From inclusivity to social innovation for all: the case of Methods Labs

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Abstract
This paper is part of the collaboration between a sociologist and a design researcher. Through observing the performance of interdisciplinary groups of graduate design students participating in our design labs, we explored the forms of exchange among them and identified the difficulties as well as barriers against teaching and learning Inclusive Design.

The labs are named as the Methods Lab, a new design exercise to promote design for social inclusion started from a postgraduate art & design college in the United Kingdom. By continual conduction and refinement of different forms of these design labs, we set up a double-loop cycle of learning in order to reach for the point of reflection for the aware of disturbances in relation to an existing paradigm. We also stress on the designerly ways of knowing that is basically solution-focused through which different solutions are proposed. This kind of abductive reasoning helps us to reflect the nature of the problems in hand.

Through analysing our experiences and journey in the first three Method Labs, this paper aims to rationalise and extend the use of reflexivity from social researches to design researches, and also explore the extent of how inclusive design methodology could lead to social innovation and sustainability. Of more important, it aims to urge designers to think of their relationships with potential users and their social missions through working with an online platform, i.e. www.designingwithpeople.org and investigate how to shift from design products to design social innovation.

Keywords
Inclusive Design, Participation, Disability, Design Exclusion and Social Inclusion, Double-Loop Learning, Solution-focused ways of design, Social innovation, Sustainability

Introduction – Inclusive Design in design education

Whilst the introduction of legislation and the ensuing development of standards in the United Kingdom have lead to a formalisation of Inclusive Design spirit, difficulties still
exist in applying the wide range of related methodologies to complex design situations and communities. There have been barriers in the practical application of the principles of Inclusive Design into mainstream design education [1]. This paper is part of the collaboration between a sociologist and a design researcher; both parties expect to deal with practical difficulties in teaching the application of social inclusion and design. Two of our major concerns are how to figure out the appropriate methods to understand ‘needs’ of the socially excluded people and how to accomplish Inclusive Design practice. We maintain that the answers to these questions would help us to design the curriculum in teaching Inclusive Design.

Since 2008, we employed the reflexive ethnography approach to understand the relationship between researchers and subjects in design research. As Davies [2] stated that this approach can ‘lead to a form of self-absorption that is also part of the definition of reflexivity in which boundaries between subject and object disappear, the one becomes the other, a process that effectively denies the possibility of social research’. We are also guided by the model of double-loop learning [3], which ‘it offers the potential for paradigm shift through reflective dialogue, in terms of knowledge, self can action in the world’ [4]. By continual construction and refinement of different forms of Methods Lab to explore design processes for social inclusion, we set up a double-loop cycle that allows points of reflection for new possibility of design to be rendered possibly.

Learning through doing

Our basic tenet in training people as socially responsible designers through Inclusive Design practice is that we should develop different forms of mechanisms to provide ‘experiential learning’ experience to participants. The reason underlying such a decision is based on our experiences in analysing and conducting an Inclusive Design awards scheme for graduate students, which starts from the 1990s. The second author of this paper found that most brilliant students were good at working on relational or extended abstract level in their own subjects but they are too confident to recognise the need to spare their time to ‘learn’ or ‘explore’ the principles of Inclusive Design. As a corollary, their subsequent designs are basically short of any Inclusive Design practice. After a series of reflections on the trainees’ performance in the awards scheme, in 2008, we identified the most important educational element for Inclusive Design is to enhance the experiences of learning through hand-on and holistic experience for participants to reflect and transfer their own practice.

After this reflection, we followed Dewey’s tenets that learning is a process of going through ‘trials and errors’. As Dewey [5] described, ‘true education can only happen in empirical situation through reflection of the real world’. The idea is to design a process of learning through doing, learning through experience. Moreover, as Cross [6] argued that the designerly ways of knowing is basically solution-focused through which different solutions are proposed and evaluated in order to reflect the nature of the problems in hand. It is a kind of abductive reasoning.

Since the first lab in 2008, participants were asked to search for the implications of their design so as to manifest the nature of the problems in hand. Through this, participants have to think through the possible outcomes upon putting their design to work, and see if their solutions lead to new problems and subsequent questions.
What is Methods Lab?
The design exercise, entitled the Methods Lab, was first introduced in 2008 as a collective exercise and awareness experiment for graduate design students at the Royal College of Art to learn social responsibility. It brings together design tutors, alumni and students from different art and design disciplines to work together with an assigned ‘creative partner’ (i.e. design users with specific disabilities) to co-create a design concept for a more inclusive society.

The title ‘The Methods Lab’ is drawn from the study by Aldersey-Williams H, Bound J and Coleman R [7], from which they developed user research methods with experts in design so as to develop their ideas into a methodological and practical framework to understand experimental design methods. Besides, the construction of the format of the Methods Lab is based on the successful Challenge Workshops, which has been developed by Julia Cassim since 2000, the outcomes of these workshops have proved that the principles of Inclusive Design could not be grasped until designers have experienced it and reflected on it. These experiences encourage us to employ ‘learning through doing’ teaching model for designers to ‘learn’ inclusive design practice.

Another key component of the Methods Labs inspired by the Inclusive Design Challenge is the involvement of creative partners. This tactic is not only to offer more opportunities for those being design excluded to experience creative design processes, but throughout the process of designing different Methods Labs; we continually refine our framework to enrich the experience of Inclusive Design methodology by changing profiles of ‘creative partners’ in different situations. Refinement is basically guided by the ethos of double loop learning. With this theoretical guidance, we expect our participants figure out some creative solutions for social inclusion and beyond. They are called design labs not challenges or workshops because our role as facilitator is to provide an experimental experience for participants to identify their own methodology as well as for ourselves to reflect our practice of design for social inclusion and participation.

The Journey - From inclusivity to social innovation

A series of Method Labs gatherings is conceived as a journey towards a possible destination, which to all parties is unknown. The construction of the trajectory of the journey is totally retrospective. Table 1 shows how this evolution happens: our participants are all Master Design students working with invited ‘creative partners’. Apart from the objective of the first gathering, the objectives of the rest are changing according to issues and problems, which had been identified in the previous Methods Lab. In other words, the results of each Methods Lab would bring forth a new set of questions for the next Methods Lab. The result of one lab is a lesson by which new insights are gained and taken as the resources to figure out the design of the next round of the Method Labs. After each round, we identify the issues, which have appeared after the application of the proposed solution for the problem in hand. We attempt to apply the double-loop learning to the experiences gained from the gathering which explains ‘learning that results in a change in the values of theory-in-use, as well as in its strategies and assumptions’ [8].
### The Methods Labs

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<tr>
<td><strong>Objectives</strong></td>
<td>Explore new way to teach inclusive design</td>
<td>Explore social innovation through interacting with ‘invisible disability’</td>
<td>Explore (inclusivity + sustainability = social innovation)</td>
</tr>
<tr>
<td><strong>Creative partners</strong></td>
<td>Artists and designers with disabilities</td>
<td>Young MS patients and new charities of MS and disability and design</td>
<td>Mixture of people with hearing impairment and MS patients + older users</td>
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<tr>
<td><strong>Participants</strong></td>
<td>MA design students</td>
<td>Design students</td>
<td>Design alumnus</td>
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<td><strong>Leaders</strong></td>
<td>Design tutors</td>
<td>Design tutors</td>
<td>Design alumnus</td>
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<td><strong>Programme</strong></td>
<td>2 days Looking at creativity and inclusivity</td>
<td>2 days Rethink about social innovation together</td>
<td>2 days Collective solutions to sustainable lifestyle With a special keynote speaker</td>
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<tr>
<td><strong>Result</strong></td>
<td>From user-centred to people-centred design Transfer individual student</td>
<td>From personal solution to system design From social model to cultural model of disability</td>
<td>Further explore cultural model of disability</td>
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<tr>
<td><strong>Lesson</strong></td>
<td>Need to develop a framework for inclusive design in order for students to follow</td>
<td>Need inspirational figure</td>
<td>• More precedents • Longer time frame</td>
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Table 1. The evolution of the Methods Lab

### Methods Lab One - working with designers & artists with disabilities

*The Methods Lab: Exploring Design for an Inclusive World,* started as a creative workshop to explore new ways to design with people for social change. In this stage, we did not figure out a well-defined problem for the participants. The issues stated were about ‘how designers could put people at the heart of the creative process and increase understanding of the needs of disadvantaged groups, ensuring that our designed environment is inclusive and accessible?’ Then, the next question is: *Who are the people?* These were the questions posed for our participants in the pilot Methods lab, a two-day workshop that took place in November 2008.

The 1st Methods Lab brought together 30 design students from different art & design departments, who were divided into four multi-disciplinary teams. In each team there involved an invited ‘creative partners’ who are professional artists or designers with disabilities.
different forms of disabilities. Their role was to inspire the design teams to work out design concepts on the basis of their creativity and unique insights. Creative partners worked with the design teams throughout the two-day workshop and delivered inclusive proposals together with the team members in a college-wide presentation in the late afternoon of the second day of the workshop.

Four teams responded to the design brief differently with different proposals. Team 1 members worked with a painter with visual impairment and designed an audio device for museum and gallery visitors to access exhibit information. Similarly, Team 2 members who were working with a painter who has visual problems focused on the general application of how information was displayed in our environment such as bus stops. Team 3 members who worked with two wheelchair users suggested the ‘Lodestone’, an interface that provides extra information for directions at ground level. Finally, members of Team 4 designed ‘Fragile’, a game that aims to raise awareness of disabilities by encouraging people to empathise through their experience. This game was inspired by their interaction with their creative partner who is a textile designer with Rheumatoid Arthritis (RA). For more details of each project, please visit http://www.hhc.rca.ac.uk/1939/all/1/methods_lab%281%29_09__.aspx).

Lessons (1): Inclusive and Participatory Design

In this first round of the Method Labs, it is clear that most members were oriented to problem-focused. They thought of people with disabilities as those who need assistance from designers. People with disabilities are the users of their design products. Their main emphasis is only about testing with users like many other types of user-centred research or design to see if their designs could assist the users. But it has nothing to do with the involvement of the creative partners, i.e. people-centred. The members were able to ‘interpret’ the needs of the potential users but had not put them at the heart of the design process yet. We found it intriguing that why the designers always incline to take a leading role. However, there was a participant who had a different experience in design with users after the design lab.

Fig.1 shows the Vidarbha Cotton Widows project by a communication design student, who was a team member of Team 4. Her individual project started with a two-month trip to the Vidarbha Region in India. It examined the extent of an advertising campaign and the claims made by the world biggest producer of genetically modified seeds. Through interviews and discussions with more than 15 widows of GM cotton farmers, seed shop owners, the head of the local GM seed company Ankur Seeds and an organic farmer who has been developing a native seed bank that helps farmers to return to native seeds. Apart from designed a book, video and new campaign to present the situations of why farmers committed suicide after the failure of the project are illustrated, she also used her research results to work with those widows to apply funding from Germany to build new houses (Fig.1, right). This reinforced our intention for individual learning and adapted the practice of Inclusive Design into students’ own practice. This highlights the difference between the methodology of user-centred
design which regarding ‘users as subjects’ while people-centred such as participatory design and co-design as collective creativity in design, which treats ‘users as partners’ [9].

**Methods Lab Two: Living with MS (Multiple Sclerosis)**

From the experience of the 1\textsuperscript{st} Methods Lab, we found that it was essential to develop a framework for students to guide creative partners at the heart of the design process. We designed a kind of guideline for this purpose and see if this would facilitate the participants to acknowledge the creativity of the design partners. Our solution has five steps that were developed into a poster (fig.2):

1) **Be inspired by creative partners** – Creative partners were briefed to ‘design’ a creative journey to inspire design students
2) **Identify design directions** – all the team members need to analyse their journey with their creative partner and identify possible design directions
3) **Integrate creative and collective thinking** – from individual ideas, all the team members need to work together to develop a holistic concept
4) **Design for all, including people with disabilities** – testing concept with their creative partner and other scenario
5) **Introduce design principles for social inclusion** – develop a way to present their design process and concepts to wider audience

In the 2\textsuperscript{nd} Methods Lab, four design teams worked with members from SHIFT.MS and Enabled by Design, both are charity organizations set up by young patients with MS (Multiple Sclerosis). Four MS patients with different social backgrounds were invited to sensitize the participants to notice the diversity of MS patients. For example, Team 1 was worked with a wheel-chaired user who has suffered from MS for over 15 years and her main issue is her emotional detachment from urban living due to disability. The final design ideas are intriguing. Design students suggested the ‘Memory Scarf’ which is a digital diary serving as a navigating device. It is also a personal accessory, which can express emotions without talking. Four teams proposed improvement in different service systems in our society to benefit different people and the general directions were to replace medical devices with personal belongings. (All projects details can be found at [http://www.hhc.rca.ac.uk/1943/all/1/methods_lab%282%29_09.aspx](http://www.hhc.rca.ac.uk/1943/all/1/methods_lab%282%29_09.aspx)).

![Fig.2 Inclusive Design Guideline/Poster for the Methods Lab](illustration by Ali Hodgson and graphic design by Selina Swayne)
Lessons (2): From inclusive design to social innovation

Among the four teams, there were creative ideas but still some teams did not put the user at the heart of the design process. The team members showed no signs of their awareness of the psychological and emotional reactions of the users in using their designs. Only Team 3 introduced the design website ‘Inreach’ which was the result of the suggestion put forward by the creative partner with MS. The creative partner initiated this idea since he needs to follow physiotherapist’s instruction to do exercise in order to release pain. However, he finds that following the advices of experts appeared to be a less enjoyable experience. He also feels subordinate to the experts who may not have legitimacy to instruct others at all time. Throughout the interaction with design students, he suggested replacing exercising with productive works such as gardening so that he can earn money through his repeating exercise treatment. He also wants to share his idea on the proposed website, InReach (fig.3) and encourage other people to put creative ideas for the challenge of disability and unemployment.

This social innovation idea puts forward by Team 3 criticises the medical model of disability in which patients are only regarded as the ‘users’ waiting for the assistance by the people with expertise but leading designers to develop inclusive design ideas to accomplish a more inclusive society. This creative idea of ‘Inreach’ downplays the role of medical practitioners and points out the pitfalls of the social model that focusing too much on criticising social barriers would ignore the creativity of the people with disabilities. In fact, the creative partner in Team 3 never thought of himself as restricted by the social environment or having a self-image as the victims of either the medical practitioner or social barriers. With a suitable design of kits, he could reveal his productivity and creativity at the same time. His form of participation in social life not only changes the power relationship between experts and laymen, but also the general conception of the social model that the boundary between social barriers and individuals is fixed and given.

Methods Lab Three – working with young people with disability and older people

The ideas of ‘InReach’ Website in the 2nd Methods Lab reminded us what Murray R. et al [10] suggested, ‘[a]ll over the world, social innovation is tackling some of the most pressing problems facing society today – from fair trade, distance learning, hospices, urban farming and waste reduction to restorative justice and zero-carbon housing. But most of these are growing despite, not because of, help from governments’. It is right to say that many social innovation projects were started by people and designers become facilitators. As inspired by double-loop learning, changing our values or even pre-reflective being would bring forth social innovation. Thus, in this round we focused on how to change respondents’ habitual belief and pre-reflective ways of thinking.

We put forward two big social issues: inclusivity and sustainability. These are two general questions, which serve as the objective of their designs. But the core of this
round is how to learn from the ordinary people. We thus added another new type of creative partners to the team. Apart from creative partners with impairments, in each team there was an elderly person from the University of Third Age (U3A).

We also invited designer and gerontologist, Professor Patricia Moore, to give a keynote speech to share her experience from the experiment of disguising as an 80-year-old woman to travel around the USA to her recent design projects about empathic design. Additionally, we introduced the developing webtool, www.designingwithpeople, as the introductory session in order to give a holistic framework for participants to understand the practice of designing with people which are based on ‘how to start inclusive design processes’ and ‘what are the related methods and ethical procedure’.

**Lessons (3): Tacit Knowledge for sustainability**

Over a two-day period, four teams of post-graduate design students worked together to explore inclusive design methodology and develop design proposals, which were presented at the end of day two. It was a very common discovery that the tacit knowledge of people was essential in our effort in looking for solutions to achieve sustainability. It seemed to be the result of our encouragement to the participants about being aware of the needs for knowledge exchange that all teams were able to capture the expertise of the everyday lives experience of the ‘creative partners’. Most of the ‘creative partners’ took the lead on the development since they in fact had more experience of sustainability than design students, projects details can be found at [http://www.hhc.rca.ac.uk/2661/all/1/methods-lab-09-10--.aspx](http://www.hhc.rca.ac.uk/2661/all/1/methods-lab-09-10--.aspx).

We found that even if designers play the role of an facilitator of communal life, people are able to design for their own lives. Just like the Community Recipe Book (fig.4), put forward by one of the teams, which aims to provide ideas for events that could be organised to meet neighbours, the book could be used as a sourcebook of suggestions about what could be done to help one another. The book was intended as a start-up tool, followed with the movement promoted through radio and local initiatives. As the movement generates popularity, it is envisaged that ideas could be shared via on-line social networks such as Twitter and Facebook for community.

![Fig.4 The ‘Community Recipe Book’](image)

**Discussion: A two-way exchange through designing participation for social inclusion**

The Methods Lab is a new form of design exercise for social inclusion as well as innovation with the aim to develop on-going dialogues between Inclusive Design practices with other social practices. Based on all these discussions, we expect to reach for one more level in terms of our new model which is concerned with the balance between making better designs which are inclusive and creating learning experience to participants through design events.
The Methods Lab is a platform for different stakeholders to test and try out methods through specially designed situations, i.e. interactions with design excluded. Through this journey of Method Labs, we found that the advocacy of, sharing resources led to more people’s awareness of those livings around them and higher motivation to look out for other resources. Secondly it would promote a local ethos of sharing. Additionally, its development works together with the development of a web resource, www.designingwithpeople.org.

Our major finding of this journey is that we have neglected two issues. The first is our ignorance about the potentiality of the tacit knowledge that is used in the daily practices of the ordinary people, no matter whether they are people with or without disabilities, no matter they are young or elderly people. The other omission is that people are communal in nature. Social innovation could be developed from communal life.

During the Methods Lab, we are concerned with the lessons learnt from one stage and those lessons in turn become the crux of the practices in the following round of Methods Lab. Frankly speaking, at the moment we started the first round, we were not certain if we could design an educational platform on which participants could have dialogues with creative partners, let alone making suggestions about how to achieve sustainability and social innovation. Inspired with abductive logic, we just looked forward to having new experiences and astonishment in the future. What we could do is to extend the impact of design events on participants and leave a legacy of design practice for the subsequent events. This was inspired by Cross [6] that solution-focused ways of designing is a way of applying the abductive logic in design. For us, solution-focused ways of designing should be accompanied with the double-loops learning, i.e. changing the pre-existing values, in order to further our effort in generating new ideas of design.

After our reflection on the experiences gained from the Method Labs, we believe that social change could be achieved by encouraging both designers and our ‘creative partners’ as Giddens’ suggestion [11] to ‘exercise personal power to change their living environment and write their own biography’. In order to encourage participants to change their living conditions, we adopt Inclusive Design as a methodology to sustain the impact of design as a creative force for both design community and their recipients. All these good practices are in line with Lee’s [12] idea of ‘Design Participation Tactics’ which urge designers to work closely with people in the real world and to play the new social role as design advocates rather than design experts. Moreover, according to de Certeau [13], tactics are temporary and spontaneous, not necessarily linked to an overall pre-planned approach. In other words, ‘tactics’ represents a kind of on-going reflective action on hands-on experience. As hands-on experiences come from both designers and the community of the daily practitioners, the community of practice in design is composed of designers, the users, and the users’ communities. This echoes the motto of ‘Design Participation Tactics’ that designers should go into people’s field of everyday life. This underlies our decision on using ‘learning by experiences’ as the general orientation of the Method Labs.

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References


