Intersectional Design Cards

Welcome to the Cards!

Our goal was to **create a toolkit** for design and engineering teams that is responsive to intersectional needs and perspectives.

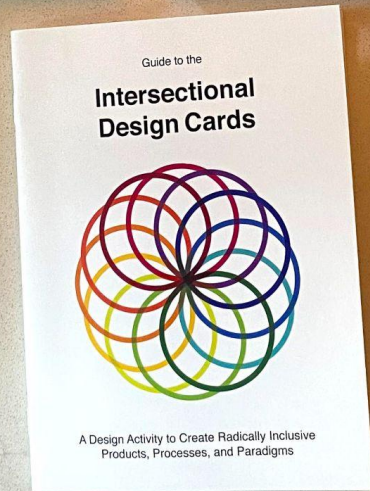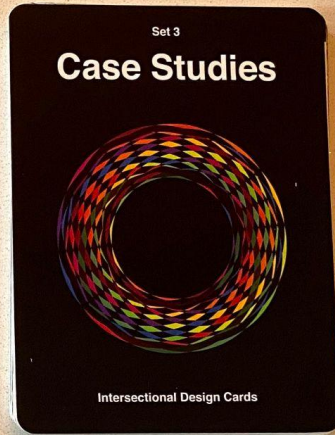The Intersectional Design Cards are designed to **help teams explore and develop intersectional design solutions.**
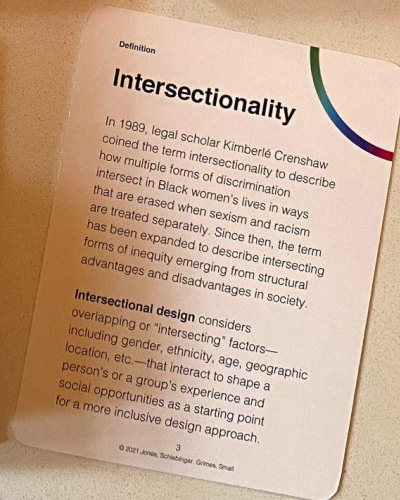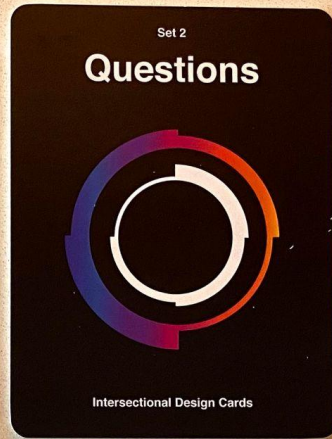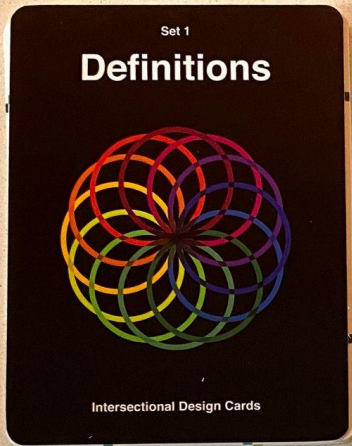
Each deck includes:

- A Guide Booklet

- Set of 12 Intersectional Factor **Definition** Cards

- Set of **12 Design Question** Cards

- Set of 16 **Case Study** Cards

Why use these cards?

The cards were designed to help people and teams:

✓ Navigate assumptions and biases to avoid designing to stereotypes.

✓ Integrate intersectional design thinking into your design work - from the beginning.

✓ Course correct.

✓ Identify new markets and business opportunities.

✓ Build an equitable, sustainable, and just society.
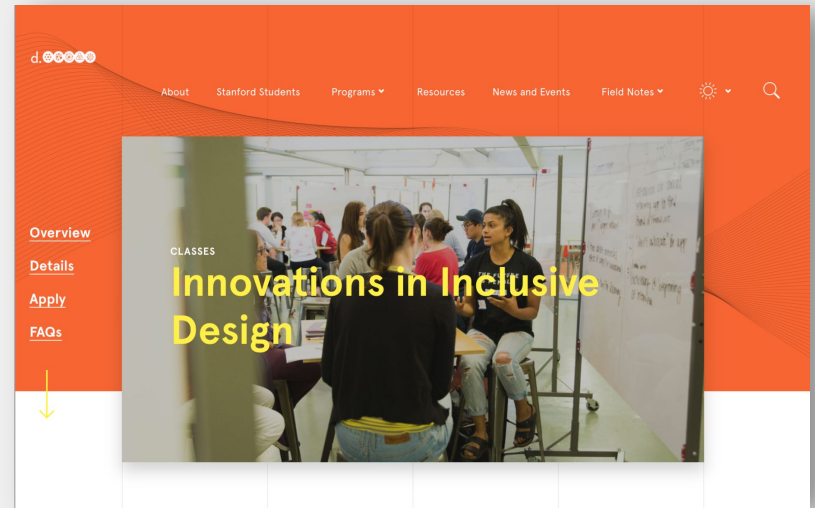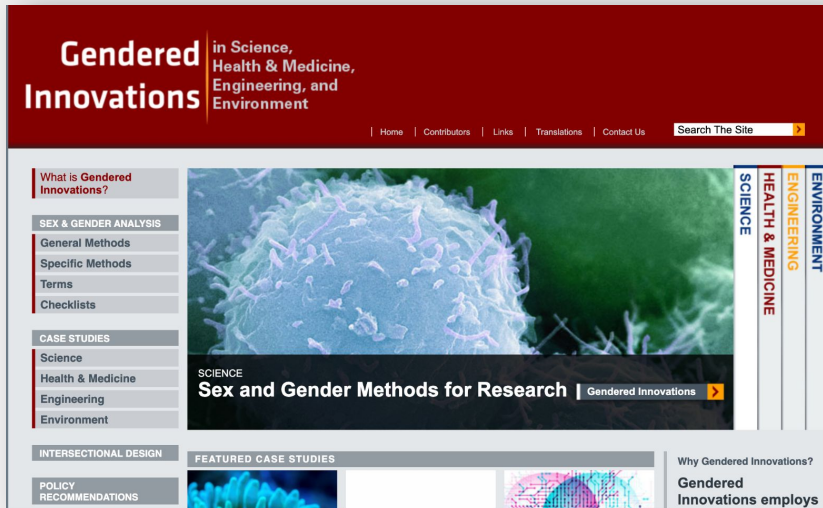
This work evolved out of an ongoing collaboration by an interdisciplinary team of researchers, designers, and practitioners, who conduct research, hold workshops, and teach classes at Stanford University's Hasso Plattner Institute of Design, the d.school.

Prototyping

The cards were prototyped for over a year, and included feedback from fellow educators, students, and industry experts.

Designed for use with designers and non-designers alike, the deck begins with a set of definitions:

What is **intersectionality?**
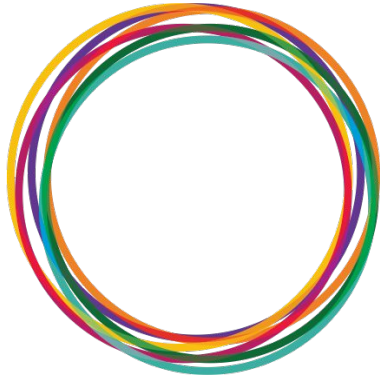
What is **design?**

What is **intersectional design?**

Intersectionality

In 1989, legal scholar Kimberlé Crenshaw coined the term intersectionality to describe how multiple forms of discrimination intersect in Black women's lives in ways that are erased when sexism and racism are treated separately. Since then, the term has been expanded to describe intersecting forms of inequity emerging from structural advantages and disadvantages in society.

Intersectional design considers overlapping or "intersecting" factors—including gender, ethnicity, age, geographic location, etc.—that interact to shape a person's or a group's experience and social opportunities as a starting point for a more inclusive design approach.

Age
Disability
Educational Background
Ethnicity
Family Configuration
Gender
Geographic Location
Race
Sex
Sexuality
Social and Economic Status
Sustainability

What are **intersectional design factors?**

Since 1989, intersectionality has broadened from gender and race, to describe multiple intersecting factors emerging from structural advantages and disadvantages in society. Intersecting factors may include age, social and economic status, educational background, geographical location, etc. that interact to shape a person's or a group's experience and social opportunities.

Our design case studies include—but are not limited to—the twelve intersecting factors, listed at left.

Other factors may include **appearance, language, political ideology, religion, immigration status, work background, Indigeneity, physical and mental health, and more.**

Design Level 01
Form & Function

Question 1

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01 Form & Function
Question 1

Who is the user?

Are you developing your product for a Black woman? An elderly man? A wealthy non-binary person? An LGBTQ+ individual in Sweden? An Asian child living in California?

21
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Design Level 02
Experiences & Services

Question 1

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02 Experiences & Services
Question 1

Who has physical access to your experience/service?

Who does it leave out based upon physiology, age, primary sex differences (e.g., genitalia) or secondary sex differences (e.g., breasts)? Can people who are color-blind use it? What about the hearing impaired?

24
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Design Level 03
Systems & Infrastructures

Question 1

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03 Systems & Infrastructures
Question 1

Who is at the design table? Who isn't?

Do you think that you are designing for everyone? If so, what aspects about this design are actually for you? Which aren't?

Who are the other stakeholders involved in producing your design (e.g., in your extended supply chain)?

Are you engaging future users in a process of co-creation and participatory design?

27
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Design Level 04
Paradigms & Purpose

Question 1

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04 Paradigms & Purpose
Question 1

How might your design unintentionally reinforce existing social norms?

How might your design influence users? How might it impact a user's life conditions and opportunities? How might it free people from repetitive tasks and foster educational and work opportunities?

How might your product challenge stereotypes in ways that promote social and environmental justice?

30
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Example of **Intersectional Factor Definition Cards**

Customization

The deck was created to **adapt**, with room for organizations and individuals to **add factors** that are relevant to their work.

What is
intersectional design?

Intersectional Design drives innovation while supporting social justice and environmental sustainability. It's about getting the design right for people across all of society—from the very beginning.

01 Form & Function

The look and feel of a design, its physical qualities and characteristics; and the impact of its materials and production on the environment.

02 Experiences & Services

User/customer experience, brand interaction, business models, strategies, and design decision-making.

03 Systems & Infrastructures

Systems thinking, sustainability, interdisciplinarity, networks, and databases.

04 Paradigms & Purpose

Conceptual frameworks, models, worldviews, major cultural themes, archetypes, ideologies, and mindsets.

How do we define **design?**

Today, we recognize that design encompasses many different things. Take, for example, the smart phone. Design might mean the look and feel of the device in your hand; the experience of video chatting or using a virtual assistant; the network of hardware and software that the device connects to; and/or the cultural trends that emerge through using the device in new and unforeseen ways.

Questions Index

01 Form & Function
1. Who is the user?
2. How might your product be made customizable?
3. In what ways are you mindful of the environmental impact of the materials and production methods used in your product?

02 Experiences & Services
1. Who has physical access to your experience/service?
2. If your design provides a service, could it result in any unintended discrimination?
3. Who might be marginalized within your target demographic?

03 Systems & Infrastructures
1. Who is at the design table? Who isn't?
2. What larger systems or infrastructures does your product or service belong to?
3. How will your design change as social or environmental relations change in the coming years?

04 Paradigms & Purpose
1. How might your design unintentionally reinforce existing social norms?
2. Where does your product or service succeed across intersectional factors?
3. What kind of future worlds would you like to see your design working within?

19
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Question Index Card

There are 4 question cards pertaining to each level.

Example of **Question Cards**

Gender

Gender

Refers to cultural attitudes and behaviors that shape products, technologies, environments, and knowledge—and includes: gender norms, gender identity, and gender relations.

Gender is multi-dimensional and may include women, men, transgender, genderqueer, gender-diverse individuals, non-binary, etc.

9
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Race

Race

Racial attributes, such as skin tone, may be important to design for developing technologies; e.g., facial recognition or infrared sensors may perform differently on different skin tones. In the U.S., the term race is used. However, terminology may differ across countries.

11
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Disability

Disability

Refers to different physical or neural divergent conditions that relate to movement, sense, or activities. Disabilities may impact how people interact with a product or service. Some may be visually impaired; others may have limited mobility or dexterity.

5
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Sustainability

Sustainability

Refers to environmentally responsible design that meets the needs of the present without compromising future generations. One sustainable design approach is Life-Cycle Assessment (LCA), a methodology for assessing environmental impacts associated with all stages of the life cycle of a product, process, or service.

15
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The deck is organized into three sets:

Example Design Levels, Case Studies, and Questions
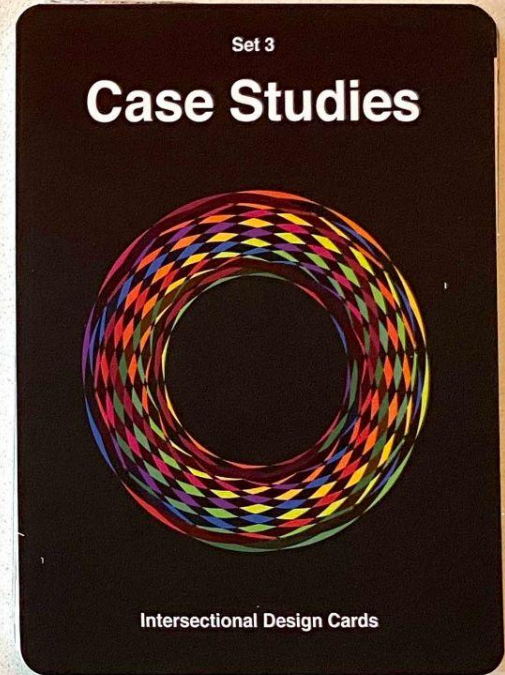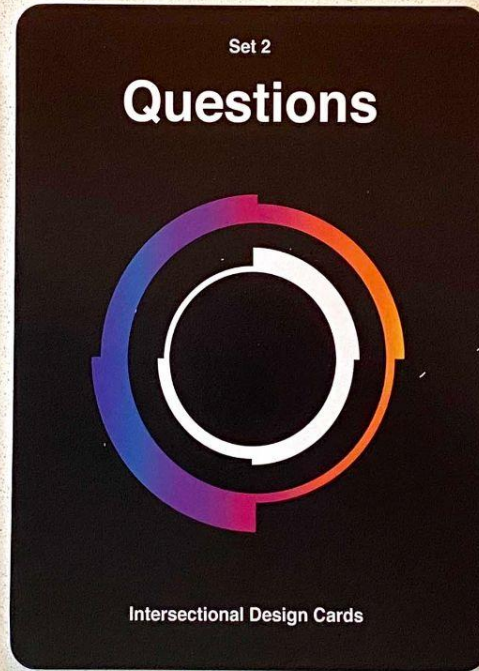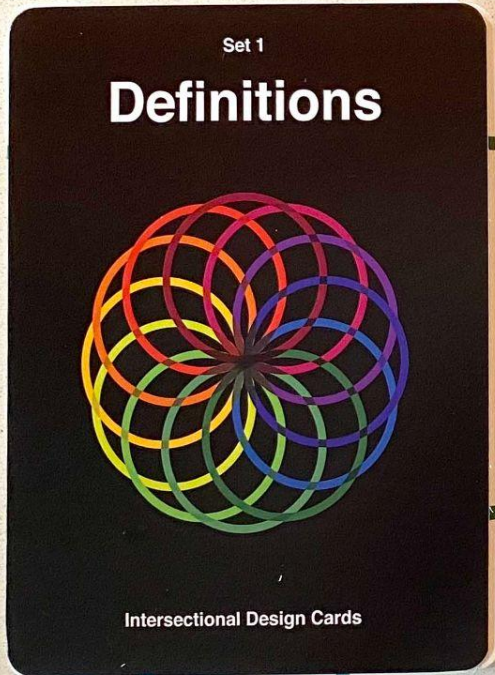
01 Form & Function

01 Form & Function
Question 2

How might your product be made customizable?

For example, how might you address sex-specific biomechanics, anthropometrics, physiology, and physical strength? Or skin tones, in facial recognition, for example? Are you considering how strength and dexterity differs for young people and elderly people?

22

Form & Function Case Study 1.3

Pulse Oximeter

Key Intersecting Factors: Race, Sex

n't work for people with darker skin.
ar-infrared technology does not
d, close the circuit, and dispense the
y, heart-rate monitors, even Fitbits,
r skinned people, which may put
us conditions like heart disease.
s, used to measure oxygen levels
timate oxygen levels in the blood in
skin, putting them at risk for organ
al oxygen is not provided.

be also inaccurate for women,
ypically smaller and geometrically
. Black women may experience the

37

Example Design Levels, Case Studies, and Questions

02 Experiences & Services

Virtual Assistants

Key Intersecting Factors: Gender, Ethnicity, Sexuality

ve primarily been gendered as
negative stereotypes of female
a group of Danish researchers
elop "Q," the first genderless
ase powering the voice was
bining strands of gender-fluid
d reached a genderless range that
s to categorize as either female
designers hope to add a viable
on for voicing virtual assistants.

Voice Assistants to avoid bias, they
mething about users' gender, age,
c location, etc. Black English and
ang, for example, may be filtered out
ned to detect rudeness and

40

02 Experiences & Services
Question 3

Who might be marginalized within your target demographic?

Have you considered intersecting factors that may reveal sub-group differences between people that would otherwise have been obscured? The elderly? The disabled? Men? Women? Cis? Trans? How might you design experiences and services for them?

26

Example Design Levels, Case Studies, and Questions

03 Systems & Infrastructures

03 Systems & Infrastructures
Question 3

How might your design change as social or environmental relations change in the coming years?

For example, in which ways might your design assume a traditional division of labor? How are you taking into account climate change challenges?

64

Systems & Infrastructure Case Study 3.3

Transportation Planning

Key Intersecting Factors: Family Configuration, Gender

...rt caregivers? Transportations ...ta by journey purpose to plan ...ditional data categories include, ...yment, education, and shopping. ...gories capture carework—caring for ..., and households—even though, ...rately, "care-related trips," become ...category by trip purpose.

...nt? Caregivers tend to make ...multiple, short trips that are grouped ...one long commute trip. Taking ...caregivers' travel patterns allows ...neers to design systems that work ...roader segments of the population.

45

Example Design Levels, Case Studies, and Questions

04 Paradigms & Purpose

04 Paradigms & Purpose
Question 3

What kind of future worlds would you like to see your design working within?

For example, how might your design fit into a genderless world? An intergenerational world? A socially just world? Which will your product, service and/or organization foster?

70

Paradigms & Purpose Case Study 4.1

Social Robots

Key Intersecting Factors: Disability, Gender, Race

Humans—whether as designers or users—tend to [...] and, consequently, gender machines [...] cultures, gender is a primary social [...] ots are designed in a world alive [...] gender identities, and gender [...]

[...] ut that, even though robots are [...] ite—and many have blue eyes, [...] ematic from an ethnic point of [...] designed for learners with autism [...] ASD)—comes in a variety of skin [...] e options might enhance human/

[...] ed to resemble a boy because [...] imes more boys than girls. It is [...] ate a robot for the millions of girls [...] enges of the disorder.

47
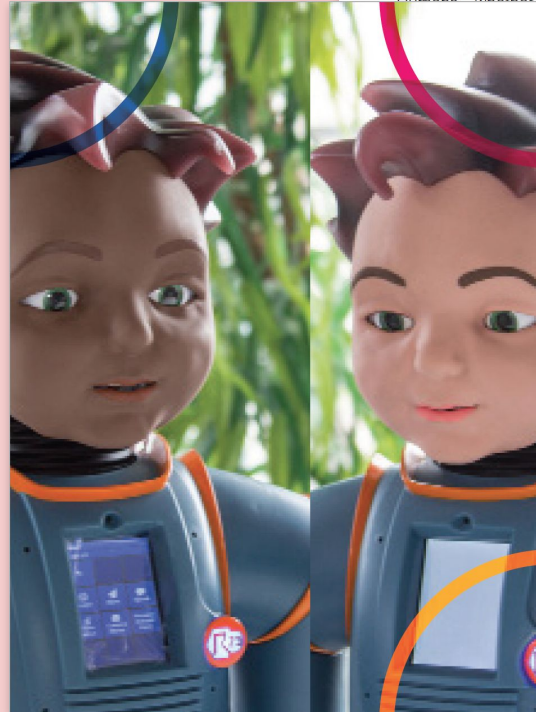
We purposefully designed the deck to be used in multiple ways.

Each person or team may have a different goal for using the deck.
To get you started, we suggest **three ways to use the cards**:
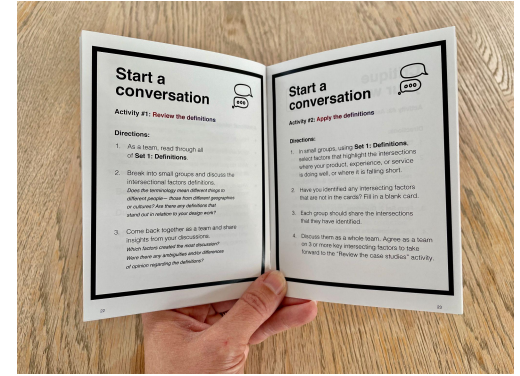
Start a conversation

Activity #1: Definition review

Directions:

1. As a team, read through all of **Set 1: Definitions**.

2. Break into small groups and discuss the intersectional factors definitions.
   Does the terminology mean different things to different people, e.g., from different geographies or cultures? Are there any definitions that stand out in relation to your design work?

3. Come back together as a team and share insights from your discussions.
   Which factors created the most discussion? Were there any ambiguities and/or differences of opinion regarding the definitions?

Brainstorm ideas

Activity #5: Creative Combination

Directions:

1. Using **Set 1: Definitions**, randomly select 2 intersectional factors cards (E.g. Family Configuration + Sustainability)

2. Creatively combine the cards and brainstorm design ideas at the intersection. (E.g. An intergenerational waste management system - for students and aging population living in co-housing/ a recycling calendar that acts as a learning opportunity for grandparents and grandchildren.)

3. Record your intersectional design ideas on post-its.

4. Dig deeper. Did you find new solutions?

Critique your work

**Activity #3: Critique questions**

Directions:

1. Take out **Set 2: Questions**.

2. In small groups, read out the design levels card. Select a design level to explore in relation to your design work (e.g., Form & Function, Experiences & Services, Systems & Infrastructures, or Paradigms & Purpose).

3. From **Set 2: Questions**, draw out the 3 questions relating to the level/s you chose.

4. Use the questions to critique your design work. Select a scribe to capture the responses.

Note

You might identify your design work as located at one distinct level - e.g. "we are designing a service that connects patients with speech therapists, so we identified with 'Experiences & Services.'"

Or, you might consider your design work as relating to more than one level - e.g. "we are designing an eco-friendly menstrual cup, where materials and production and Life Cycle Analysis are intimately connected, so we identified with both 'Form & Function' and 'Systems & Infrastructure.'"
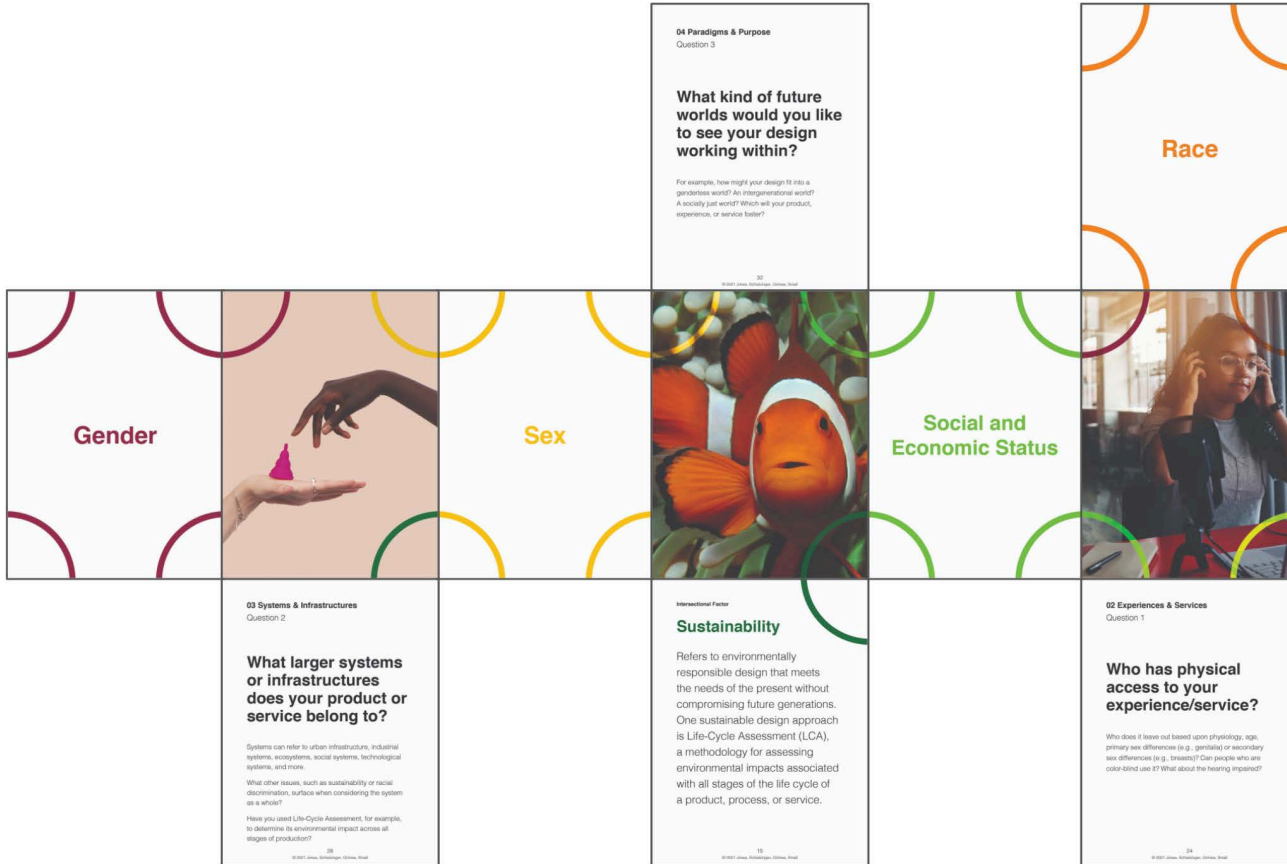
The cards are designed to visually connect with one another.

Teams can visualize the intersections between factors and answer questions pertaining to their products and services—or practice by analyzing the case studies.

Workshops with the Innovations in
Inclusive Design d.school class

Workshop with Vinnova,
the Swedish Innovation Agency

Cards in Action

The cards, published in
November 2021 and
distributed by Stanford
University Press, have been
prototyped with students
and start-up teams,
presented at several
conferences, and reviewed
by industry professionals
and academics.

Future workshops are
planned with the Green
Library at Stanford as well
as several Silicon Valley
tech companies.

Free Access Online

In addition to the physical deck, all of the case studies and questions are available online for free in order to reach as many people, organizations, and institutions as possible.

Accompanying website and digital version of the cards: https://intersectionaldesign.com/

Thank you, Core77!