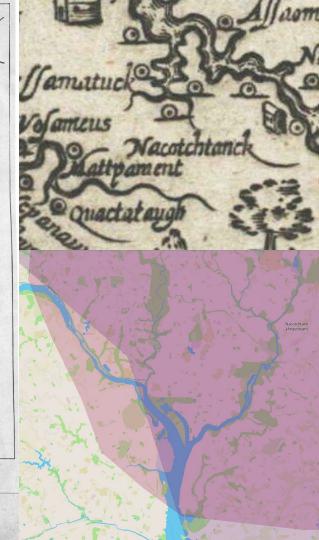




DIAGRAM OF INDIAN VILLAGES

From Development of the United States Capital.
Washington, Government printing office, 1930.
(71st Congress, 1st session. House document no.35.



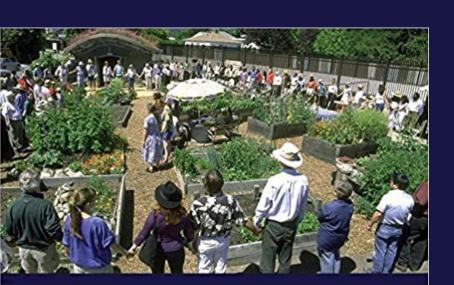






### THE DEATH AND LIFE OF GREAT **AMERICAN** CITIES





BUILDING COMMONS AND COMMUNITY

Karl Linn

Homo Sapiens appear

Collaborative Design in Scandinavia in 1970s

Karl Linn, 1960s

Lippit, Lewin, Radke 1940s



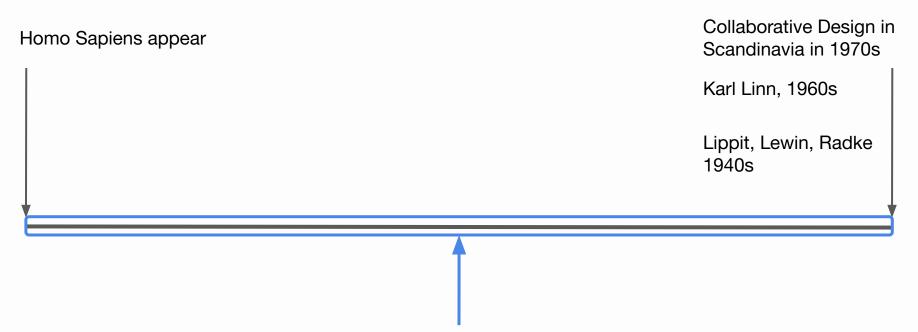


Homo Sapiens appear

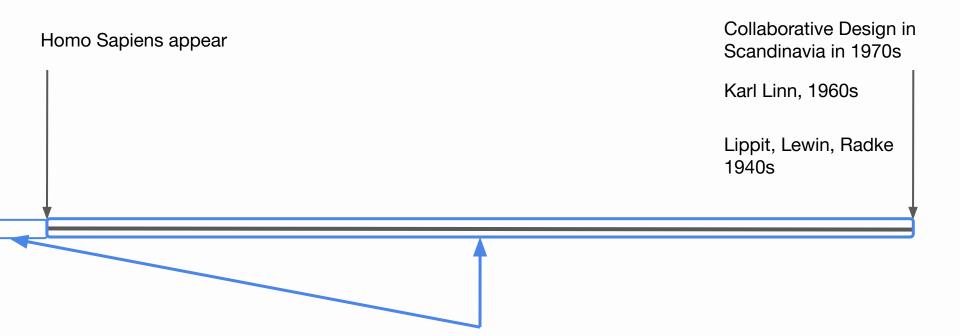
Collaborative Design in Scandinavia in 1970s

Karl Linn, 1960s

Lippit, Lewin, Radke 1940s



Participatory Design throughout the history of communities



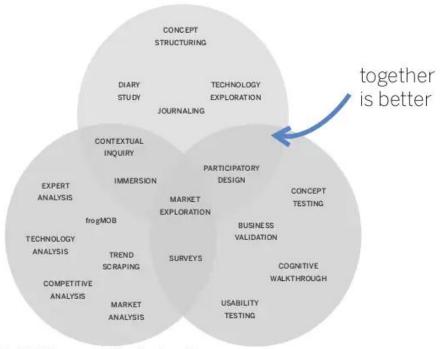
Participatory Design throughout the history of communities

What is Participatory Design?

**Participatory Design** Co-design Co-creation **Collaborative Design Co-participatory Design** Participatory Co-design **Cooperative Design** Co-operative Design

### PARTICIPATORY DESIGN IS A METHOD

It should work alongside many other methods and types of design research, it isn't "one method to rule them all."







USING COMMUNITY ENGAGEMENT TO IMPROVE THE DESIGN AND PERFORMANCE OF AFFORDABLE HOUSING



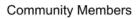






Design Researcher









Facilitation is power.

### Community Member Influencer, Networker





Community Member Design & Research

Community Member Historian, Poverty Reduction Expert





Community Member Education Expert



Community Member Movement Builder, Doctor



Community Member Multilinguist



Community Member Organizer, Activist

### **Community Member**





Designer Community Member

Community Member Designer





Community Member Designer



Community Member



Community Member Designer



Community Member

### Community Member Facilitator





Community Member Designer

Community Member Designer





Community Member Designer



Community Member Facilitator



Community Member Designer



Community Member Facilitator

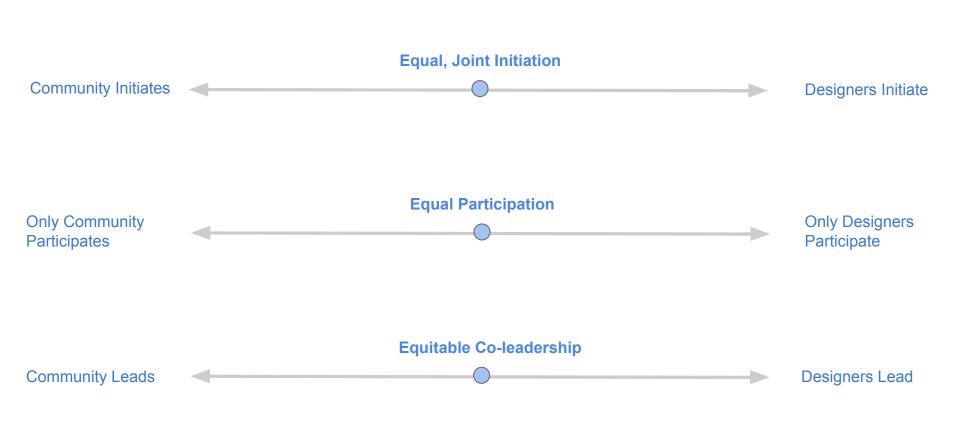
## 1. Community members always present & leading

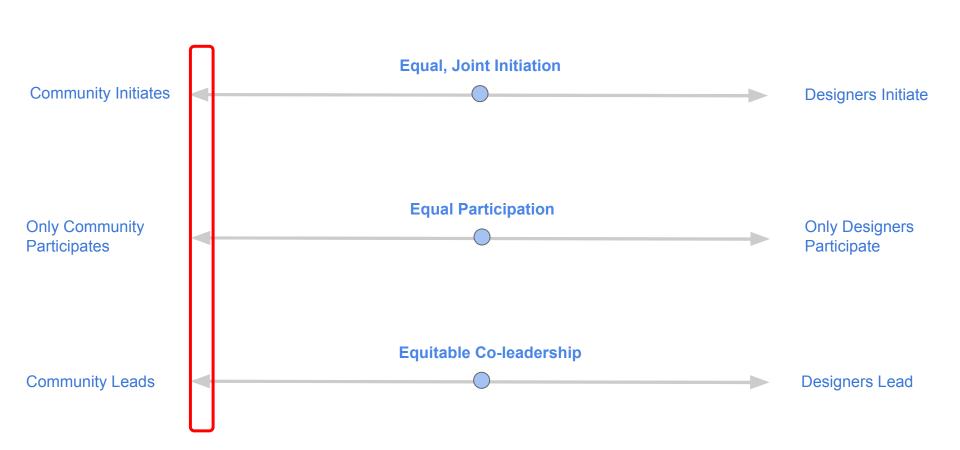
2. Community members outnumber

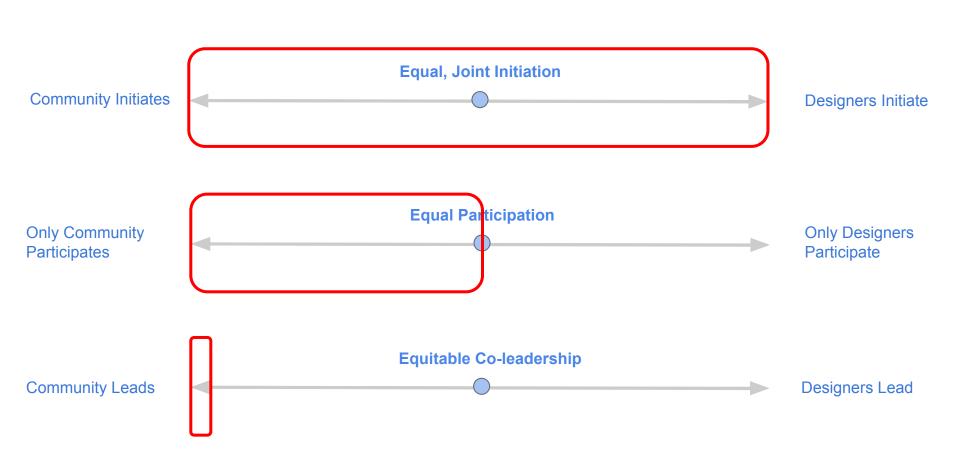
professional designers

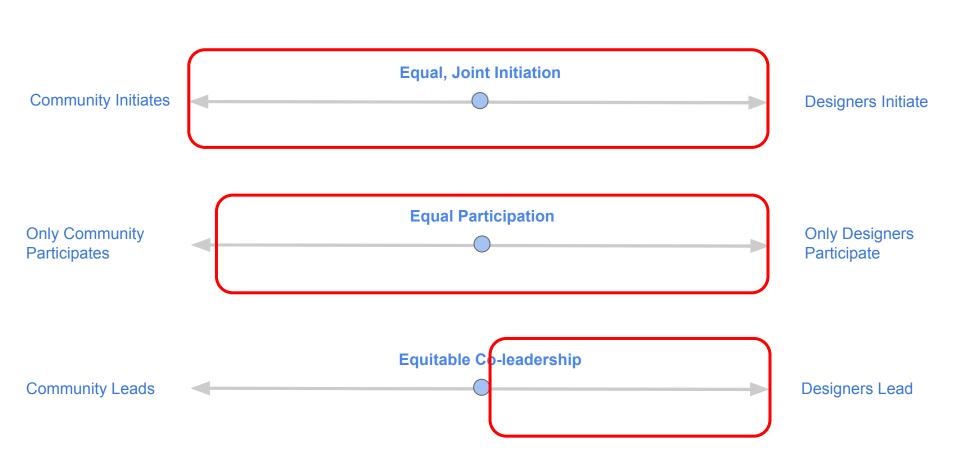
narratives around the artifacts.

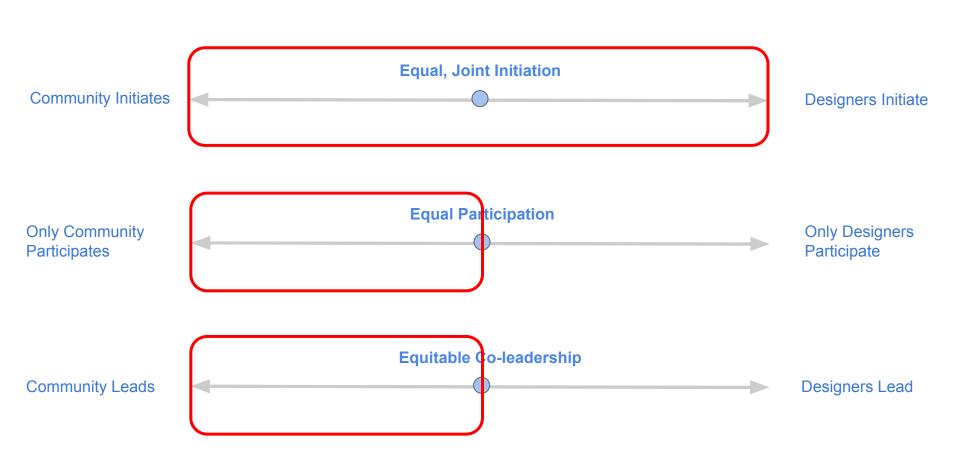
3. Community members own artifacts and

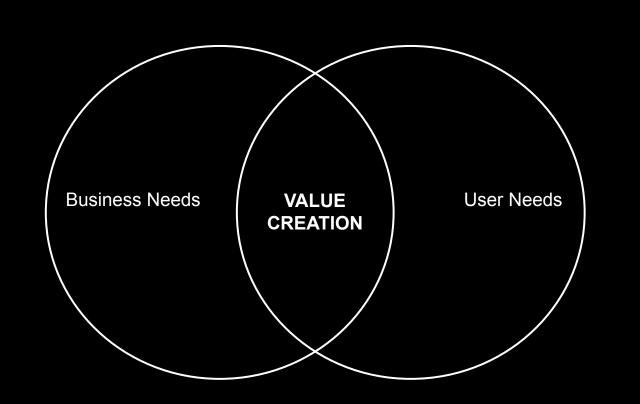


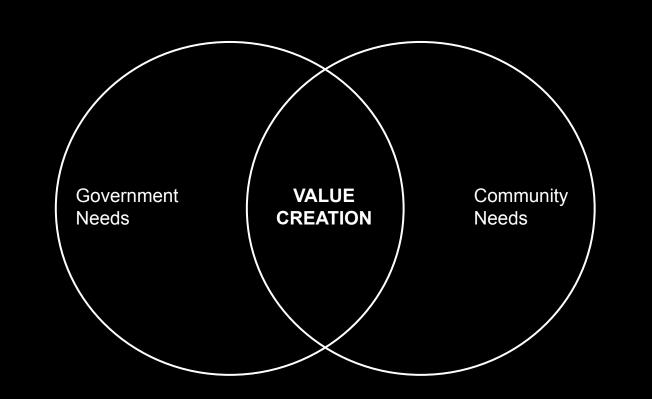


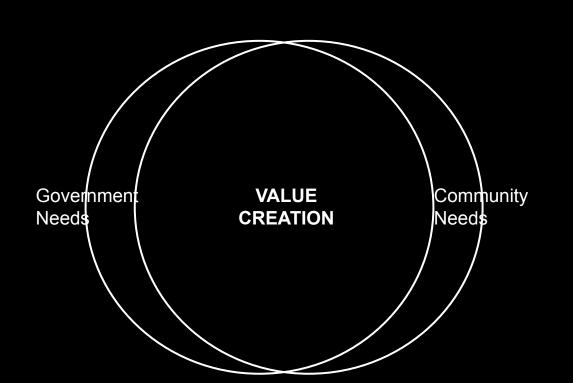












# Government Needs = Community Needs VALUE

**CREATION** 



Program Name	e-Basics	e-Professionals	Tech-Professionals
Track Name	Web Essentials	Online Professionals	Cloud Professionals HTML5 Developers
User Insight	"I want to learn how to browse the Internet and send email"	"I want to turn my online knowledge into practical, employable skills"	"I want to improve my technical knowledge with advanced courses"
Student Objective	A Google Web Academy e-Basics student is new to the Internet world and wants to know how to master the basics.	A Google Web Academy e-Professional student wants to gain online skills to know how to help businesses and/ or attract potential employers.	A Google Web Academy Tech-Professional student wants to learn how to harness their existing IT knowledge into specialist skills.
Characteristics	Little knowledge of the Internet Older demographic From less developed areas where the Internet is not widely used/ available Wants to use the Internet for basic functions - send email, Internet search	Students seeking professional employment     Marketers and Sales people     Business/ client focussed     Want to get the most out of the Internet for business	<ul> <li>Developers, IT students/ professionals</li> <li>Wants to get the most of their IT knowledge and skills</li> <li>HTML5: Basic knowledge of HTML, CSS and Javascript</li> <li>Cloud: Web savviness, familiarity with offline / online productivity tools</li> </ul>
Channel to Reach Target Audience	Offer in cyber cafes, CSCs (community service centers) and government programs	Offer as extra curriculum in universities and send professionals to teach (in addition to training centers)	Offer at chains of training centers (NIIT and similar)



What are the benefits of RPD?

**Benefits of Radical Participatory Design** 

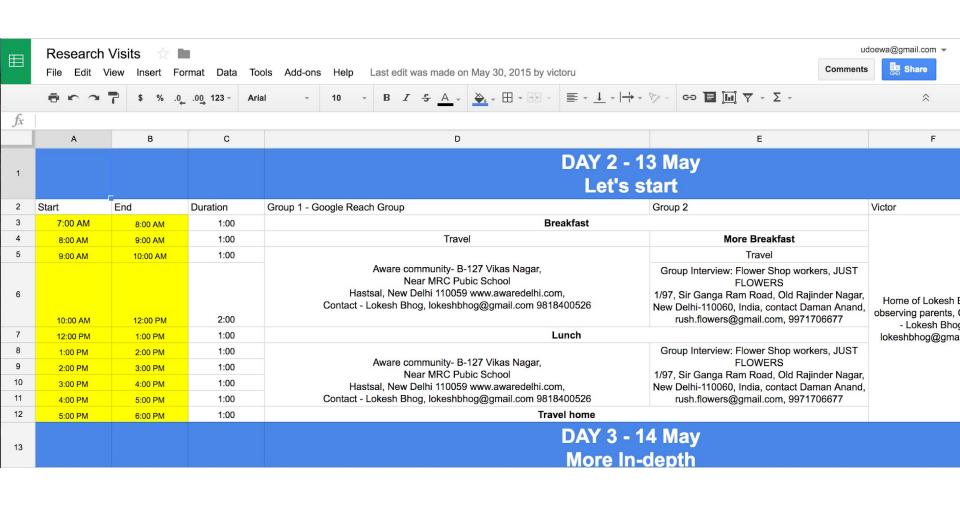
## 1: Inclusive Design

The community best knows how to recruit and include community members.

From Inclusive Design → Inclusive Team

From Inclusive Team → Inclusive Recruitment





## 2: Human-centered Design

The best way to center the design process on the community for whom you are designing is Radical Participatory Design.

From HCD → Society-centered Design

From HCD → Planet-centered Design





HIDE CAPTION  $\vee$ 

A web trainer who is taking part in Internet Saathi, the joint program of Alphabet, Inc.'s Google and local philanthropy Tata Trusts, in the village of Habibwala, in Rajastan, India, Sept. 28, 2016. PHOTO: GOOGLE

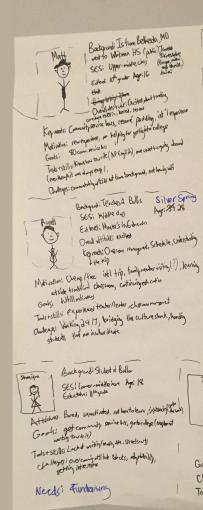
### **Benefits of Radical Participatory Design**

## 3: Empathy

Stop pursuing empathy. You won't find it.

- Intellectual empathy
- Emotional empathy
- Compassionate empathy





Backgord: From NE west to EL Happer Charter St. Laner-middle income App: 17 Education: 11th grader Keyneds international experience (now productional cologe prop (resure), Luatell
Metintini & Gods: Toolstskillsi Communication, Openniabeless, Every Takest Excitence

Challengs: Hearmand what will hately? Culture shock of the "Show le "kide and of

Attitude: Intiniented excited

Silver Spring

Ag: 34 28

Backgroud: Tender of Cesar Chanez Charles SES: will Age: 34 keyrodsi Harding trip layistics, teamwork, convicts fundraising Motivatura newskillset, intl experience, compressation

Tock + skills: Praction leaders hip Exprience + intil experience Chillegori Chiting group, teaching currinday kridging gays within

Attitude: existed, ~ tearful

respect file ten

Gods: Successful trip, no logistical Meal & problems, tendacciniculum moistoins apositive attack, of earning

Barand: Backgrand: From Woods Ark, OC Struct at Brke Mge: 17 Sts: upper-middle Mge: 17 · Traveledto Europe Resson

Education 12th grade Atticht: doen't care - parents sind I bottoge - "bottoge"

sightseeing. I want to hand at on my phone. Key Needs . Su sst hours 4 fun Goals: Get SSL, sightseeing

Challenges: Communicating W Kids from the other locality and Tods/skills. Some interrotional experience.

## 4: Trauma-responsive Design

The components of a trauma-informed approach are embedded in your process when the community is participating fully and fully leading.

- Safety
- Trustworthiness & transparency
- Peer support
- Collaboration & mutuality
- Empowerment, voice, and choice
- Cultural, historical, & gender issues



## **6 GUIDING PRINCIPLES** TO A TRAUMA-INFORMED APPROACH

The CDC's Office of Public Health Preparedness and Response (OPHPR), in collaboration with SAMHSA's National Center for Trauma-Informed Care (NCTIC), developed and led a new training for OPHPR employees about the role of trauma-informed care during public health emergencies. The training aimed to increase responder awareness of the impact that trauma can have in the communities where they work. Participants learned SAMHSA'S six principles that guide a trauma-informed approach, including:



Adopting a trauma-informed approach is not accomplished through any single particular technique or checklist. It requires constant attention, caring awareness, sensitivity, and possibly a cultural change at an organizational level. On-going internal organizational assessment and quality improvement, as well as engagement with community stakeholders, will help to imbed this approach which can be augmented with organizational development and practice improvement. The training provided by OPHPR and NCTIC was the first step for CDC to view emergency preparedness and response through a trauma-informed lens.



**Benefits of Radical Participatory Design** 

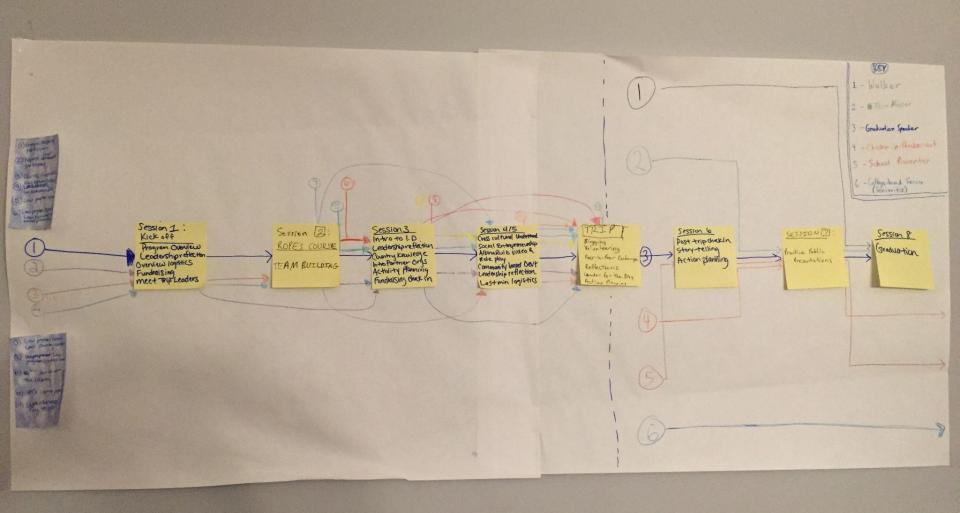
## 5: Pluriversal Design

Communities can define for themselves what is the good life.

From damage-centered design → desire-based design

Asset-based methodologies





What are the ethics of RPD?





International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship Vol. 11, No. 2, pp. 18-37, Fall 2016 ISSN 1555-9033

## Helping the Next 4 Billion Go Online Part I: Design Research for Digital Literacy Education

#### **Victor Udoewa**

Instructional Designer, Education Lead, Deputy Director of 18F Learn

Washington, DC 20006 victor.udoewa@gsa.gov

#### **Lokesh Bhog** Technology Specialist

NIIT Gurgaon, Haryana, India lokeshbhog@gmail.com

### Bhawana Prabhakar

Project Engineer, Developer Ericsson, Wipro Technologies Mayapuri, New Delhi, India bhawanaprabhakar@gmail.com

#### **Neil Mathew**

Graduate
Amity University
Uttar Pradesh, India
mathew.neil@gmail.com

#### Anuranjan Gupta Student

NIIT New Delhi 110087, India anuranjannet@gmail.com

### Saummya Kaushik

Postgraduate Student University of Auckland, Takapuna New Zealand kaushiksaummya@gmail.com

#### Louie Al-Hafidh

Customer Service Supervisor
Google Fiber
Charlotte, NC
louiea@google.com

#### Parivartika Patel

Quality Assurance Analyst Organization: ZS Associates Uttar Pradesh, India parivartika.patel@gmail.com

#### Lea Bauer

Managing Director
Tangram Lea & Lorenz Bauer GbR
San Francisco, CA 94115
lea.bauer@tangramfilm.com

#### Valentina Humar

Director of Innovation and Business Dev. GJ Comunicaciones Bogotá - Colombia International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship Vol. 12, No. 1, pp. 13-40, Spring 2017 ISSN 1555-9033

# Helping the Next 4 Billion Go Online Part II: Prototyping Solutions for Digital Literacy Education

#### Victor Udoewa

Deputy Director of 18F Learn Washington, DC 20006 <u>victor.udoewa@gsa.gov</u> \*Corresponding Author

#### **Neil Mathew**

Graduate
Amity University
Uttar Pradesh, India
mathew.neil@gmail.com

#### Anuranjan Gupta Student

NIIT New Delhi 110087, India anuranjannet@gmail.com

#### Lea Bauer

Head of German Markets Udemy San Francisco, CA 94107 Lea.bauer@udemy.com

### **Lokesh Bhog**

Technology Specialist NIIT Gurugram Haryana, India 122001 lokeshb@niit.com

#### Bhawana Prabhakar

Project Engineer
Wipro Technologies
Greater Noida, India 201308
bhawanaprabhakar@gmail.com

#### Parivartika Patel

Quality Assurance Analyst
ZS Associates
Pune, Maharashtra
parivartika.patel@gmail.com

#### Louie Al-Hafidh

Customer Service Supervisor Google Fiber Charlotte, NC louiea@google.com



Jindal Lead Management Trainee at Jindal Steel & Power Ltd. || IIM Alumnus

August 18, 2017, Victor was teacher

I taught Bhawana how to create web apps and front-end development focusing on HTML5, CSS3, and Javascript. I also worked with Bhawana on a human-centered design project on digital literacy for north and central India. In both cases, she was an excellent learner, developer, designer, and worker wi... See more



How do you evaluate an RPD process?









HIDE CAPTION  $\vee$ 

A web trainer who is taking part in Internet Saathi, the joint program of Alphabet, Inc.'s Google and local philanthropy Tata Trusts, in the village of Habibwala, in Rajastan, India, Sept. 28, 2016. PHOTO: GOOGLE







# Planet-centered Value Creation Law

In order to increase planet-centered design and planet-centered value creation, we mandate that companies conduct 75% of their design work through participatory design involving external users and customers.

Outside of community-led design projects, most participatory design processes initiated by a company or organization maintain or even strengthen power imbalances between the design organization and the community on whose purported behalf they are designing. We introduce the term radical participatory design to show how research and design processes can be truly participatory to the root or core. Instead of treating participatory design as a method, a way of conducting a method, or a methodology, we introduce radical participatory design as a meta-methodology, a way of doing any methodology. We explicitly define what participation means and compare and contrast design processes based on the amount of participation. We introduce "designer as community member" and "community member as designer and facilitator" models. Based on experience employing radical participatory design over many years, we provide guidelines for the meta-methodology of radical participatory design, tips for how best to employ it, pitfalls to avoid, and ways of overcoming barriers. Finally, we offer ways of evaluating the success of the radically participatory design process, related to the goals of participation.

#### SECTION ONE:

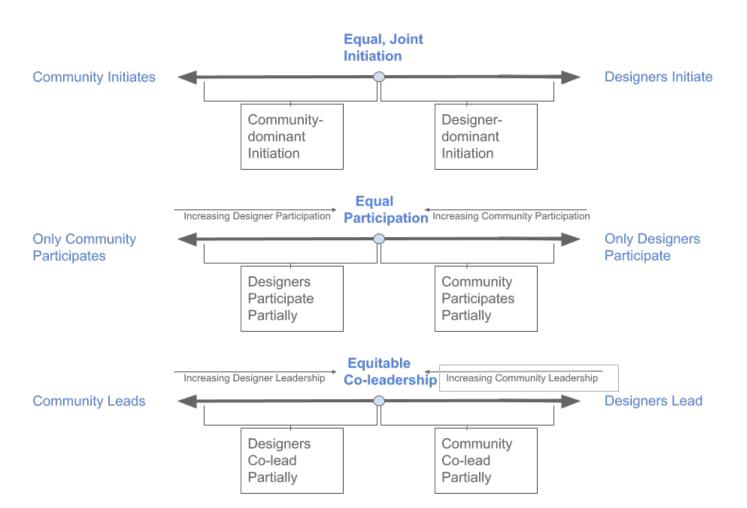
Participatory design processes are not new. Communities "unofficially" have used participatory design processes to solve community problems for millenia (Sanhoff 2011). Specifically, in western design practices of design, technology, and innovation companies, participatory design processes have increasingly become popular in the late twentieth century to today (Hartson & Pyla 2012, Hess & Pipek 2012, Sanhoff 2011). This trend is most demonstrated by the now thirty-year history of the Participatory Design Conference, from 1990 to 2020 (Simonsen 2020). Simultaneously, many issues, concerns, and problems have been raised about how participatory design is theorized, framed, defined, practiced, and evaluated (Kensing & Blomberg 1998, Robertson & Simonsen 2012, Frediani 2016).

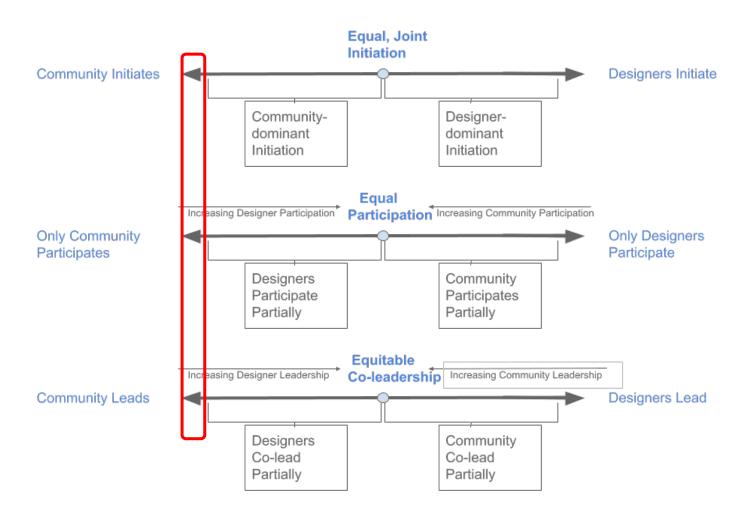
What is immediately evident, both from a literature review of participatory design and from conversations with other participatory designers, is that everyone in the participatory design community means something different when they use the term participatory design (Frauenberger et al. 2015, Halskov & Hansen 2015, Vines et al. 2013). The initial excitement of finding someone or some group who is using the same participatory process, gives way to confusion or disappointment because the other person or group actually is using a different process. This confusion stems from no definitive definition of what participatory design is. Researchers and designers use the term participatory design to signify different levels of politics in the design process, different groups of people, different methods, different goals of participation, and different amounts and configurations of participation (Halskov & Hansen 2015, Fischer et al. 2021).

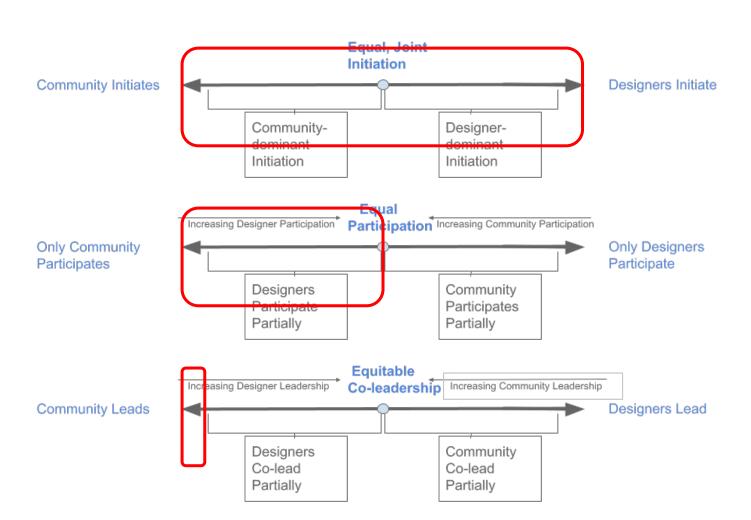
There are researchers and designers who use the term participatory design to signify the participation of internal or external stakeholders (Bowen et al. 2013, Handfield et al. 1999). Others use the term to mean the community who will use the product or service (DiSalvo et al. 2012, DiSalvo et al. 2017). Still others use the term to mean all internal and external stakeholders including community members and internal organizational stakeholders and executives (Reddy et al. 2019, Vink et al. 2008). In this paper, we focus participatory design on the participation of the people for whom or on whose behalf we are designing—the community. It is their expertise that should drive the process.

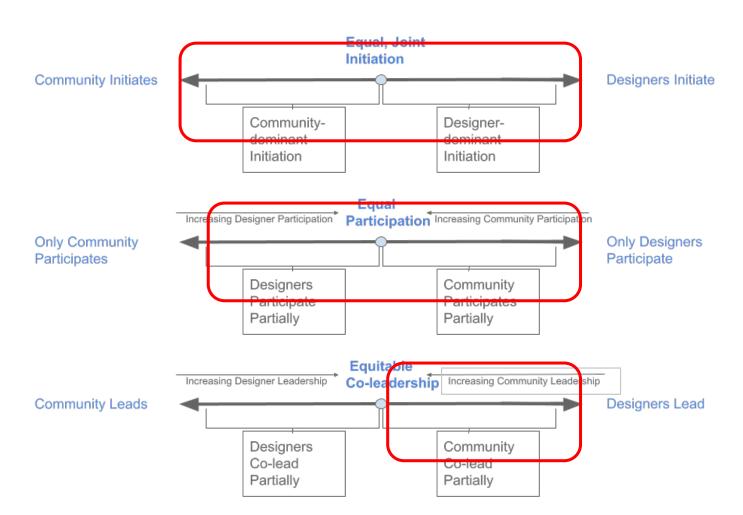


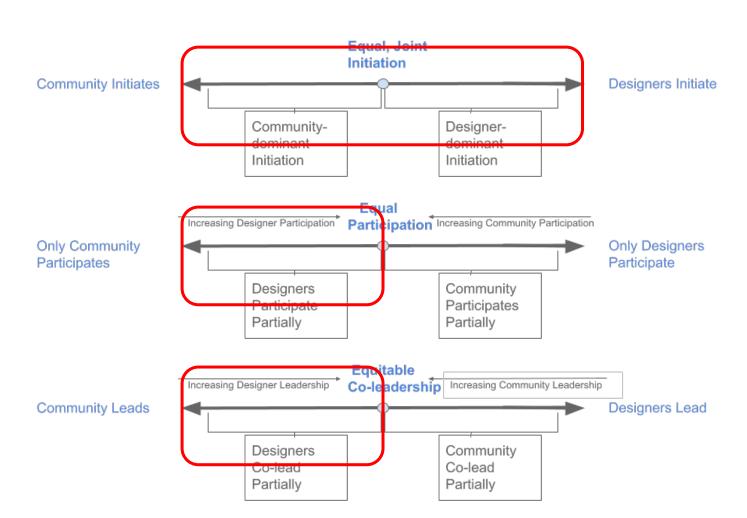
# **APPENDIX**



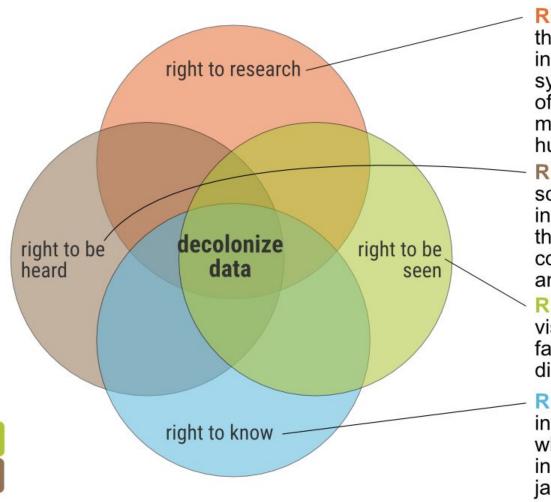








In 2052, most government agencies have a PD unit that addresses the future of work by employing the public in RPD projects. Citizens, immigrants, and refugees rotate in and out of the PD units. Only 10% of private companies had PD units until one gov RPD project created a law mandating increased planet-centered value creation through PD units in private companies.



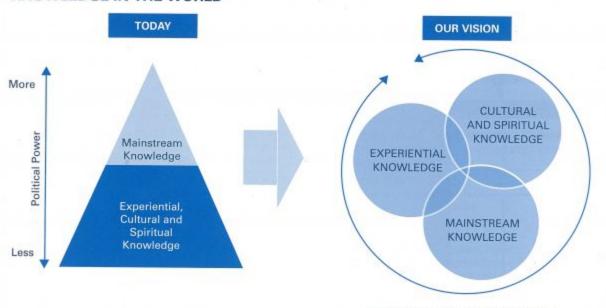
Right to Research: the right to the tools through which any individual or group can systematically increase that stock of knowledge which they consider most vital to their survival as human beings.

Right To Be Heard: to use social science tools -- such as surveys, interviews, mapping -- to package their knowledge into data to convey back to their communities and chosen decision-makers.

Right To Be Seen: the right to be visible, represented, and treated fairly in the collection, dissemination, and use of data.

Right To Know: to access information beyond our reach, whether that knowledge is inaccessible due to cost, technical jargon, or other barriers.

#### KNOWLEDGE IN THE WORLD



Equal political power and legitimacy

Design mediates so much of our realities and has tremendous impact on our lives, yet very few of us participate in design processes. In particular, the people who are most adversely affected by design decisions — about visual culture, new technologies, the planning of our communities, or the structure of our political and economic systems — tend to have the least influence on those decisions and how they are made.

Design justice rethinks design processes, centers people who are normally marginalized by design, and uses collaborative, creative practices to address the deepest challenges our communities face.

## 1: Liberate

We use design to **sustain**, **heal**, and **empower** our communities, as well as to seek liberation from exploitative and oppressive systems.

We focus on social ills and work on liberation before reconciliation.

We use a systems approach.



# 2: Center the Community

We center the voices of those who are directly impacted by the outcomes of the design process.

Agile processes allows the customer to harness change as a competitive advantage.

Being able to effectively change the product according to customer needs increases customer satisfaction.



# 3: Prioritize the Community

We prioritize design's impact on the community over the intentions of the designer.

The community leads the design.

The health and wellness of the community is paramount.



## 4: Seek Health

We view change as emergent from an accountable, accessible, and collaborative process, rather than as a point at the end of a process.

We focus on the health of a system and do not seek a mission-accomplished approach.

We map and remap systems knowing our interventions change the system.



## **5: Facilitate**

We see the role of the **designer as a** facilitator rather than an expert.

The experts are the community. They have the lived experience.

Designers only know a process. They are facilitators.



## 6: Listen to the Community

We believe that everyone is an expert based on their own lived experience, and that we all have unique and brilliant contributions to bring to a design process.

The experts are the community. They have the lived experience.

Value and prioritize indigenous knowledge, experiential knowledge, and contextual knowledge.



# 7: Share Knowledge

We share design knowledge and tools with our communities.

Communities should have access to information. We break down barriers to access to knowledge.

Communities can use the information to better themselves. Knowledge is power.



## 8: Be Sustainable

We work towards **sustainable**, **community-led and -controlled** outcomes.

We create interventions and build in ways that reinforce the human rights of all people.

We design, research, and build ethically, inclusively, and equitably.



# 9: Improve Our Ecology

We work towards **non-exploitative solutions** that reconnect us to the earth and to each other.

We create interventions and build in ways that reinforce improved health of our ecology.

We design, research, and build sustainably.



## 10: Use Positive Deviance

Before seeking new design solutions, we look for what is already working at the community level. We honor and uplift traditional, indigenous, and local knowledge and practices.

We use a positive deviance methodology.

We practice a systems approach and amplify positive system dynamics.

