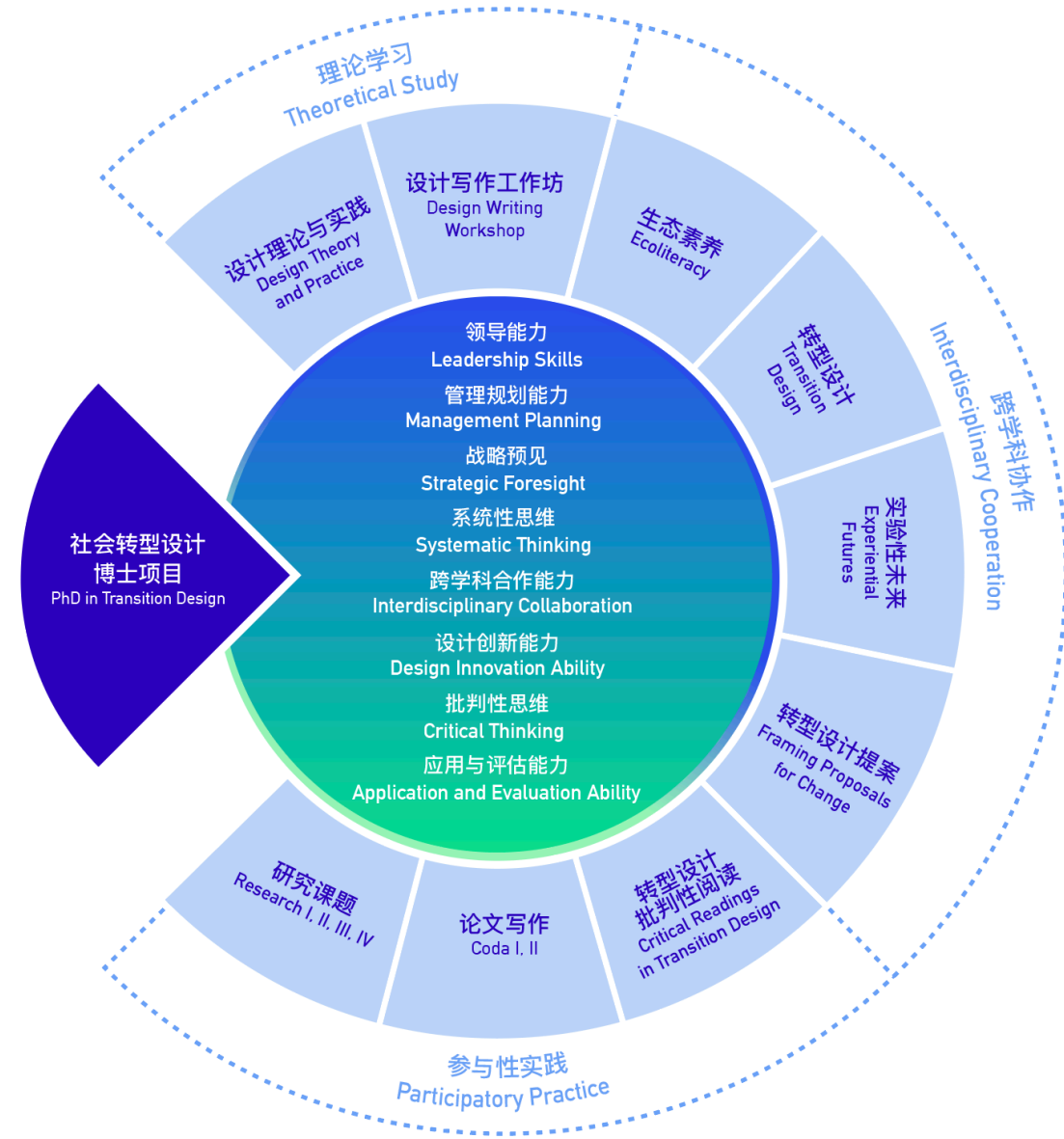
课程设置

图尔库大学
未来研究硕士项目



University of Turku
Master Program in Futures Studies

卡耐基梅隆大学
社会过渡设计博士项目



Carnegie Mellon University
Ph.D. in Transition Design

Research filed of Design Futures

设计未来的研究领域

设计未来研究领域的关键词频率词云

Frequency cloud of the keywords found in the research in Design Futures

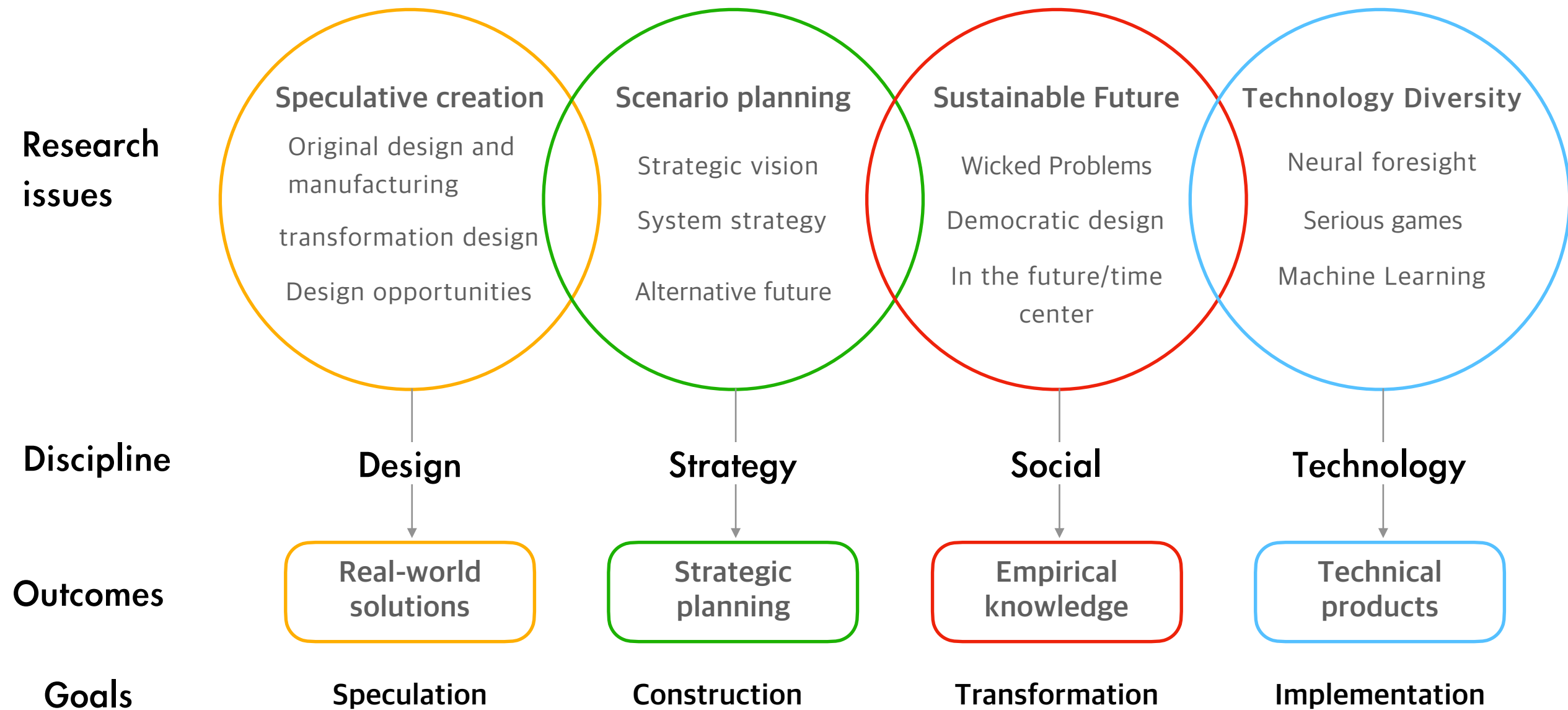


根据Web of Science 数据库的初步文献检索，设计未来与未来学参与的研究领域涉及**计算机科学、商业经济管理、心理学、教育、公共环境与职业健康、社会科学、建筑学、艺术学**等多个类别的研究领域。

According to a preliminary articles analyzed (Web of Science database) , the keywords that were most used in the research fields of Design Futures and Futurology involve **Computer Science, Business Economic Management, Psychology, Education, Public Environment and Occupational Health, Social Science, Architecture, Art** and other categories.

Categories of research topics

四类研究课题



根据现有课程的设置院系、研究问题和学科体系，总结出四类研究课题的教学成果和教育目标。可以发现，设计未来相关课程以**设计、战略、社会和科技**四大学科作为支撑，培养学生从**思辨思维到技术实现**的能力，并以多样的成果呈现未来图景。

Based on the existing courses, we summarized the teaching results and educational objectives of the four types of research topics. It can be found that Design Futures programs are concerned with the four major disciplines of **Design, Strategy, Social Science, and Technology**, which cultivate students' skills from critical thinking to implementation and present future scenarios with diverse outcomes.

Design Futures Educational Ladder

设计未来思维培养阶梯

Design Futures thinking education can be divided into four levels:

From basic thinking to higher thinking, it is the ability shaping of **cognition, skill, utility, and belief**.

The educational ladder indicated that learners could better practice futures thinking in a range of different contexts when they acquire the knowledge progressively.

This also illustrated how to integrate resources across disciplines and build skills and attitudes to cope with the future with a flexible and positive mental model.

进一步分析设计未来对思维的培养可以分为四个层次:

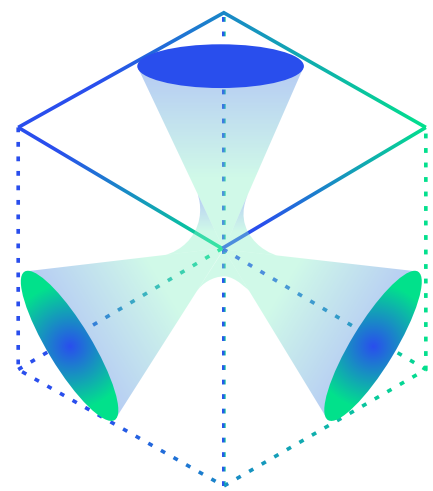
从基础到高阶思维，分别是对**认知、技能、效用和信念**的能力塑造。

培养阶梯解释了不同的知识维度和能力内涵，以指导跨学科的资源整合，正确树立学习者应对未来的技能和态度，逐渐形成应变的正向心智模型。



4 Highlights of Design Futures Program

设计未来课程特点总结

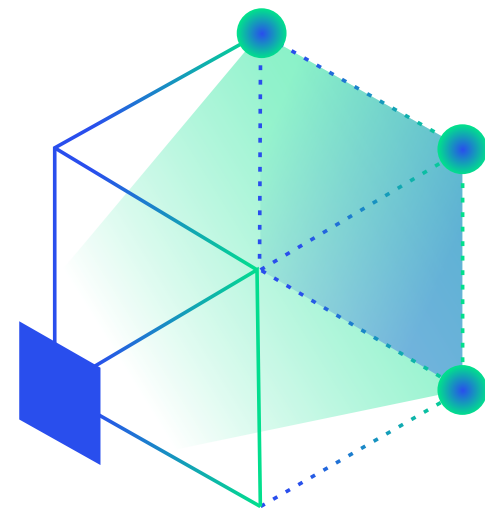


Knowledge
Barriers

知识边界

从封闭到融合

Isolated to Transdisciplinary

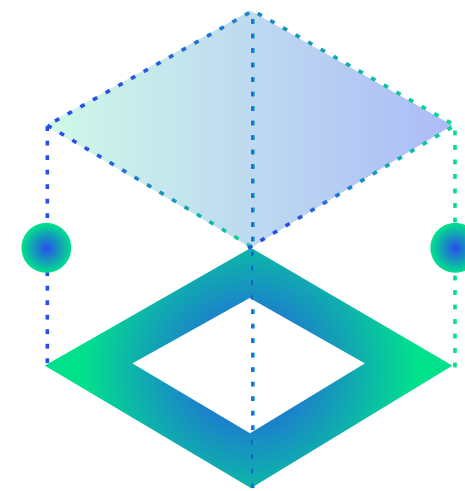


Capability
dimensions

能力维度

从技能到素养

Skills to Literacy

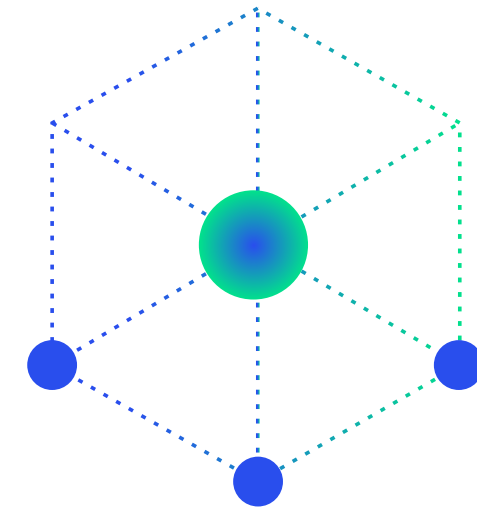


Utility
Implementation

效用实现

从策略到战略

Tactics to Strategy



Belief
Delivery

信念传递

从个体到群体

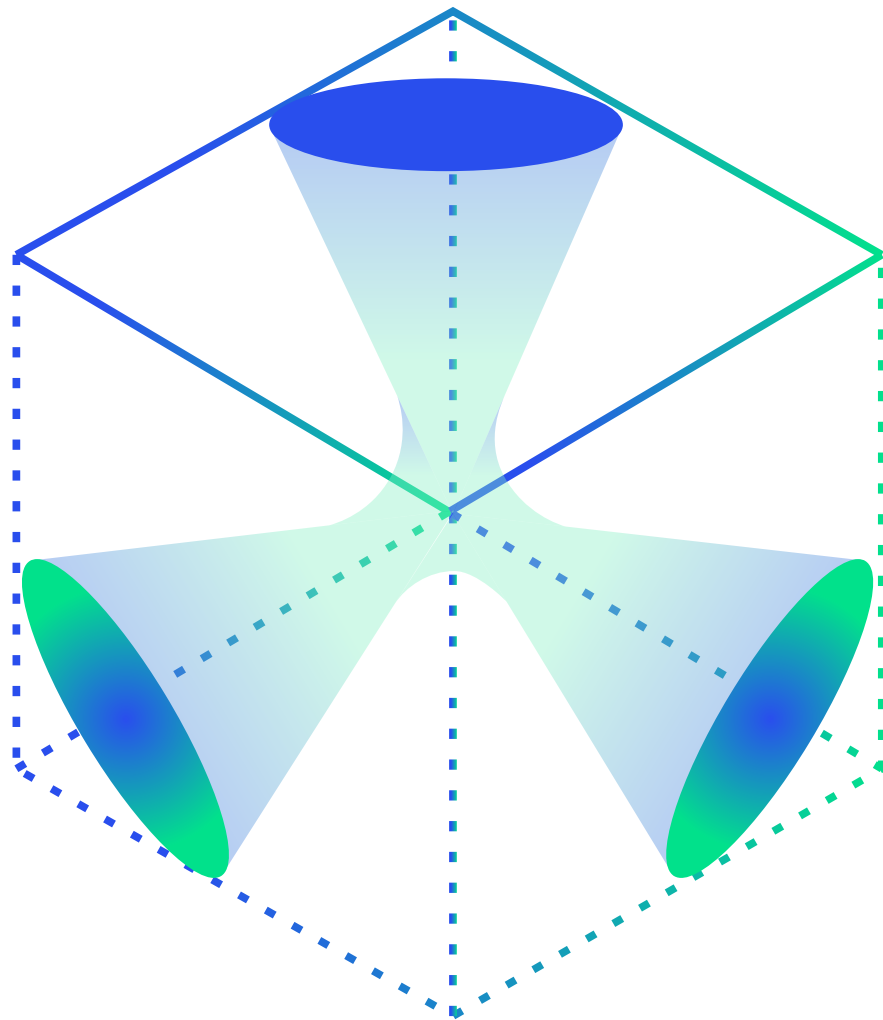
Individual to Community

通过调研代表性院校的设计未来及相关课程与研究性项目，可以归纳出四类不同的课程类型，在此基础深入分析其教学模式，总结出设计未来这一新兴交叉学科与传统设计学科相比的明显差异。

Based on the investigation of these representative educational patterns, the apparent differences between the emerging interdisciplinary discipline of Design Futures and the traditional design discipline are summarized.

1 知识边界

Knowledge Barriers



从封闭到融合

设计未来课程的目的之一是引导学生建立在未来思维、方法、技术和工具的应用方面的专业素养，以应对现代社会环境中的“抗解问题”。

因此这一新兴课程的知识体系需要打破目前的学科分区，以未来学和设计学理论的基础上，融合设计虚构、交互设计、民族志研究和未来预见。以数据驱动的方式洞察趋势，利用触点来创造可参与式的未来体验。

From isolated to transdisciplinary

One of the purposes of Design Futures Program is to guide students to be mastering in the utilizing of futures thinking, methods, techniques and tools in order to deal with the "wicked problems".

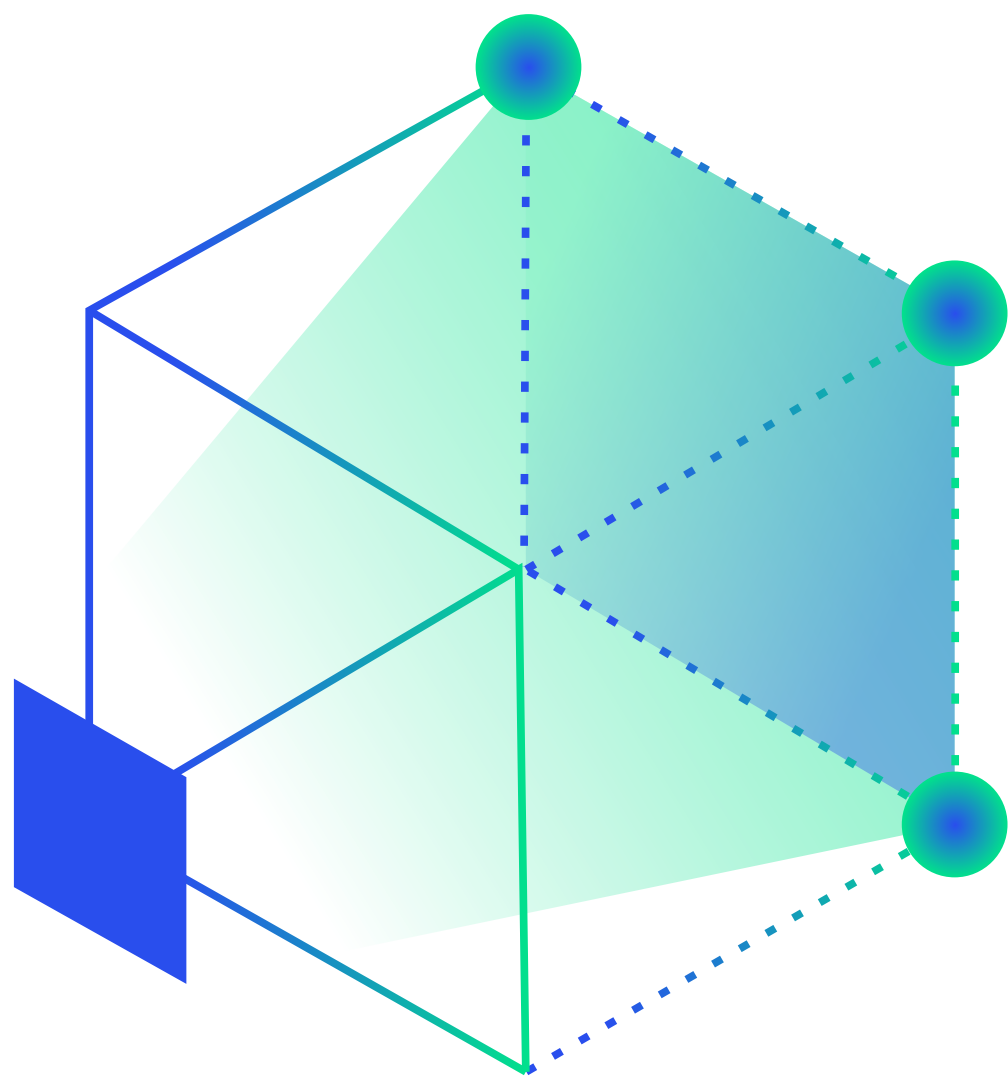
The construction of this emerging program should break the traditional discipline and enter the crossroads of design fiction, interaction design, ethnographic research and future prediction on the fundamental of futures and design theory.

“It aims at creating engaging future-projected experiences, with the goal of inspiring people, increasing their awareness on contemporary challenges and their willingness to act and to responsibly impact on the future.”

— Andrea Paraboschi and Pierluigi Dalla Rosa

2 能力维度

Capability Dimension



从技能到素养

设计未来的人才培养目标是以未来素养为核心的不断构建未来、转变未来的动力。

这就需要课程结构在寻求跨学科理论的基础上，更要实现在教育思想和发展理念上革新。以往设计师对新技术和媒介的运用是显性的技能，包括对设计流程和创意思维的熟练运用。未来的设计家、变革者需要具备共情能力和对未来世界场景的概念化叙述，以及对信号的洞察预见、决策等隐性的、内在的能力。

From Implicit to explicit

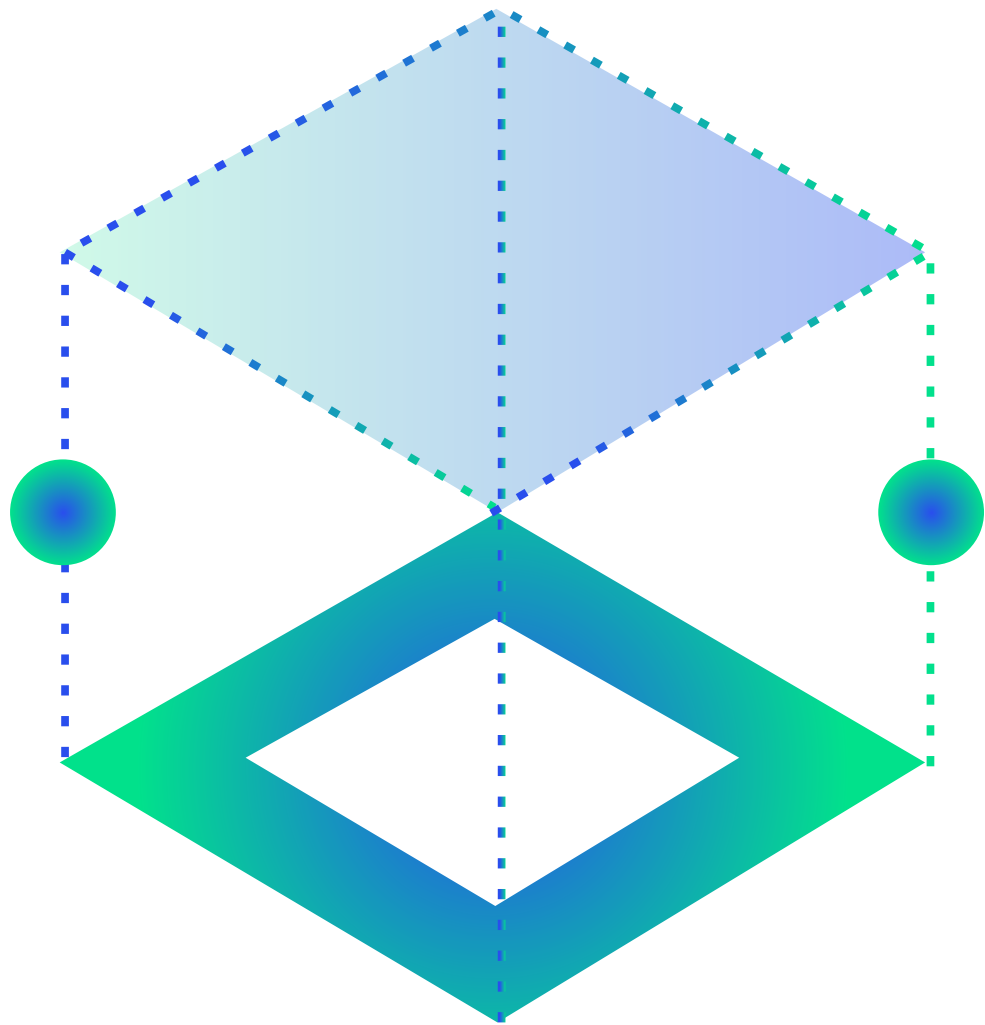
Design Futures' goal is to continuously build and transform the future that Future Literacy calls for.

The curriculum seeks interdisciplinary theory based on reforming pedagogy and developing conceptions. In the past, designers were capable of new technologies and media, which may be called “explicit skills,” including understanding design processes and creative thinking.

Future designers and changer-makers need to have the ability to empathize and conceptualize future world scenarios, as well as the implicit and intrinsic ability to perceive future signals and strategic decision-making.

3 效用实现

Utility Implementation



从策略到战略

这里“效用”用来借指未来思维参与的设计流程和方法对学习者在实际应用和产出层面的影响。相比于传统设计教育，设计未来课程在实现这种影响的途径上做出了从“策略”到“战略”的提升。

以往的教学中以训练设计思维为核心，产出多为是面向当下问题的产品、服务或体验的具体行动或解决方案，称之为“策略”。后者战略更倾向于长期计划，设计未来的目标便是启发性的预见框架，需要站在三个不同的时间视角下权衡未来场景的可能性和多种实现途径。

From tactic to Strategy

Here the "utility" refers to the impact of the design process and method, which integrates future thinking on learners' practical application. Compared with the traditional course, Design Futures improves from "strategy" to "strategy" to realize the utility.

Previously, the output was primarily specific actions or solutions such as products, services, or experiences facing current problems, which were called "strategies." The latter strategy is more about long-term strategic planning. The goal is a heuristic foresight framework that requires weighing the possibilities of future scenarios and alternative paths to achieve them from three different time horizons.

4 信念传递

Belief Delivery

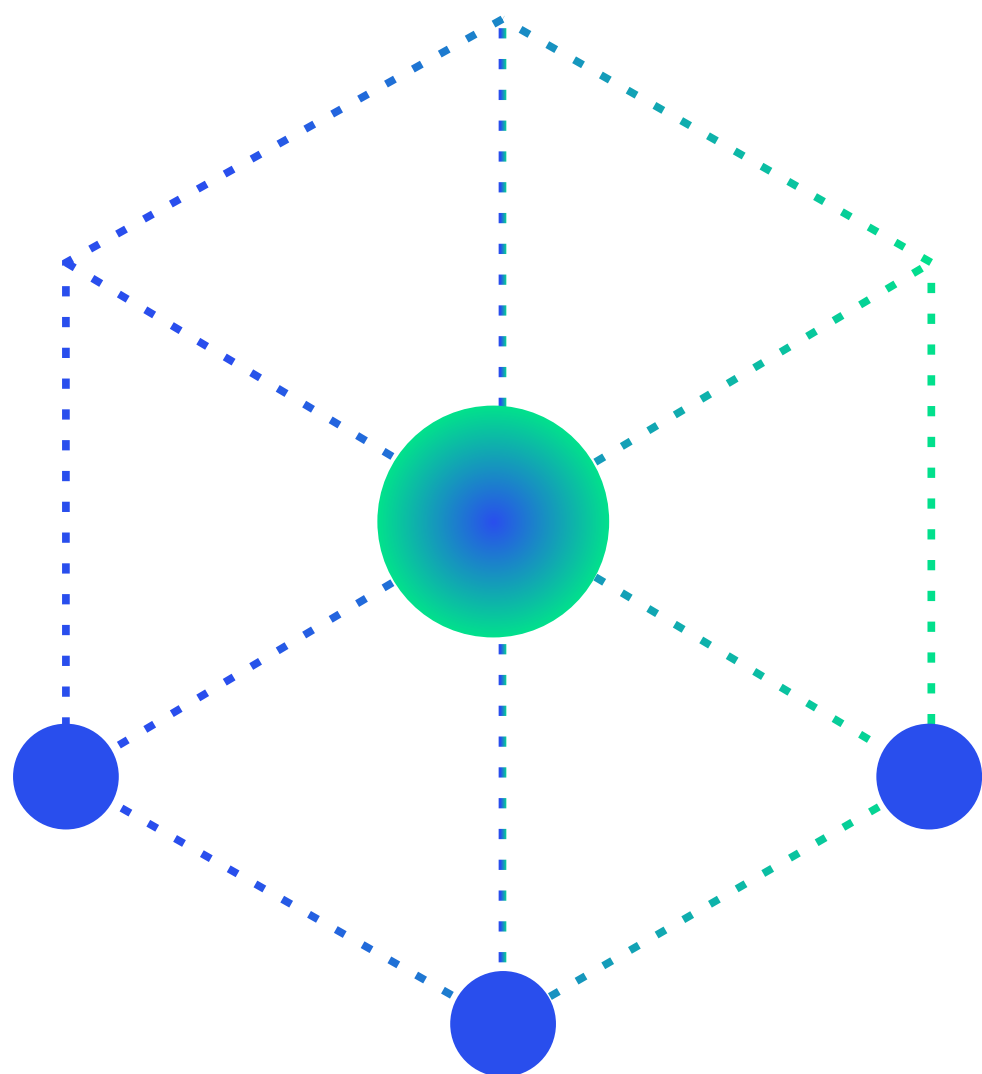
从个体到共同体

设计未来课程强调学习者在设计流程初期建立起对生态系统及生命共同体的共情能力，以创新性/创造价值和负责任的方式培养“未来塑造力”。在实现未来愿景的目标指导下，学习者本身及其在创造未来愿景过程中所产生的价值，会影响到直接的用户、利益方以及更多的间接受益者。将设计研究实践置于人文道德的社会文化语境下，对如何为命运共同体的构建可持续未来进行批判性反思。

Individual to Community

Design Futures emphasizes that learners should establish empathy with the ecosystem and community at the early stage of the design process— as the ability to “future-shaping” in an innovative/value-creating and responsible attitude.

Guided by realizing the preferable future vision, the value generated in creating the image will affect the learners, the direct users, stakeholders, and more indirect beneficiaries. The design research practice will be placed in the social and cultural context of the humanistic to help them critically reflect on building a sustainable future for the community.



4 设计未来趋势与挑战 Challenge and Future Trends

设计未来将如何发展？

**What is Design
Futures facing?**

Trends of Design Futures

设计未来的趋势

1 教与学的未来场景

Future scenarios in learning and teaching

- Future skill university 以发展未来能力为教育核心,
- Students learning needs-led 学生需求为主导的教育共创,
- My-university and co-creation 灵活的定制化个性教学模块,
- Lifelong higher learning 以“终身学习”为价值驱动。

3 预见推动教育转型

Foresight in Education transformation

- Futures in the teaching 未来方法参与教学,
- Leaners' future versions 学习者的未来愿景,
- Foresight engaged academic 预见参与研究方法,
- speculative worldview 建立思辨式未来观。

2 智能技术颠覆教育模式

Distribution of technology and education

- Everywhere think tank 自由的资源智库,
- Intelligent sharing knowledge 智能化知识共享,
- XR Virtual infrastructure 虚拟化基建平台,
- Collision of technology and ethics 科技与伦理讨论。

4 为可持续未来教育

Education for Sustainable futures

- Advancing ESD^[1] policies 推动可持续政策,
- Empowering and mobilizing youth 赋能并动员青年,
- Creation of synergies 创造协同式效应,
- Accelerating local level actions 加速本土化行动。

The Challenge Design Futures faced

设计未来面临的挑战

1 Community with a shared future for humankind 多重未来对命运共同体的挑战

Celebrate **uniqueness, diversity, equity, and interconnectedness** through a **futures-led mindset**.
Collectively construct **sustainable future stories** and create viable models utilizing creative **collaboration, intelligence, imagination, and empathy** to turn these stories into reality.

鼓励以未来为导向的**思维独特性、多样性、公平和相互联系**。

通过集体构建**可持续的未来故事**，并利用创造性的**合作、智慧、想象力和同理心**创建可行的行动范式。

Diversity of foresight perspectives 技术发展对预见视角的挑战

Jointly develop new knowledge utilizing **group wisdom** and evaluate **foresight tools** from a view of association.
Facing the dynamic environment, more accurate **foresight and assertiveness** are needed.
How can we grab **information and signals** through **group foresight** and enhance our ability to cope with changes.

利用**群体智慧**共同开发新知识，同样以群体的角度评估**多样的预见工具**。

面对动态的环境，组织和团体更需要准确的**远见和魄力**。

思考如何通过**集体远见**来获取**信息和信号**，提高我们应对变化的能力。

The Challenge Design Futures faced

设计未来面临的挑战

3

Coping with the wicked problems

社会群体应对抗解问题的挑战

There is no definitive formulation for the wicked problems, we need **open-mind solutions**, **practical foresight tools**, and **reasonable future narrative methods** based on **transdisciplinary knowledge** background and **decentralized mindset**.

对于抗解问题从没有明确的定义和解决途径，因此需要**开放思维的解决方案**，**实用的预见工具**，以及基于**跨学科**知识背景和分布式**思维**的合理未来叙事方法。

Sustainable futures in the perspective of Anthropocene

人类世对可持续未来的挑战

The transition from a society dominated by technology to a sustainable future , To **critically evaluate** the multiple stakeholders, a systematic **view of the planet**, and to **spark the change-makers**.

对于不可避免的**人类世**的现实，需要从科技主导的社会转向可持续发展的未来过渡，如何**批判性地评估**多方利益相关者的权益，建立**系统化的星球观**并激发明天的**创变者**。

4

5 设计未来宣言 Design Futures Manifestos

设计未来的未来之道

What should

Design Futures to do?

Design Futures Manifestos (shorthand)

We are committed to providing an academic platform for all the cross-innovators in related fields worldwide to explore advanced theories and discuss design and futures-oriented directions.

Design Futures is strategic, sustainable, self-resilient approaches ;

设计未来是战略性的、可持续的、自复原的方法

Design Futures is proactive, participative, preferred situations ;

设计未来是主动的、参与式的、合意的状态

Design Futures is empathy, equitable, eco-friendly scenarios.

设计未来是共情的、平等的、生态友好的愿景

Design Futures = Imagination+Empathy+Narrative+Execution+Transformation

设计未来 = 想象力 + 共情力 + 叙事力 + 执行力 + 变革力

Scheme the future with a **foresight perspective,**

Explore the future from a **global and local view,**

Create the future in the role of the **community with a shared future.**

以预见性的眼光规划未来，以全球化和本地化的角度探索未来，以命运共同体的角色共建未来。

Thank you !



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