

## Diverse Participation & Perspectives

This principle is about inviting a diversity of people with a broad range of needs, preferences, interests and skills into the design process, and in so doing, weakening the distinction between user and designer.

To support diverse participation and enable the design to be as closely linked as possible to the application, the design and development tools should be as accessible and usable as possible. Those new to the process must be provided with the information and resources to fully participate. Communication methods should be transparent and multimodal, and design considerations for “alternative” modes of interaction should be given equal weight.

This does not denigrate the skills of professional designers but expands their responsibility to ensure diverse participation is supported and diverse voices are heard.

## One-Size-Fits-One

We all have diverse needs, and we all experience changes in our lives, in both the short-term and long-term, that affect our interests, goals and desires. As a result, designs that are flexible and allow for customization are more likely to meet our needs. A one-size-fits-one approach avoids the often segregated and specialized design solutions that are intended to meet the needs of those “on the margins”. These solutions do not serve the individual or society in the long run.

Adaptable designs that allow for personalization result in integrated systems that work better for everyone. In the digital world, we have the freedom to create a design system that can adapt, morph, or stretch to address each design need presented by each individual.

One-size-fits-one design solutions give us the power to discover and choose what works best for us in any given context. This puts more control into the hands of any one of us to create our own experience, and to modify this experience as needed.

## One-Size-Fits-One

### Try

Think of something you've come across in your daily life that demonstrates an adaptable design. For example, an office chair with multiple adjustment features, or a suitcase that can be turned into a backpack. How could this design be improved to offer additional or different adaptations? Or, consider 3 adaptations you'd like to have on a product or tool you use on a regular basis.

### Use

- ◆ Design for Adaptability & Flexibility
- ◆ Design for Uncertainty

## Diverse Participation & Perspectives

### Try

Make a list of the communication methods used in your everyday life (meetings, informal chats, video conferences, emails, etc.). Identify some possible barriers that might prevent some from participating in that communication. Consider your own challenges with these processes or those of someone you know.

### Use

- ◆ Practice Co-design
- ◆ Work Openly
- ◆ Communicate Multimodally
- ◆ Facilitate Inclusively
- ◆ Collaborate
- ◆ Test Frequently

## Integrated Solutions

Too often, design solutions that meet the needs of marginalized users, including users with disabilities, are segregated from the mainstream, resulting in unaffordable solutions and isolation of a particular population. An inclusive solution is integrated into mainstream design, making it more affordable and more usable for all. For example, an accessible playground that is engaging and fun for all kids, including those with disabilities, allows them to play together rather than segregating some kids into a separate space.

Creating adaptable and flexible designs is one way to allow for integration. In addition, when diverse participation in the design process is encouraged from the start, the resulting solutions are much more likely to be fully integrated. By leveraging the “curb-cut effect” (a ramp from the street to the sidewalk designed for wheelchairs which also meets the needs of others e.g. cyclists), a solution created to meet the needs of a particular population becomes more usable for everyone.



## Interconnectedness

Once we release a solution, it will become part of a larger system. Although we can determine specific functionalities and define a target user group, we cannot predict and control who will use our solution and how it will be used. Thus, design processes need to take into account the interactions of various systems with complex and unique humans, as well as the external social, cultural, economic and technological forces.

It is not practical for a designer to meet the needs of every user and include every desired feature within a single solution, nor to predict the infinite variety of unexpected uses that a solution can be subjected to. By creating flexible and adaptable designs, the user can continue the design process by adapting, remixing and repurposing to better meet their needs. By incorporating an openness, flexibility and adaptability into our designs, we acknowledge and allow for this interconnection, thereby promoting the organic growth of our systems and increasing their reach.



## Interconnectedness

### Try

- Cause and Effect

### Use

- ◆ Design for Adaptability & Flexibility
- ◆ Design for Uncertainty

## Integrated Solutions

### Try

Think of one of your latest projects. List some of the users that it intends to serve. Now consider an alternate solution that would serve an individual or group of users with different needs, but the same goal. How could you integrate these two solutions together such that it could meet the needs of both groups?

### Use

- ◆ Design for Adaptability & Flexibility
- ◆ Practice Co-design
- ◆ Integrate Accessibility From the Start
- ◆ Test Frequently

## Disability as Mismatch

The medical model defines disability as a trait; something permanent and limiting. In contrast, an inclusive design approach is one that perceives disability as a mismatch between our needs and the design features of a product, built environment, system or service. This shifts the responsibility to the design, and to the designer, to correct the mismatch.

For example, a digital interface with poor contrast does not match the needs of someone standing in direct sunlight, or someone with low vision. A multi-story building without an elevator does not match the needs of someone in a wheelchair, or someone who is exhausted after a long day.

Inclusive design considers this mismatch to be conditional, solvable through design, and the result of many factors, including:

- Context (e.g. upon awakening in the morning)
- Environment (e.g. a dark room)
- Hardware and software (e.g. desktop vs. smartphone)
- Unique personal needs (e.g. I'd rather listen than read)



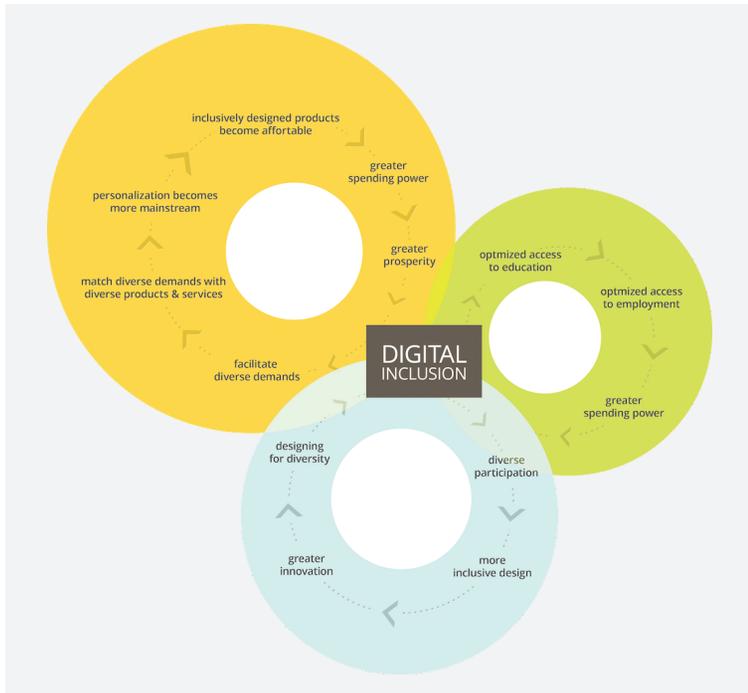
## Virtuous Cycles

Altering any factor in a complex system can cause an amplified reaction in other systems (e.g. changing the education system in one country can impact the world economy). This reaction can be negative (vicious) or positive (virtuous). The dynamics of connected and entangled global networks means that emerging technical practices have the potential to introduce powerful virtuous cycles of digital inclusion.

Virtuous cycles of inclusion are triggered by insisting on diverse participation from the start. When diverse needs are met, individuals have greater access to participation (e.g. in a design process) and can thus communicate their diverse demands. This pushes so-called “outlier” solutions into the mainstream, making inclusively designed solutions more affordable. This in turn increases individual spending power and prosperity, further increasing access to participation.



## Virtuous Cycles



### Use

- ◆ Design for Uncertainty
- ◆ Work Openly
- ◆ Practice Co-design
- ◆ Facilitate Inclusively

## Disability as Mismatch

### Try

Record three examples of an experience of mismatch that you've had, no matter how large or small. For example - standing at an automated bank machine in the glare of the sun, I couldn't see the screen at all. How did you feel when this happened? What did you do about it? How could the design of the product or service be modified to meet your needs?

- ◆ Inclusive Design Mapping

### Use

- ◆ Focus on functional needs & preferences
- ◆ Design for adaptability & flexibility

## Personal Discovery

Allowing for personal discovery of needs and preferences is an important aspect of inclusive design. If an individual has never been exposed to something (e.g. changing settings on a digital device), it is not enough to ask “what works for you?”. If someone is unaware of an available solution, there is no way for that individual to know that it will help them, or to know where to find it or even to be motivated to seek it out.

Designing for playful and engaging discovery in a low-risk environment creates a space for a user to learn about their own needs and preferences. Integrating adaptability and flexibility into our solutions puts more power into the hands of any one of us to create our own experience, and to modify this experience over time and/or in new contexts. It makes space for the unexpected and for variations and nuances. Allowing for the sharing of information among users is another way to empower users; in this way an individual can depend on a growing community of people with similar interests and needs.



## User-Continued Design

Inclusive design aims to extend the design process into the designed artifact itself, giving users the ability to continue the design process after the product has “shipped”, in order to adapt the design to better meet their needs. For users, design can become a process of undoing, extending, or changing the design to better match their context, needs and preferences. In this way, inclusive design sustains the design process by encouraging user stewardship through actively supporting its own unexpected, creative, and ongoing redesign by users.

Imagine that a learner has the ability to adapt the appearance of a digital learning resource to be easier to see, and share this adapted version with others. This means that learners are provided with the means to construct, derive and share their own learning materials. As a result, learners become their own teachers and curriculum creators, and the ability to create content is not solely reserved for teachers and experts, hidden behind “authoring” or “administrative” modes.



## User-Continued Design

### Use

- ◆ Design for Adaptability & Flexibility
- ◆ Design for Uncertainty

## Personal Discovery

### Try

Consider moments of increased self-awareness in your life when a preference, like and dislike, or a need became clear to you. Was it a time when you were forced to adapt to a new situation? For example, while travelling, you slept in a different bed and discovered that a different kind of pillow helped with your neck pain? Or perhaps it was a time when someone offered you a new choice that you hadn't been exposed to before. What aspects of the situation, environment, or the thing itself helped you to feel comfortable to try something new?

### Use

- ◆ Design for Adaptability and Flexibility