

# www.designingwithpeople.org:

-A new web-based resource for implementing design for social inclusion-

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**Abstract:** *www.designingwithpeople.org* is a new web resource created to inspire and support designers to design more inclusively. This paper aims to explain its rationale and how it works as an education tool to support designers to understand methods of people-centered design. Its main goal is to encourage designers to develop their own ways to make connections not only within their subject area, but also beyond it, to be able to generalise and transfer the principles of people-centered design into their own practice. By registered its domain name as .org rather than .com, it aims to act as a collective platform for designers or design researchers to share their experience of user researches in design. Apart from explaining the ethos of developing this web tool, this paper also describes the design process involved and concludes with three key elements for developing a design tool for social inclusion.

**Key words:** *social inclusion, design tools, people-centered design, design ethos, emotion*

## 1. Introduction

*'We don't need your patronising help, you designers. If you've come here to help us, you're wasting your time; we don't want to be helped, thanks just the same. Yet we do have some interesting observations to make about our daily lives, about our lifestyles, about our communication, and about all of their attendant dysfunctions. If you could kindly change your attitude and help us explore how we will live, then perhaps we can do something together.'* This quotation is from an older user involved in the Presence Project who was inspired [19] to urge designers and design researchers to reposition their relationship with the 'users'. He suggested that the practice of design should shift from designing 'for' to designing 'with'.

The main goal of developing a new design tool is to engage designers to understand this new practice. This paper aims to position this tool in current discussions around the terminology of 'users' in the development of democratic innovation, design practices and pedagogical debates.

## 2. Designing *with*, not designing *for*

The consideration of people who are going to be benefited from design during design processes is not a new concept in design practice - many humanitarian designers have emphasized this relationship. The best examples include design classics like *Designing for People* (1955) by industrial designer Henry Dreyfuss and *Designing for the Disabled* (1976) by architect Selwyn Goldsmith. However, these relationships between designers and design users seem restricted to a quantitative approach based on measuring people's bodies and analyzing the usability of designs in relationship with people's abilities or disabilities. Gradually, this '*designing for*' approach has been challenged. Jane Fulton Suri from IDEO presented a model at the Include 2007 Conference showing a new democratic design development, which encourages designing '*with*' people. This indicates that design practices should also consider people's emotions and feelings rather than only their capabilities to use design.

## 3. Starting from the 'users'

Deciding the term to describe those who use design has been a long-term argument [14]. Designers, architects, planners and policy makers create products, services, systems, or environments through design processes. 'Users' is the general term used to describe those whose lives are directly affected by the material outputs of design processes. What does the term '*user*' mean and how does it relate to other terms to objectify different people? Within many design disciplines, 'user' is the common term to describe the unknown person who is going to use the objects and systems, such as in the 'user manual' for computer software. The term '*customer*' is a more personal term to describe future buyers and is commonly used in commercial marketing and public relations strategies, as in 'customer service' counters at department stores. The term 'client' refers to those who commission projects and who have direct contact with the project team.

When the scale of the design project becomes bigger and more stakeholders become involved, as in a building or urban planning project, there are more terms to describe different types of users such as 'occupant' and 'inhabitant'. However, 'users' might still be the most popular term. Forty [11] pointed out that architects tend to refer to 'user' rather than the other mentioned terms. The reason is that the 'users' represent a "*homogeneous and fictional unit*". Their existence can help architects to formulate their briefs under their own control and assumption. This is another manifestation of the technology of abstraction used by architects, especially under the modernist ideology.

In *The Production of Space*, Lefebvre [15] explains the meaning of 'user' among other vocabularies of modern architecture, '*The word 'user' (usager)... has something vague – and vaguely suspect – about it. 'User of what?' one tends to wonder... The user's space is lived – not represented (or conceived)*'. This comment indicates the importance of the idea of emancipatory power against functional determinism. Some progressive architects, such as the Dutch architect Herman Hertzberger, believe that the purpose of architecture is to enable '*users to become inhabitants*' [12]. It is about the emancipation of usage to create for "*the users the freedom to decide for themselves how they want to use each part, each space*' [ibid].

Unlike Forty, Hill [13] used the role of the 'user' as the point from which to demonstrate the changes of the opposition between the architect and the user starting from the modernist era. '*To use a building is to alter it, by*

*for example physically transforming it, using it in unexpected ways, or conceiving of it anew. The user can be passive, reactive or creative, whatever the character of the space he or she inhabits, but space can affect use, and each design suggests a certain user*. For Hill [13] there are three attitudes of architects towards users, as manifested throughout architectural history. These are: 'passive users' with architects as 'father figures', 'reactive users' with flexibility, and 'creative users' with reformulation of subject-object relations in the architectural dialogue. However, he pointed out the paradoxical connotations of the term 'users': the negative connotations are about reducing architecture/design to a set of functional specifications and reducing people to generic abstractions, *'however, it is better than occupant, occupier or inhabitant because it suggests positive action and the potential for misuse'* [ibid]. This also reflects to the practice of user research that should include 'users' in pleasure and active modes rather than positive 'testing' situations.

#### **4. They are people, not users**

*"By the late 1990s, it appears that 'user' had lost its earlier connotation of the disadvantaged and disenfranchised and become a means for architects to criticise their own practice"* [11]. Forty concluded his 'user' section with this explanation for the decline of interest in the 'user' and 'user needs'. This statement indicates that the status of the term 'user' is being challenged. As with Swain [ibid], most of these designers prefer to use the term 'people' rather than 'users'. 'People' denotes the general population and is a more general term than the term 'user'. On the one hand, using the term 'people' can show a bigger vision of design. On the other hand, using such a general term responds to Forty's critiques by suppressing all the differences which exist between specific terms such as 'customers', 'clients' or 'inhabitants'.

In 2004, the UK Government Department of Trade and Industry (DTI) conducted research about user-centered design (UCD) by visiting top design consultants in the USA to track the development from user-centered design (UCD) to people-centered design (PCD). This report adopted the term 'people' to replace 'user', because *"...UCD is often thought to be purely about 'usability' or making things 'easy to use'. Frequently, UCD becomes merely 'user testing' and is brought in at the end of the product development cycle. Users are often conceived in a task-centric way that fits into current technology-led business models"* [2].

#### **5. Consumerism Versus Empowerment**

The selection of terms from 'user' to 'people' of our new web tool demonstrates that it is created based on the fundamental belief that people should not be 'test subjects' in design processes.

Today mass collaboration has become a relatively common phenomenon, especially with technology and through the Internet [18]. It has proved that involvement of people is important to research or knowledge generating activities including design practice. Apart from the encouragement of the UK's funding bodies, the changing relationship between individuals and the State (involving the challenge of grassroots movements to top-down institutional practices,) is the other two main forces for user participation in design research [20]. However, until recently, there were few models of good practice to draw on [ibid]. One of them is the continuum between consumerism and empowerment, *'The consumerist model consists of relatively small incursions by [older] people into the research process, most commonly as a relatively passive reference point among several to*

be ‘consulted’ for example through focus groups or membership of project advisory committees. At the other pole, much less frequently, older people are more closely involved as active research participants’ [3]. In order to persuade more designers to design with people and use design thinking as a tool for different disciplines to collaborate, we created our website by registering [www.designingwithpeople.org](http://www.designingwithpeople.org) rather than [www.designingwithpeople.com](http://www.designingwithpeople.com) with the aim to suggest a community or organisation of active design partners in the design research process.

## 6. Main users of [www.designingwithpeople.org](http://www.designingwithpeople.org)

A crucial question underlying this process is: ‘who are the users of the tool?’ This website is going to be a public access site or open source for everyone, but there are two main groups who we are designing with – design practitioners and design educators.

### 6.1 For design practitioners – Inclusive Design and design debates

The direct target ‘user’ of this tool is the design community. However, ‘design’ is very general term, especially in post or late-modern society. It has plural or even multiple meanings. For our design tool, we were keen to identify different forms of ‘design’ so that we could develop a tool to cover their needs. An important issue was to identify the position of Inclusive Design and how it relates to the other art and disciplines.

The first borderline can draw between traditional design and emerging design [17]. Table 1 shows the two types of design: traditional and emerging. The emerging design disciplines are focusing on designing for a purpose, i.e. a more process-driven approach. In other words, the definition of design is evolving dramatically. The idea of ‘design as a tool’ to provoke discussion and address social issues is recently classified as one form of design practice [20].

**Table 1.** A snapshot in time of traditional and emerging design practices by Sanders (2006)

The traditional design disciplines focus on the designing of “products”...	...while the emerging design disciplines focus on designing for a purpose
Visual communication design	Design for experiencing
Interior space design	Design for emotion
Product design	Design for interacting
Information design	Design for sustainability
Architecture	Design for serving
Planning	Design for transforming
	Design for social inclusion (new)
	Design for participating (new)

This discourse of design classification is continually developing and more typologies of design practice are being published. They form an important step for design practitioners to understand their practice and work in a tactical way to make design practices more responsive to the needs of society [14]. Instead of publishing books or academic papers, discussions were generated first on the Worldwide Web. For example, a new way to classify different forms of design was found online and it is an on-going discussion (figure.1). Design 1.0 is the general classification of design by disciplines, and then Design 2.0 is the divide between artifacts and systems or services. Design 3.0 refers to the relationship of design and business in which design thinking is introduced to

transform organizations, especially commercial ones. The latest type is Design 4.0 – this is ‘Social Transformation Design’ and is more focused on design thinking and the application of creativity from designers to contribute to social development. It reflects the fundamental philosophy of Inclusive Design, which is to ‘encourage designers to design inclusively and design for social inclusion and for those being excluded by design’ [8], and aims to transform our societies through design.

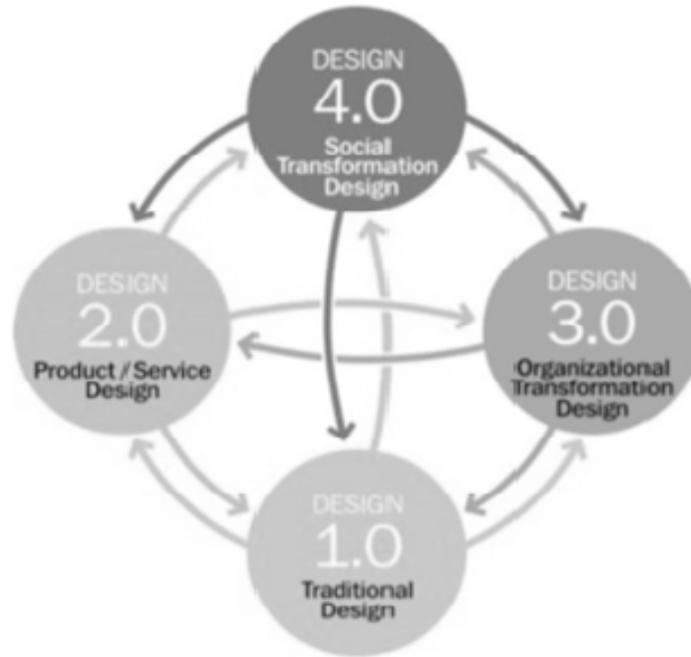


Figure.1 Presentation at EXPOSED 09 Conference, Arizona State University School of Design, 7 March 2009 by GK Van Patter, Co-founder, Next Design Leadership Institute, New

## 6.2 For design educators – Inclusive Design and pedagogy theories

The Inclusive Design movement responded to the development of social inclusion at policy level with the influence of the ‘Design for All’ and ‘Universal Design’ movements in the US and Europe. The development of Inclusive Design first became visible in the early 1990s in the UK [8]. This concept of design for social inclusion quickly emerged as a potentially important driver of positive change.

*“Design of mainstream products and/or services that are accessible to, and usable by, people with the widest range of abilities within the widest range of situations without the need for special adaptation or design.” [1]*

This formal British Standard (BS 7000-6) for Inclusive Design was launched to define Inclusive Design in 2005, ten years after the 1995 introduction of the Disability Discrimination Act (DDA). The standardisation of Inclusive Design processes aims to illustrate to business how a systematic approach to Inclusive Design can be used in the development of products and services capable of use by a diverse population without difficulty or need for future adaptation. This suggests that Inclusive Design is a process but not a practical design discipline like product, fashion or even service design. It is about a specific way of designing and reasoning for design. Through identifying those being excluded by design, such as older and disabled people and involving them in the design process, more inclusive products, systems or buildings are designed for the mainstream market.

Therefore, we believe that tools to ‘teach’ Inclusive Design need to be learner-led for self-reflection which aligns two main definitions of theories of teaching and learning. First of all, it is the influence of a phenomenological driven approach, ‘Based on the idea that the learner’s perspective defines what is learned, not what the teacher intends should be learned. Teaching is a matter of changing the learner’s perspective, the way the learner sees the world’ [5]. Through the new web tool, our intention is to work with our learners by sharing our knowledge and experience with them and enables them to develop their own Inclusive Design methodologies and methods in design. The second influence is the Constructivist approach, which highlights that the ‘learner has to do to create knowledge’ [ibid].

Our web tool is a platform that we create for our learners to understand the practice of Inclusive Design by providing guidelines and resources. It enables learners to understand the concept and adapt to their own practice. At the Royal College of Art Helen Hamlyn Centre we are currently developing a new form of design workshop, The Methods Lab, to work with this web tool in order to maximise the ‘learning through doing’ experience.

Pedagogical theories related to the learning and teaching of Inclusive Design through a designed web tool can be further explained by the Structure of Observed Learning Outcome (SOLO) taxonomy [5]. It is a model that describes levels of increasing complexity in the student’s understanding of subjects. It is a student-led approach, in which the teachers need to find how much students understand what is being taught to them before the teaching materials are developed. This exchange between teaching and learning explained by the SOLO taxonomy (figure 2) became a useful tool for us to define different levels of understanding of learners in Inclusive Design as well as explaining the selection of methods of engagement in ‘teaching’ Inclusive Design.

With more than ten years of experience in this area, we have identified that the practice of Inclusive Design clearly requires a high level of understanding. It suggests attitude changes in design practice – learners requires an ‘extended abstract’ level of understanding, where they can make connections not only within their subject area, but also beyond it, to be able to generalise and transfer the principles and ideas underlying the specific instance. However, we found out that its effect depends on personal experience and personalities of the designers and is not directly reflected by their education level.

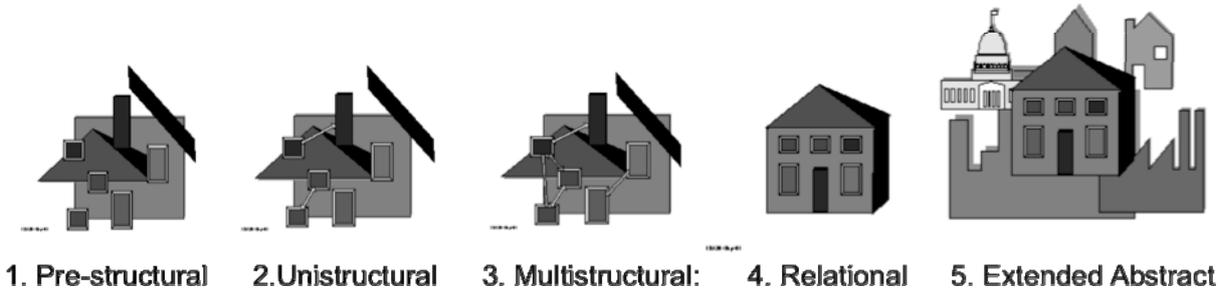


Figure. 2 SOLO Taxonomy by Biggs [5]

More specifically, looking at learners' responses, Bateson's typology of three levels in learning<sup>1</sup> gives a more practical framework to understand learning and teaching of Inclusive Design. Since Inclusive Design is a process to encourage attitude changes, it needs to work at the higher level of critical and reflective learning which students experience as learners within their own social and political context. Recently, Brockbank A & McGill [7] proposed a more proactive and integrated model. This is based on Bloom's three domains of learning<sup>2</sup> and values all three domains to achieve a balance between them: learners should understand the knowledge (K), engaging with strong feeling and emotional supports (E) and transfer the knowledge to actions and interactions with the world (W).

The main aim of our web tool is to emancipate designers or design students with social concerns and this echoes 'Higher Education for Capability' (HEC), an important education program in the UK, to challenge the responsibility for delivering education. It based on the Education for Capability Manifesto published by the Royal Society of Arts (RSA) in 1979. Apart from the traditional purpose of higher education of fostering scholarship and valuing knowledge, the HEC proposed 'to assist students in their development of the capability to benefit from and cope with modern life, and to contribute productively to their society' [10].

## 7. Ethos and design of [www.designingwithpeople.org](http://www.designingwithpeople.org)

One recent argument suggested that missing knowledge for designers to practice Inclusive Design is the anthropometric data on potential and specific users [9] and further urged development of supports to help designers to address existing anthropometric data through three categories of Usefulness, Usability and Desirability of the user data set [16]. However the approach of [www.designingwithpeople.org](http://www.designingwithpeople.org) has been derived from conversations with designers who have been practicing inclusive design or humanitarian projects. They expressed that '*[Exciting] Inclusive Design tools (anthropometric data and persona) can only give [them] general impressions of users*' [23] and they emphasized that, '*they cannot replace interactions with real people*' [22]. However, most of the interviewed designers articulated, '*it is more difficult to know how and where to find the 'users'*' [24]. Therefore, this web tool is designed as an inspirational tool rather than replacing interactions with people during design processes. It aims to act as the first step and one-stop learning tool for designers to explore their own ways to design with people.

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<sup>1</sup> Gregory Bateson (1973), three levels in learning [4]:

- a. Level I: First order learning is confined learning, where facts or skills are defined by context, e.g. the classroom
- b. Level II: Second order learning takes the learner outside a confining frame, enabling comparisons and connections to be made so that decisions are based on richer data, encompassing subjective factors as well as objective material. Learning by doing offers the opportunity for second order learning.
- c. Level III: Third order learning involves discovering the ability to doubt the validity of previously held perceptions, the learning being about learning itself

<sup>2</sup> Learning Domains or Bloom's Taxonomy, Benjamin Bloom (1956,1964) three domains of educational activities [6]:

- a. Cognitive: mental skills (K)
- b. Affective: growth in feelings or Emotional areas (E)
- c. Psychomotor: manual or physical skills (W)

Based on this rationale, three elements were developed for the construction of this web tool and became the framework to collate resources for teaching Inclusive Design (figure.3). All these comments by designers were key to developing the tool.

**7.1 Ethos one: Sharing knowledge and provoking new design thinking**

The first section, *Insights from people*, provides two ways for designers to meet their future users virtually before meeting ‘real people’ and also offers two ways to search data: people performing in different Instrumental Activities of Daily Living (iADLs) or specific characters according to people’s anthropometric data. The first set of insights is from the Helen Hamlyn Centre’s rich track record of people-centered and inclusive design projects, over ten years. All the user interactions from a wide range of projects are distilled from the design issues and include themes of Personal Care, Household, Work & Money and Communication. By reorganizing our own user data through a set of ‘trend essay’ to overview specific insights and links to relevant projects, we are sharing our experience in order to stimulate new thinking in people-centred design practice. Figure 3 shows the way we collate many user interaction materials from the design processes of our projects.

RA projects	DBA challenges	Design for Our Future Selves	Studio projects	Government funded research
Design Issue	Design Issue	Design Issue	Design Issue	Design Issue
User Interactions	User Interactions	User Interactions	User Interactions	User Interactions
Design Concept	Design Concept	Design Concept	Design Concept	Design Concept

Figure. 3 A resource built on the Helen Hamlyn Centre’s ten years of user-interaction experience

The other way to browse user interaction data is to look at different ‘characters’. Additional to the user interactions data, this section includes a series of character profiles that loosely represent the spectrum of abilities within the UK population, based on design exclusion data from the Engineering Design Centre, University of Cambridge. These individuals illustrate the need and potential of an inclusive design approach. The characters represent a diverse range of individuals and illustrate their lifestyles and design needs. All this data can be searched by keywords.

**7.2 Ethos two: Providing holistic resources for different learning styles and levels**

The other section of the web tool is entitled ‘how to design with people?’ and includes two parts: Methods and Resources. The ‘Methods’ part contains a wide variety of user research methods with description and evaluation. It is the result of revisiting existing methods libraries, and presenting the best in an accessible and useful online format, linked to exemplar projects and insights. There will be guidelines to encourage users of the tool to identify the most appropriate methods for their current project. In addition, in the ‘Insight’ section, a range of

useful resources are available to assist designers in engaging with users in a practical way including advice on recruiting participants, for example consent forms and best practice guidance.

### **7.3 Ethos three: Building an integrative platform for the future**

This is a one-stop resource for those interested in people-centered design and who would like to practice it and share with others. In developing this web tool and registering it as .org it is our intention to get the debate going and form a virtual community to share and build practice together. There will be a membership system built into the tool. This is to help start the community but also to protect the personal information of people with whom we have conducted research.

## **8. Conclusion**

This is a position paper about the rationale of creating a web tool to collect, share and develop methodologies, in people-centered design and related fields. This paper is concluded here but the process just starts in terms of testing the tool with designers and refining its navigation and content.

## **9. Acknowledgment**

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