

Developing a process system for the craft makers in the United Kingdom

Anupa Dasgupta

Tutor: Dr. Hena Ali Naeem Khan

MA Service Design Experience and Innovation

Major project thesis

London College of Communication

University of Arts of London

December 2017

Dedication

to the craft makers of the United Kingdom and my dad



Above: Stack of unfired pots, (2017)

The experience of celebrating the journey of a craft-maker, acutely carving impressions on his/her chosen surface is one of the main reasons that this project has taken place.

Craftsmanship predominantly focuses on the relationship between the tool and its maker. There is a inbuilt sense of process and design that intrinsically develops because of this natural connection. Many of these associations take form in the manifested craftwork, tutor-student liaisons, region clusters and more.

Such dynamics develop successes, challenges and even gaps because creativity or artistry at times, is not a seamless exercise.

The aim of this report is to investigate and understand how the connections of craft systems in the United Kingdom unfold, in references to it users, processes, narratives, and system flows. Generate key insights that will support the researched topics from past, present and probable future to eventually build a service solution that encompasses the need and requirement of the end users.

"As you will learn, craft is not about the endgame; its about the process."

Ramona Barry and Rebecca Jobson (2015)

1

Background 1. Meaning making 6 2. Definition of Craft 10 3. Positioning of the Maker 12 14 4. Statement of Intent 15 5. Objective 6. Service design and craft 15 18 7. Desk research 8. Primary research 20 9. Gaps and Challenges 21

2a

The approach: Design Methodology 26 Design Phases 27 Discover 28 1. Primary Data Map 30 2. Shadowing a session 34 3. Co-discovery Activity 36 4. Insights 39

Empathize 40 1. Stakeholders Map 41 2. Business Canvas Model 42 3. S.W.O.T 4. Persona: Traditionalist 46 4. Persona: Contemporary 48 5. How might we? 50 6. Role playing 51 7. Co discovery tool set 52 8. Design Criteria 54 9. Structure co discovery 55

10.Participants: Key Insights 57

______ Defin

11. Insights

64
65
68
70
78
79
80
81
82
83
84

d

Ideate	85
1.Service situations scenario	86
2. Service Concept	87
3. Rationale	89
4. Requirements	88
5. USPS	90
6. Basic Ideas	91
7. Scenarios	92
8. Skate holder's Map	94
9. Service Blueprint	
10. Relationship Mapping	95
11. Personas	97
12. Personas	99
13. Service Journey	
14.Business Canvas Model	100
15.Pre-post service model	102
16. Benchmarking	101
17. Outcome	105
18. The service	107
19. Cards	110
20. User activity encounter points	113
21. How does it work	118
22. User Flow chart: Digital Toolkit	120
23. Digital Toolkit	122
24. User Flow chart: Digital	126
25. Digital Toolkit	128

C

Prototype	134
1.Paper Prototyping	135
2.User Evaluation	136

f

Deliver	139
1.Final Outcome	140
2.Measure	143
3.Evalution	144
4.Impact	145
5.Finance	145
6. 5. Scalability and Sustainability	146

As a designer 148
Conclusion 149
Acknowledgment 150
Bibliography 151
Appendix 155



-Background

1. Meaning making

Craftsmanship is born of skill, craftsmanship and value and dates back centuries. "Before the age of science and modern industry, crafts used to spring out of the hearts and hands of a man." (Yanagi, 2013, p.95). Unlike mass-produced pieces, a craft artifact is a delicate singular reproduction and is a representation of how the dexterity of the hand and the coordination of the eye. It works in single or small batches. Where does this relationship of dexterity and artifact stem from?

The responsibility lies with this interaction with the crafts maker, an individual who skillfully performs the act of creating hand-built objects. Richard Sennett (2013, p.20)beautifully phrases it as saying "the craftsman represents the special human condition of being engaged". The crafted object is about the crafts maker's technique and tool he/she uses.



Fig 1: System structure of a craft industry.

While being laced with a traditional connotation, it has progressively evolved. It has brought about innovation through skills adaption with technology, physical processes, with hybrid surfaces and final outcomes of tactile and non tactile surfaces.

Icon (2017) in an interview with Annie Warburton, (Creative director of the Crafts Council), shares her thoughts of John Harrison, a carpenter and clockmaker, autodidact by nature, managed to create a system in which the longitude at sea would be measured. In the same breath, she discusses that the textural craft innovations have made this industry into hybrid cross connected space. She says that craft has great potential in making small scale innovations in to time breaking large innovations.

Moreover, craft, in the present context, has turned from the surface artistry focused to multi disciplinary loop where technology, human centered interactions and sustainable systems have been key factors. What are the features of this? According to Masso, G. (2017), that creative industry is estimated at 91.8 billions with 14.6 percent devoted to the crafts sector in the year 2017. Research by the Government of the United kingdom estimated the industry to have 84.1 billion in yet we will see that it is faced with resistance and shortcomings.

To discover this insights, we have to see the core form and how it has developed

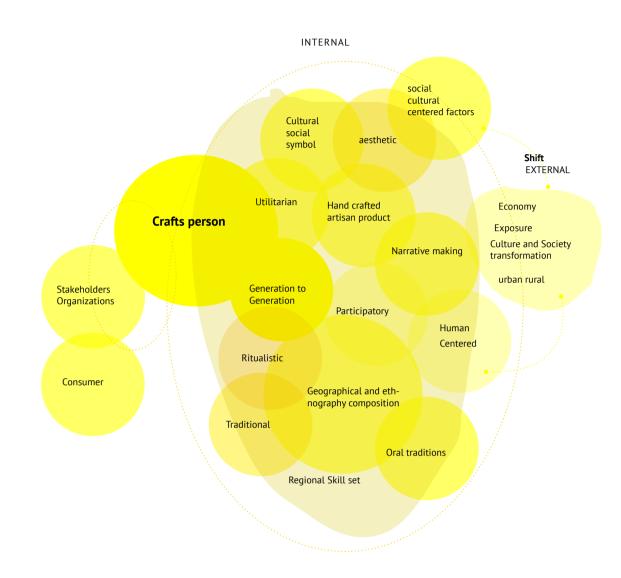


Fig 2: System structure of a craft industry

The map also shows ethos of what craft is about through the internal and external requirements. Adamson (2007) describes craft as the executed action of making and not about the categorizations, its makers or the organizations. He builds the ideas of craft being a process or an ideology.



Above: Stack of unfired pots, (2017)

8

Crafts maker (individual set up) Private companies Organizations-Cooperative societies

Creative execution

Line of requirement



Geographical positioning

The location and placement of the craft at a specific region or country.



Resource

Essentials needed by the crafts maker - e.g physical equipment, space, people, skills sets and so forth.



Tools and technique

Methods in which the craft executed and the equipment used to complete the task.



Craft clusters of similar crafts are normally found in the same region. Groups of makers using the similar natural resources tend to migrate to the same place.



Time

The time estimated and the actual time of the final execution might be same or different. Affects on other aspects like resources and management etc.



Traditional vs contemporary

Traditional are more inclined hand made techniques and have a generational lineage while contemporary are more innovative and trained academically.



Human Resources

Human centered activities are prevalent in the crafts sector. Whether its collaborating with other maker or having apprentices.



Craft executions

The physical manifestation of the crafted object that can be made as a single or multiple artwork



Tacit learning

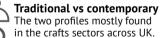
The learning by experience and primary observation. It is about seeing-learning and creating. (Sanders and stappers 2014).

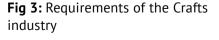




Geographical positioning

The Highlands- east and south Midlands and south is known for Craft. Nottingham-Edinburgh, London and Devon can be called main spots along with others. The west midlands has a qva of 19.8 percent in the year 2017.





These are the requirements of the crafts industry in the United kingdom focusing on the important aspects.

The information used from various Crafts council reports and A qualifications strategy for the creative and cultural industries report. See Bibliography.

2. Definition of Craft

The Structure of Craft Forms There are various definitions:

- 1. **Extinct crafts** belongs to the category that is not executed or performed . According to the Heritage crafts Association, four crafts forms have ceased its non existence due to the void in practicing craftspeople. Due to death or lack of interest and lack of demand, the crafts falling under this sector are cricket ball making, gold beating, lacrosse stick making and sieve and riddle making.
- 2. **Endangered crafts** are on the borderline examples and have the possibility of extinction due to the same reasons mentioned above. The viability of these crafts are low which hampers their longevity. To name a few such as letter cutting, passementerie, bicycle making, folding knife making and more.
- 3. **Traditional crafts** are those which have been born out of heritage status and are generational approach. There is a transfer of skill which is semi manual or manual. The market has accepted its presence and future presence is not at stake. These would be glass making, pottery, book binding, medal making and more.
- 4. **Contemporary** bridges the link between new age and traditional. Many crafts are multi disciplinary in its process and approach. The maker themselves are advocates of trans technology and manual production.

The crafts are either practiced by individuals or clusters of people.

The change has been due to the image positioning of craft from the pas to the present. Sennett (2008) talks about the change in terms environment, behaviour and practices. This progressive and alternating position lies in the value change and different priorities.

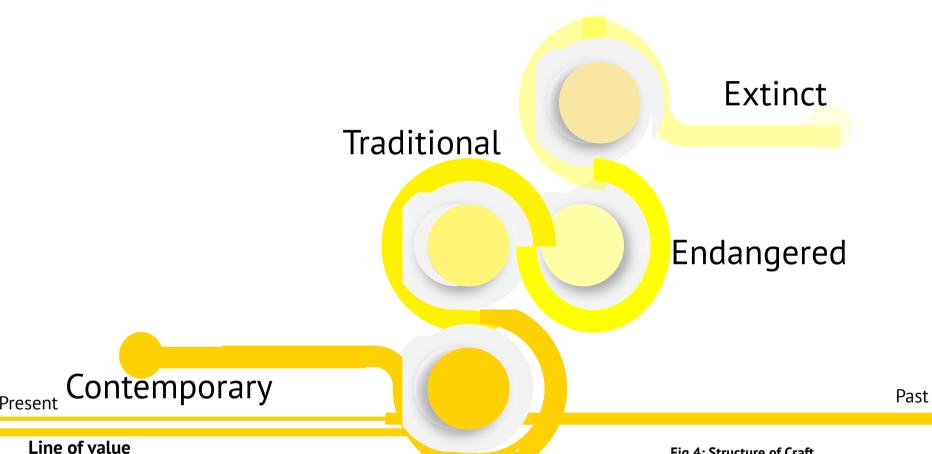
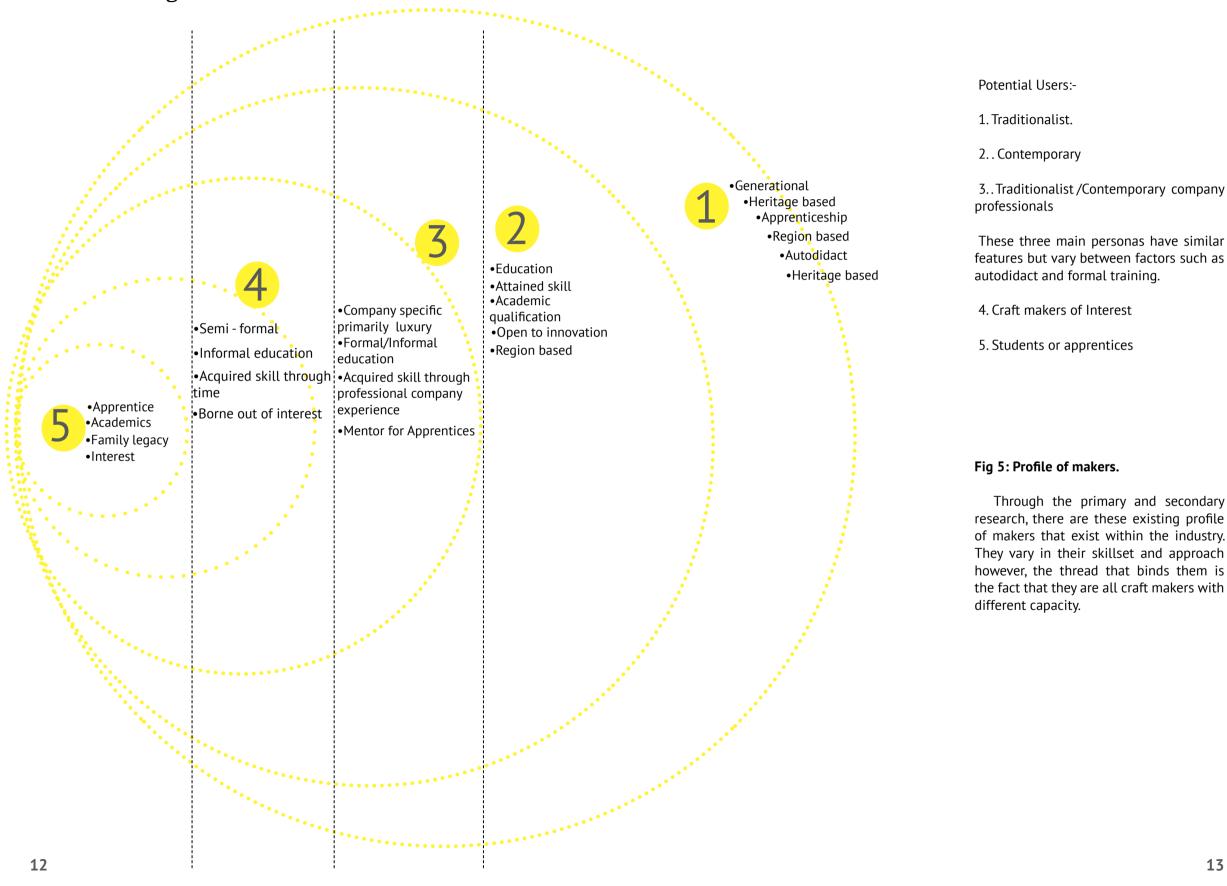


Fig 4: Structure of Craft

This shows how the craft form exists from the past to the present. The faded color of yellow is representative of its not existent. The stronger shade is what the form of today is today. The line of value shows that there is a strong presence in the past but as time progresses, the value forks in to this dual representation of strong and thin.

3. Positioning of the maker



4. Statement of Intent

- 1. By exploring these relational dynamics through their skill sets, geographical origins, resources and skill sharing abilities, the project aims to help the craft maker to emerge as an informed design and cultural thinker.
- 2. By understanding the relationship between haptic and dexterity which is one of the key aspects of craft makers that govern the way maker explores their success and barriers.
- 3. By exploring the what are the key resource requirement and behavioral practices of a maker that will impact the creative process.
- 4. By exploring what are the key methods and processes of makers that enable the maker to be multidimensional and robust not only in their craft executions but in their management and operational methods.
- 5. By investigating what is the journey of developmental growth for a maker. Is it iterative, innovative or gradual?
- 6. By looking at the decision making attributes of a craft that this about their iterative and situational practices design productions
- 7. By focusing on the shift in the rural and urban dynamics.

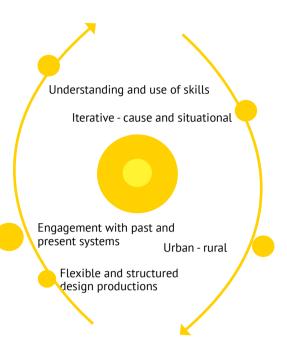


Fig 6: Model which shows how the intent will work

This is a circular model that shows the variables that are needed as an intent. They revolve in a cyclic motion to show the continuity and relevance at all given times.

5. Objective

- 1. To identify the various roles of the craft makers and how does it impact each other and the system.
- 2. To understand what are the knowledge systems within this industry, in relation to the design thinking in craft and service design.
- 3. To assess the nature of value, awareness and appreciation craft has in society.
- 4. To redefine how process of makers can be interwoven with service design processes

6. Service design and craft

The "act of physical execution" is about how your body interacts with the environment and its peripheral resources and other assets. please refer to page.

In a situation such as this, it is very important to see service design from the point of empathy because the system is about crafts person's emotions, behaviors and attitudes. Stickdorn in Verschoor (2015) says that empathy is what design about. It allows the designer to gage the subject from a qualitative fashion but also have the ability to see the process from a pragmatic point of view.

Service design allows the designer to be process orientated, co creative, user centered, holistic and evidence related, Stickdorn and Schneider (2011).

Gordon Childe in Smith (1981) spoke about how equipment encompasses the overall experience of the past. I feel that designer to acknowledge the existing process to build for the future.

This kind of overlay of journeys allows the designer to build experiences from all angles for example:- crafts person and process, crafts person and community, crafts person and innovation and technology. Newbury and Farnham (2013) will aid the project to see the stages in a forward and backward manner.

This is critical again because the opportunities and gaps can be identified when the project approach at each stage and can be co related to get better insight.



7. Desk research

The secondary research allowed me to sense make of the context that I have created so far.

The main points started with the value and appreciation of craft was at a stretch. Educational system in the craft sector was going through a difficult place.

Number of students studying craft in 2009/10.

57860

The regions which had highest percentage of apprenticeships were where makers was able to spend time and resource to train the newer generation. The value of tacit knowledge banks a main cause why students will continue this kind of industry.

320x+

Highest number of craft apprenticeships found are in the North west, east Midlands and Yorkshire.

The workforce is at low increase due to the stagnant interest of the youth who are not willingly to join.

> 9,000 2015 -7,000

Employment figures.



The 83 % population of makers would like to increase production but demand is low. The production is very specific to the supply and demand. The need to create iterate processes for the creative uplift ment does not look like an immediate requirement.

Halper and Douglas (2009) argue that viability of the craftsman is due to lack of sales and the education of crafts being questionable. Workshops are being shut down and practical

46% under £10,000 per annum

This is creating cloud of independent makers

70%

Work from home. Infrastructure disadvantage: 88%

Nesta says that 88 percentage are individual makers 25,000 (12%) to a total of 234,600 by 2022.

Anticipated growth in the craft industry.

Given the past research, there is a fair amount of progress and innovation. Briggs (2016) said that craft has over the years become more polished and financial gain has impacted the economy in a larger way.

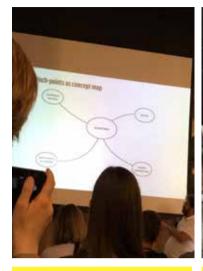
84.1 billion pounds of revenue generation in 2016

Financially not viable at times.

There is a section of makers who have been able to create value for the labor centric man hours for the price they expect, The value of experience and material is always at debate with the consumers,

The meaning of craft is at a verge of change Greenless (2016) says that craft focuses on specialized meanings of craft artifacts. They have left the realm of "hipster"

8. Primary research







Burberry inspired by Henry Moore - the legendary design house's work was displayed as an exhibition. This was a great way to see how hand crafted objectives are seen in a story telling context. Henry Moore's work inspired the forms of the clothes which were hand stitched and constructed.



Craft Central fair: Craft makers with different experiences sold their products at a commercial set. Story telling. Semi Manual. A few academically taught. Collaboration is not easy. Lesser students to teach. "You have to find your spot" as one of the craft makers say. Craft fairs are good. Some do not like the commercial of it. Business abilities are a trial and error.



The Design museum has a very educational section on the craftsmanship of artifacts. The interactive experience of engaging the users to the process is through the tools, and objects used in the craft itself.



Design frontiers, an exhibition at the London design week by the craft maker Sebastian Cox on the exploration on developing furniture through the use of fungus. The installation of the final outcome and its story was well put together by displaying the entire journey of execution from raw material to object.



Azrak Block Printing Show.
Abdul Khatri, a visiting maker in London - Craft is getting appreciation. Still low. The workshops have to be 3d and not textual. Students have less interest unless it is a family business. If craft is marketed with a trendy tag of organic and natural, it does well in London.

9. Gaps and Challenges

- Lack of skill transfer There is no transmission of skill within generations, there is a disengagement or not enough recruits.
- The aging workforce and the lack of new recruits- leading to the extinction or endangered crafts.
- The uniqueness and value of a **craft is not being promoted properly.**Authenticity questioned at times.
- The emphasis given on design rather than technique now.
- The lack of apprentices and opportunities to be mentored by senior craft makers.
- The poor networking facilities amongst the makers.
- Lesser knowledge of business needs.
- Mass manufactured products gaining appreciation due to comfort of price and availability.
- **Difficult commissioning process** and opportunities.
- Funding availability is limited.

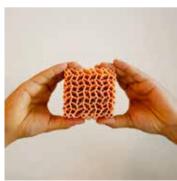
9. Case Studies



1. The adopt a Potter scheme in 2009 by Lisa Hammond, funded apprenticeships which allows students to learn and create with mentor potters. This programs encourages the skill transfer between various levels of potters, builds more value within the "potter" community and generates constant exploration of



2. **Sarat Babu-** the founder of Betatype, concentrates on creating and developing artifacts and products that infuse craft practices and technology. This has worked fairly well for the medical industry. Their forte lies in creating man-made tissue alternates. These small scale innovations turned to economically viable companies.



3. Oluwaseyi Sosanya uses the alternated version of the traditional weaving technique with 3d technology to develop flexible surfaces. Dasqupta (2017) 22



00 51,297 views

floriangadsby I've just updated my online shop with a new collection of work, it includes a number of bowls such as that being made in this short video, which might sadly be the last for a while. I recommend turning on the sound to witness a very satisfying clay slap at the very beginning.

4. Florian Gasby - a successful ceramist whose work is displayed on social media for viewer ship and sake. He uses detailed descriptives texts and videos to formulate a cohesive narrative for his viewers on his processes, products. This brings value for the potential buyers and builds a community for his work.



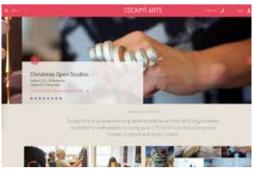
Clockwise: Screen shot of Lisa Hammond and student(2010). Screen shot of Florian gabsy's instagram page(2017). 3d weaving, Dezeen (2014).





3. Beazley Designs of the Year 2017 had some very interesting exhibits. The Adaptive Manufacturing collection by Sander Wassink and Olivier van Herpt which was inspired by various tactile surfaces produced by nature. By using 3d printing processes, they created a variety of ceramic and clay products which retained the handmade artisanal quality but was produced electronically. This bridge between the handmade creation and technological advancement is creating an alternative future understanding and value for handmade products.

The second image is Nendo who re-contextualized ordinary products such as bamboo baskets into backrests for furniture items. The contrast of using conventional process with an contemporary designed product is innovative.



4. Cockpits empowers makers to full their workmanship journeys by aiding them through creative and executional journeys.



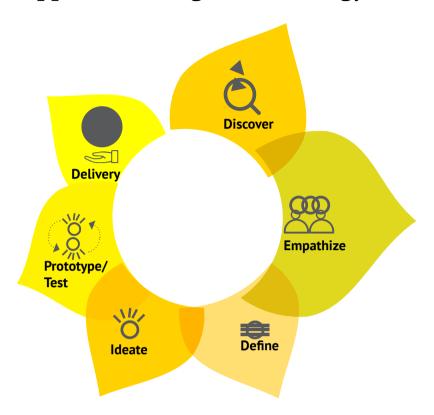
5. The design museum held an exhibition called "Breathing Colour" by Hella Jongerius which was on how colour and form react to the different times of a day. Craft has an in-depth relation with form and colour and this was a great way of understanding that.

Clockwise: Sander Wassink and Olivier van Herpt "Adaptive weaving" (2016).: Screen shot of Cockpits wesbite (2017). Ehibition "Breathing Colour" by Hella Jongerius. Design Musuem (2017). Basket back rests by Nendo (2016).



The approach

The approach: Design Methodology



This report looks at this project from different lenses. Inspired by the double diamond and The d.school's (Hasso Plattner Institute of Design at Stanford) User-Centered Prototype-Driven Design Process in Fig. 5 This combination in process and method allows me to amalgamate a structured and dynamic model like the double diamond with empathic and human centered approach.

The approach is divided into various stages: discover, empathy, define, ideate, prototype,test and deliver. There are overlaps as each stage merges into the next while you re-using methods from the previous. This creates repetitions between stages causing tools to reappear causing a cyclic pattern.

My area of focus looks at human values, connections and creation. Therefore, I wanted a process that would allow be to empathize, question and create autonomously so I could merge the existing models to experiment with.

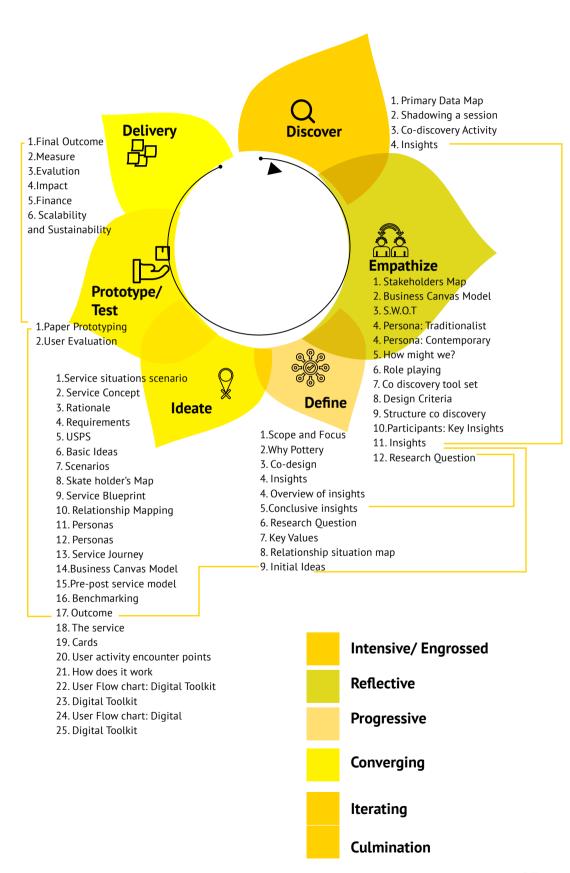
One of the key aspects that the research methods used in the phases are complimentary to each other. The merging of qualitative and qualitative data are supportive.

Flick (2009), in his model of called Levels of Triangulation of qualitative and quantitative research discuss how qualitative and qualitative data merge into each other. They function without any discord, resulting to homogeneous insight mapping.

I have aimed to adhere this approach because this layered process can help validate the research, test and delivery. The key aspect was being able to empathise and define data for a subject, as said early, is very human centered.

Fig 5: Model Inspired by Design Council's the Double diamond and The d.school's (Hasso Plattner Institute of Design at Stanford) User-Centered Prototype-Driven Design Process.

Design Phases







Objectives.

- Pin point the primary, secondary and tertiary stakeholders with this
- Identifying the functionality and requirement craft has in todays
- Building a basis of the challenges and gaps which the craft makers

The discovery phase is layering the first brick for the project. The phase is about gathering and devise research through quantitative (desk top research and statistics and qualitative system. collections (interviews, observations, primary data and discovery sessions). Manzini (2015) believes that research allows the following stages to develop through the data that has context. been created.

The decision to collect data relevant data depends on identifying and pinpointing are facing - pains and gains. the necessary existing and new areas of opportunity.,Laurel (2013).

> Developing ways to understand who are the future key stakeholders can be done through gathering insights, seeking inspiration, generating an understanding on your topic and establishing our user groups.

Tools and Methods

- 1. Primary Data Map
- 2. Shadowing a session
- 3. Co-discovery Activity
- 4. Insights



Above: Display of unstitched but designed jacket.



1. Primary Data Map

Interview Insight

Design Insight

Users: To what a

smart watch: "Its a

toy" "Its about the

workmanship"

accuracy of time but the

User quote

Subject Visual Evidence Interview Quote Insight

Luxury Watch company

Bespoke Luxury Brand Watching Makers







This branch - Assemble and Dismantle watches.

Precision and accuracy of skill - Makers are trained constantly with yearly training programs and workshops.

Makes only 25,000 a year. They are designed as per trend of customer needs and the association to their brand.

User: Collectors, well established professionals to buyers with finance.

There is a constant need to change. To engage customers with narrative of the watch.

Story telling- associative design practice. Narrative around the product.

Adhering to their basic principles about what the watch company stands for.

Value Identification and appreciation are core points.

Watcher Maker:

Watcher Maker 3 years of experience

"Try and work on small things. It challenges me"

"I have my circle of watch makers. We are today from college."

Premium Luxury Brand

For menswear and products.





Practical ability is crucial. Courses have changed.

Design centric approach- not technical and process based.

"You have to understand what you make".

Pattern Maker:

18 yrs in profession - Maker and Mentor for apprentice

Book Binder, 22 yrs of

"The focus in on design and the procedure"

"We need adaption and innovation"

Luxury **Stationary** products

Demonstration for the London craft week, 2017

30

experience.





have making over the past 22 years and now I teach.

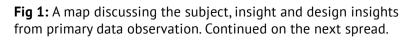
Same company principle but the categories and colour changes with time

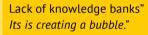
Mass customisation is making it difficult.

Practicing and imparting knowledge is also safeguarding skill. generational transfer.

"You need to get the technique right"

The technique is same but the customer's designs are different.





Mass customization.

Lack of transfer of skill.

People are retiring. Shortage of teaching stuff. Learn through execution and teaching.

Necessity for skill sharing practices and knowledge creation hubs for the students. Teaching - one on one - there is an invest and the student leaves. This is cyclic. There is a benefit.

There is customisation over the years on products. The style or the pattern change.

Time and production have a huge role to play. The workmanship is constantly renewed by training.





Was trained through academics. Now professionally practicing. Appreciation towards finer things now.

"Personalisation is something very important now".

The need for personalisation and specificity is occurring often. The value of handmade is increasing due to the excess of mass production. Is it ready choice.

Calligrapher:

New in the profession.

Demonstration for the London craft week, 2017



Her: "Would you like your name written."

Me: This is the experience."

The texture of Craft Conference 2017 - The Heritage Craft Association: Speakers









Kaffee **Faseett** Textile

The more you work, the faster you work.

Design — Record — Redesign Execution —— Prototype——Redesign **Design Process**

Commissioning is a important process. Needs to be more organised.

Restoration of process and re visiting. Skill acknowledgment

"The whole idea of making and

camaraderie of making things."

Appreciates the value and authenticity of craft. Transfer of Knowledge is very important.

Usage and availability of resources.

No use of technology.

One unique process - excel point - like colour making.

"We need adaption and innovation"

Designer

Inspiration ———Storage —— Technique ——Skill Sharing Important in Craft Commissioning Has the process of years and how?

Traditional technique design changed over the vs global discipline and trend.

Share — Skill

Transfer of hap-tic skill.

Genevieve

Sioka

Trust

National

Craft is multidisciplinary -

Educational to vocational. Future>Circular economy>Disruptive knowledge system>

authenticity>customisation> Skill retainer ship -transfer>resource>storage

"The window before the cheap and accessible power."

"The illiteracy of power in the lack of crafts"

Draw on resources locally for literacy of power.

Dr. Alex Langlands Archaeologist Socio- economic framing Execution of craft.

Knowledge structuring and evidencing structure. Importance to time and resourcing of materials.

Mass customization and excess consumption of products.

Region specific resources.

Gender of roles: early the

biological reasons - led to

a certain demographic in

health care.

Raise the profile of crafts maker.

Value given to the experience of craft. The power of story telling should be enhanced.

Business Models need to be increased to build more feasibility of economics.

Pair + maker materials.

Mentor skills needed.

"Putting a face > place in craft"

Greta **Bertnam** Trustee of HCA

Assess and identify the various kinds of craft.

Viability of existences of craft is changing

There is no definite High intensity distinction between craft skills traditional and are becoming contemporary extinct.

Resource procurement is difficult

Knowledge Monitoring Loss of Empathy

Categorization

Issue Mapping

Lisa Hammond

Potter Founder of Clay College Stoke

32

Skill sharing and education The exchange of are key aspects in craft

Founded the "Adopt a Potter" for her apprentices

information leads to better execution and management.

Infrastructure - education and exchange of information = sustainability



2. Shadowing a session

The technique to shadowing Minberg (1970) in Czarniawska-Joerges (2013) helped me to discover new, specific insights and questions by shadowing a maker in real life craft experience.

Questions:

- 1. What is the most effective way for a craft maker to function?
- 2. How can use my work spaces become a composite center for knowledge bank sharing?
- 3. What are the most key resources required?
- 4. What is my behavioral pattern?

Clockwise: Pottery equipment, Maker with student in an executional process and maker molding clay.

Next page: Cleaning technique. Raw

finished pots.



Craft itself is a heavily iterative process. Manual execution leads to constant physical testing. Self intended and semi structured processes are always something the participant is doing.

She uses her spare time to practice a lot to build her collection or devise classes.



The workspace itself is a visual knowledge band which can be used for constant documentation.



Ongoing collaboration and knowledge sharing is a constant and prevalent process. There is a need to make this relationship more effective and meaningful.

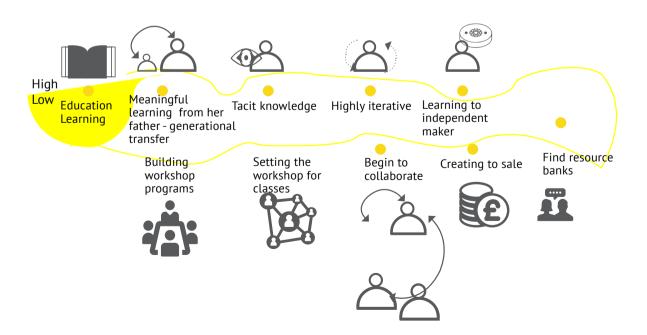


Education needs to enhanced and schools needs to take a more progressive attitude towards craft.

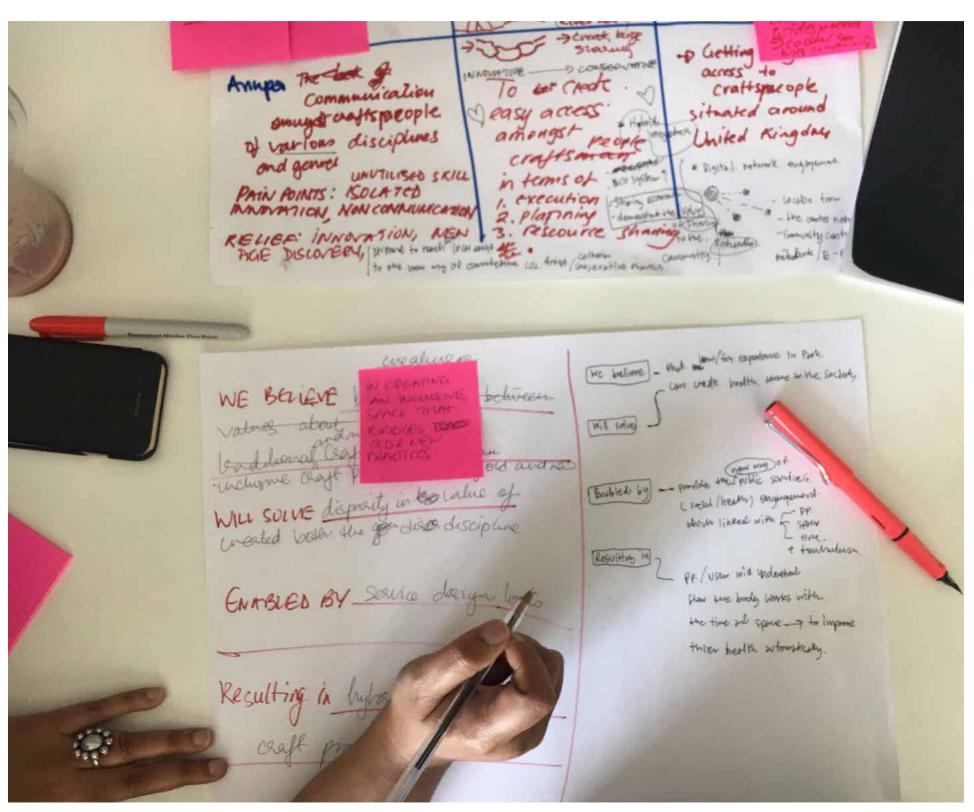


Getting resources and storage have been a task for the participant. She is forever wondering how to manage space.

Fig 2: User Journey



3. Co-discovery Activity



Compiling data and make sense

Stages 1:

By looking at the subject are: communication within the various craftspeople. Pains: isolated innovation and non communication. Relief: Innovation - new page discovery.

To create an outcome: To create accessibility.

How: By looking a regional connectivity

The way I broke down this information was to create a statement which was binding the whole aspect together.

We believe in creating an inclusive space that bridges old and new practices

Will solve the lack of communication

Enabled by makers themselves.,

Left: Co-discovery activity conducted in class.



4. Insights





Generational

knowledge and skill **transfer** are key aspects of this form.

01

04

Tacit knowledge of learning and education are getting lost. Today there is focus on design rather than technique.

05

02

Awareness and **value** for hand made products are **low**.

Resources - Raw material and space are always in shortage and demand. Opportunity to re use is opėn.

03

Craft practices have develop kinds of thinking processes. Story telling and making narratives needs to be pronounced to show the value and experiences of this industry.

06 07

The **ageing** population with the within the craft **new apprentices** are decreasing.

Shared practices craft makers are industry are fostering increasing while the towards technological centric innovations by contemporary craft makers

Above Left: Conducting Co-discovery activity.

Above Right: Outcomes by affinity mapping. Reference: Britz et all (2010)





Empathize

Objectives

- To articulate ways on how relationships work within the craft industry?
- What is the overview of the value in indutsry?
- Build personas to generate an identity of the probable actors of the service.

The "empathise" stage is where the meaning of the insights begin to surface. The discover phase has located focus and it needs meaning making through empathy to create the human centered connection.

There are volumes of data that has been discovered and now with logic and empathy, it needs to be dissected. By sense making, in a driven exercise, matching of the relevant associations takes place, Sangiorgi and Prendiville (2017).

For example, gaps and opportunities have alternative and mixed features. How do you compare and collate insight?.

How can the experience of being a craft makers be understood by the designer?

How do I gain value from the time spent with the participants?

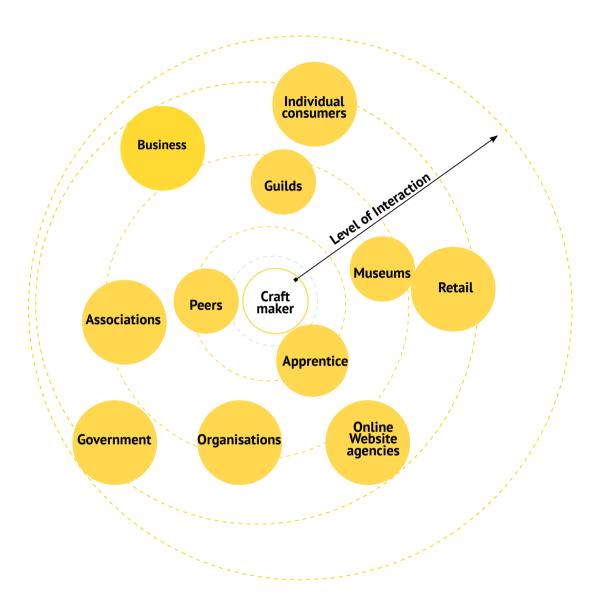
Interpret meanings found through research carried, primary or secondary brings authenticity. Emmison, mayall et smith (2013) discuss that one of the approaches significant is exploring visual data. The meaning making made by the use of visual data is by produces value. I have used participant centered methods to build more meaning to build data so I could map them out and decode the visual data.

0

Tools and Methods

- 1. Stakeholders Map
- 2. Business Canvas Model
- 3. S.W.O.T
- 4. Persona
- 5. How might we?
- 6. Role playing
- 7. Co discovery tool set
- 8. Design Criteria
- 9. Structure co discovery
- 10. Key Insights Mapping
- 11. Insights
- 12. Research Question

1. Stakeholders Map



Reference: Stakeholders Map: Stickdorn & Schneider (2010).

Fig 1: Stakeholders Map

A skate holder's map is a service map that entails a network of stakeholders with in the crafts industry, performing interconnected and reciprocal service.



2. Business Canvas Model

USERS PROBLEM UNFAIR ADVANTAGE SOLUTION Craft makers -Create spaces for skill share and Many micro resource share. Traditional vs Contemporary. Lack of skill transfer. Capture the tacit knowledge innovations are not Isolated pockets of innovations -UNIQUE VALUE PROPOSITION to create systems for collaborative and turning into macro no transferable knowledge system. preservation of practices Lack of awareness and value. Foster connections between the Tacit Knowledge bodies innovations. craft community and the stalwarts of the craft There is a disengagement or not within the craft industry Isolated craft units industry. enough recruits. have power to build strong Build better commissioning process are not feeding into The aging workforce and the lack and opportunities. Funding availability and narratives. of new recruits is leading to the extinction each other. approach should be enhanced. or endangered crafts. Create a hybrid space that Most craft practices can accommodates the traditional practices and The uniqueness and value of a convergence to re create new age. craft is not be promoted properly. newer experiences and Authenticity questioned at times. **KEY METRIC CHANNEL** The emphasis given on design meaning. rather than technique now. Fig2: Business Canvas Model Commissioning. Traditional craft values can The lack of apprentices and Direct. bring value to the newer By using the model at this stage, it opportunities to be mentored by senior Business to Business. helped me structure your project from understanding of craft and craft makers. dissected form to an overview. I was Online. The poor networking facilities technology. able to analysis user relationships to amongst the makers. Physical spaces. Can be bridged with other gain better opportunities and insight. Lesser knowledge of business To identify the roles and the necessity Stores. disciplines. needs. and value of each user. **Events** Mass manufactured products gaining appreciation due to comfort of price and availability. **COST STRUCTURE REVENUE STRUCTURE** Commissioning. Resources - Raw material and Human. Sale. Physical spaces. Funding. Management costs. Crowd sourcing Overheads. **Sponsorship** Travel.

Reference: The Business Model Canvas. Alexander Osterwalder (2008).



3. S.W.O.T

Strengths, Weaknesses, Opportunities, and Threats

Strength

-	Hand made artistry	, encourages heritage	, culture, de	sign and qu	uality.
---	--------------------	-----------------------	---------------	-------------	---------

- Progressive and innovative form.
- Multi material centric
- Increase in exchange
- Hand artistry stemmed from one of the main drivers of art movements.
- Adaptable form of "design"

Opportunity

- Use of material resources through innovation and efficiency.
- Build collaborative measures amongst various makers especially during the process of execution.
- Increase awareness craft
- Build systems of social change sharing skills
- Adaptable to design thinking and trends

Weakness

- Low business and entrepreneurial appeal.
- Education of craft is on the decline.
- Marketability and positioning is weak
- Awareness of the craft is low.
- Business models are not well structured
- Government Policies are not flexible or progressive enough.

Threats

- Both government and business need to better understand to see potential.
- Education system on craft is reaching closure on many accounts
- Risk of Losing investment
- Low economic flexibility

Fig 3: S.W.O.T

Used to identify key variable of the system to gage the attributes that work within the industry internally and how the variables externally contribute to the system.

Reference: S.W.O.T. Humphrey (1960).

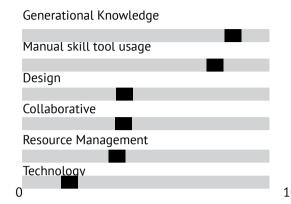


4. Persona: Traditionalist

Bill Ring | 40 yrs

Needs

- More appreciation and value for this industry.
- Building better skillshare and network systems.
- Locations are easily accessible.
- More preservation of skill and knowledge.
- Lesser apprentices.
- The ageing community of traditional makers are increasing.
- Some skillsets are becoming obsolete.
- More opportunities to access new age technology.
- Needscross industry skill share





First level Apprenticeship

education







Creating and experience building making







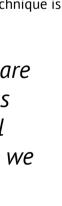




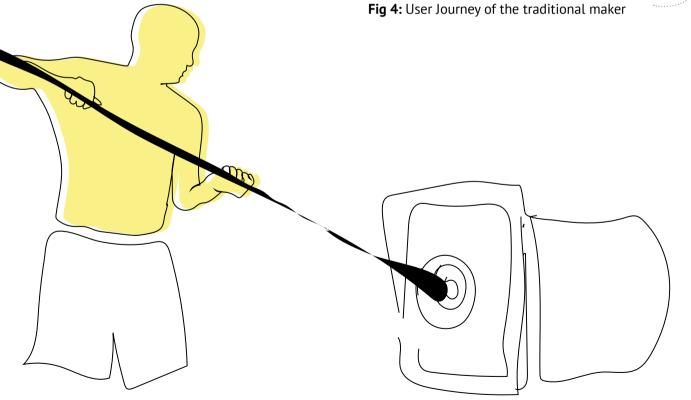


Motivation

- Family Legacy.
- Generational knowledge practice
- Learnt through apprenticeship
- Generational knowledge systems.
- Cultural and societal.
- Access to primary source education.
- Execution by manual craftsmanship.
- Awareness to precision and technique is high.
- Mentoring.



"I believe these skills are part of our heritage, as much as the historical buildings and wildlife we seek to protect."







4. Persona: Contemporary

Robert Bale | 35 yrs

Motivation

- Academically taught.
- Learnt through apprenticeship.
- New age practices.
- Knowledge systems are collaborative.
- Skills are regularly upgraded.
- Mentoring.
- Open to use to new materials and processes.

Manual skill tool usage Design Collaborative Resource Management Technology 0 10

Needs

- Connection with the other industry disciplines.
- access to traditional practices.
- Understanding to business needs.
- Using their design craft thinking abilities in a better fashion.
- Make relational behavior more effective.
- More awareness and value for the craft.
- Making the user understand the new age techniques.

"There has to be balance between how technology and hand made interlink"

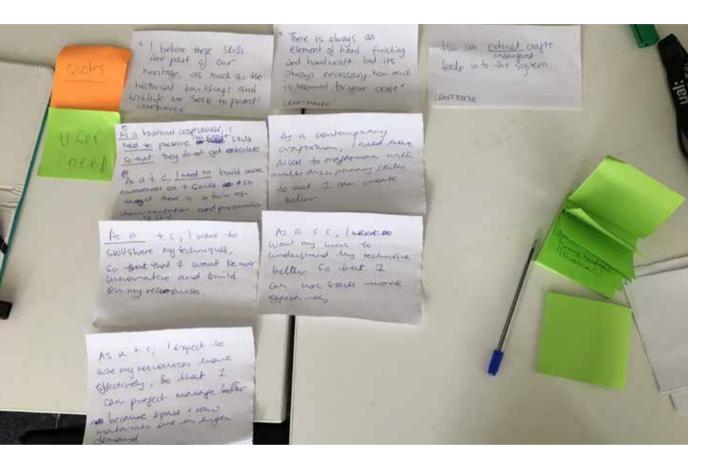




Fig 4: User Journey of the traditional maker



5. How might we?



The use of "How might we" format, Brown,(2009) is a way to create the right questions for inquiry. I brainstormed with multiple ideas and narrowed the insights in to a framed question.

I began to look at the quotes that have been said by various users -

For example, I looked at the contemporary personas - "There is always an element of hand finishing and hand craft but its also necessary - how much is required for your craft."

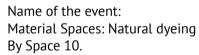
The need of this persona is to be more multidisciplinary and collaborative. The want is to understand more techniques to create more innovation with out being boxed

How might we use better communication and accessibility to help maker create innovation on handmade processes in a hybrid fashion

Above: Image of how might we be tool (2017).

6. Role playing







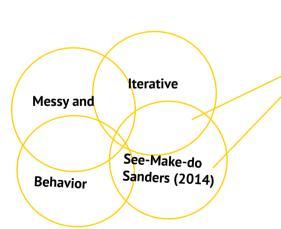
How do you feel like a craft maker? - what are the behavioral patterns? What are the kind of experiences does the craft maker go through.

The tacit knowledge is transfered from the teacher and other participants to me.

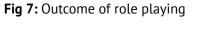
The iterative nature of the and dye process and repeatedly perfecting it.

Behaviour and experience - how does the physical space affect me? How do the participants execute and the way the keep manage their tools.

See- make - do (an essential process) for a maker. Sanders and Stappers



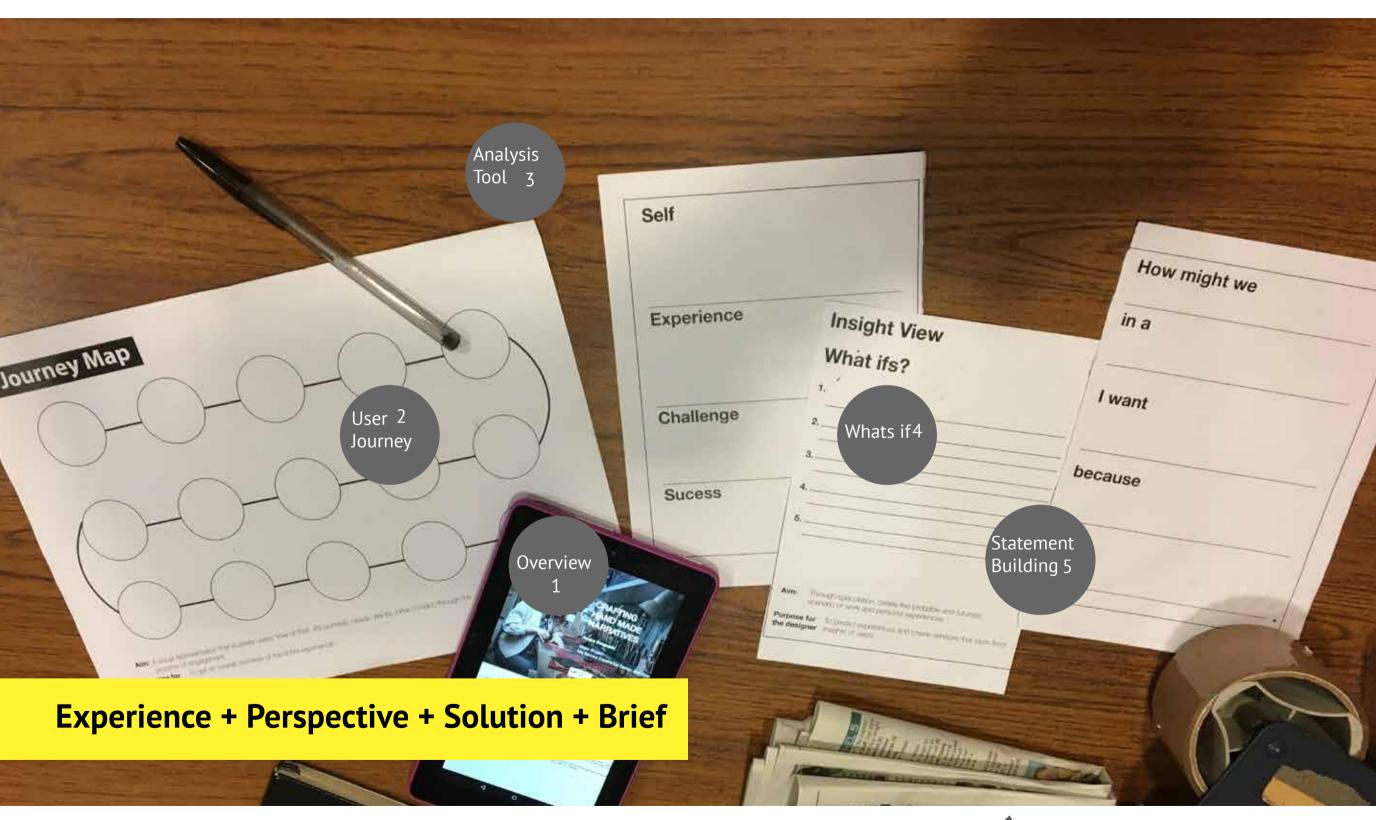
Left: Practicing Tie and dye. **Right:** Tie and dye workshop (2017).





7. Co discovery tool set

To use as a conversational probe for investigation.

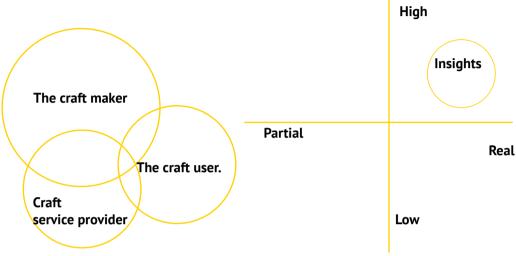




8. Design Criteria

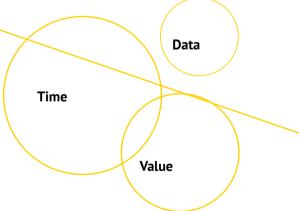
The inquiry and research was yet to be explored. I decided to conducted contextual interviews with specific participants. I identified three users- all interconnected. One aids the other.

To validate the insights I have gathered, please refer to page 39 with the current participants.



They are in an interconnected web where the success of one depends on the other. The maker needs the user for business needs. The user needs the maker for fulfilling their requirement. The service provider and the maker where they in collaboration with each other promote a collective goal of crafts.

needs. The user needs the maker for 3. To utilise the time of the users in an fulfilling their requirement. The service effective way as this a key concern during provider and the maker where they in interviews



Clockwise:

Fig 7: Venn diagram showing the relationship of the stakeholders

Fig 8: Model on Time and value versus data

Fig 9: Matrix map showing the assessment on insights

9. Structure :co discovery tools



Stage1: The participants were given an overview of what my project so there is a level of context to their meanings and understandings.



Stage2: Understand experiences and patterns with the users.



Stage3: To get a holistic perspective by assessing themselves through 4 criteria.



Stage 4: Through speculation, create five probable and futuristic scenarios. Allowing the participant to look at solution



Stage 5: Evaluative and cumulative by defining a small brief to them

Reference: Stickdorn & Schneider (2010). Bell and Zimmerman (2014)

Insight: This structured method enabled the participants to Venue: At the particistart the process by making decisions on framed questions. pants' choice.

This expatiated the process between the participant and hour depending on their myself as we did not have to speculate on how the data want to be descriptive. would be received.

Venue: At the partici pants' choice.
 Duration: 30 hour to an
 hour depending on their
 want to be descriptive.

It allowed them to open, iterative and create their own thinking patterns. Thus, making the data collective more valuable and interesting. I saw the participants felt happy while after fulfilling the activities. There was value as I was giving them a structured format which made them feel prepared and productive.





The evaluation of these insights were put into a framework of three parts:

Observation: The additional information by the participant.

Insight: The actual data given by the participant.

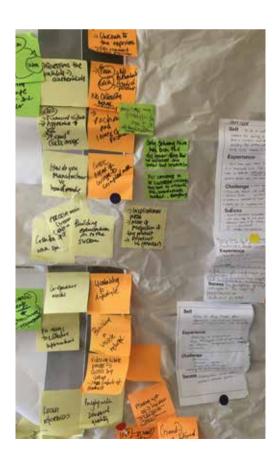
Reflection: As a designer, the data that I gathered as an observant.

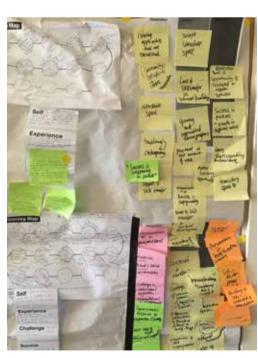
This process was important :-

- 1. To see how the data varies from insight to insight.
- 2. To evaluate on a structure which applies to all the participants.
- 3. To decision and sense make from the data I collected from observation and secondary insight (data inferred by me) and from the participant's data.
- 4. To differentiate between the above forms of data in a practical way.

Foglieni, Villari and Maffei (2014.p 74) refers to "systematic evaluation" as a way to assess the practicality of the assessment if they were feasible and not.

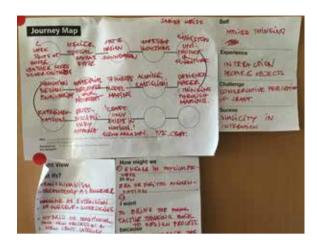
They discuss that choice is a representation of the evaluation you make of a situation. My criteria had to be data driven by the participants but validated by observation and secondary insight.





Above: Insights and evaluation (2017).

10. Participants: Key Insights





Participant 1: Craft Maker: Newage and young maker:

- Focuses on trans humanism technology approach.
- Looking at a tactile approach to design process.
- Wants to go beyond the " typical" value and awareness of craft. Interaction with artifact and object



Participant 2: Craft Maker:

- Believes in exploitative and iterative methods.
- Has learn t and teaches
 through tacit knowledge.
- Creates her own process for each class or collection and builds new ideas. Storage, space and re use is one of the main concerns.'Self motivated.
- Does her own marketing and branding.

- She uses the word of mouth to promote her self.
- She collaborates with other makers easily and feels its important for her growth. Her classes are process and technique orientated and differ with the skill levels of students.

Clockwise: Insights of participant 1. Participant 1 writing. Participant 2 speaking. Participant 2 writing insights. (2017).







Participant 3: Service provider of a well known crafts agency.

- Ceramics is prosperous industry.
- Skill sets are different
- The members work as a cooperative, headed by the members.
- Membership is on voting by other members and skill level.
- Packaging is a huge issue. The awareness about ceramics are growing.
- Great response at shows.



Participant 4: Service provider of a well known crafts agency.

- Successes in pockets
- Traditional form of crafts is surviving in difficult.
- Lack of value and authenticity.
- There is a disparity in recognizing age old techniques.
- Huge number of crafts are becoming extinct.



Participant 6: Craft User

- Appreciates craft at the makers level.
- There is value which is appreciated.
- She doensot know where the events are happening
- She would like stories about the products.
- She said that there has to be visual dialogue between the maker and buyer.
- Better selling displays.

Clockwise: All participants focus on writing. **Right:** Participants focus on writing. Participant smiling.(2017). Close up of insight page.



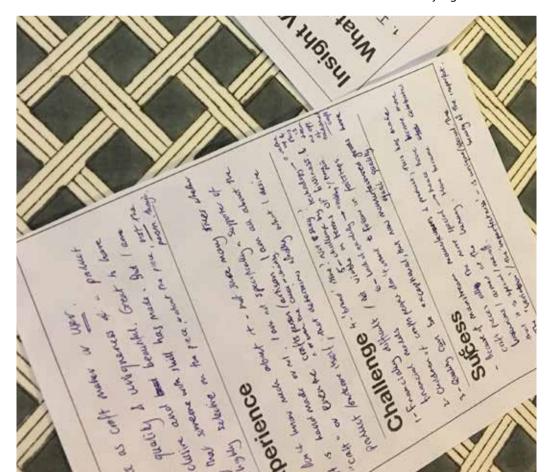
Participant 5: Service provider of a well known crafts agency.

- Crafts is at the innovative threshold.
- Technology and crafts needs to be married together.
- It has to be lifestyle specific.
- The positioning has to be of a new age maker.
- If crafts are extinct, they need to be re-contextualised.



Participant 7: Craft User

- Very specific about the quality in the craft rather the maker.
- Skeptical on how authentic the product at times
- The craft maker has to be face of the crafted product
 the individual and the brand.
- Would like to a visual photo discussion between with the maker before buying.



11.Insights

01	02	03
Build and share the narratives of storytelling and story making.	Successes are seen in small pockets.	More validity and authenticity in craft products.
04	05	06
Make craft makers as maker, thinker, face and the business entrepreneur.	Traditional processes to hybrid spaces.	More tacit knowledge explorations.
07	08	09
Space and location as resources are rare.	Cognitive development Collaborative/ skillshare and knowledge upgradation.	Structured design thinking approach can transform the maker in to an effective executor.
10	11	12
Importance to education in craft.	Making workshops and classes more effective.	Making craft more relevant in current context .

12. Research question 1

How might we create a service that helps craft makers generate value from their existing knowledge banks and create new hybrid spaces?





Define

Objectives

• How do you evidence, validate and create

The previous stage has a build **Tools and Methods** platform with a reservoir of data which is ready to be questioned. A 1. Co-design framework for developing a problem 2. Insights mapping area has arrived. The validation for 3. Overview of insights all the problem areas is important 4. Research Question the design solution that before you set the final design frame 5. Situation Mapping matches the aim and so one can get importance and objectives, priority and requirement.

> The insights will be furthered by validating them. A codesign activity will be devised to see the validity of these ideas with a focus group of craft-markers. The gains and pains of the ideas along with a co-creation workshop will lead a well defined service concept with real time users. This is a beginning stage of an iterative process areas is important before you set the final design frame so one can get importance and priority and requirement.

The codesign workshop has lead to a series of insights mappings which has resulted in the "IDEA". Moore(2013) indicates the importance of constant specific analysis of objectives in a project. He says that addressing objectives. He encourages at stages to guide the designer and to be on track.

- 6 Relationship situation map 7.Initial Ideas mapping

Consolidating data from a larger perspective

1. Scope and Focus

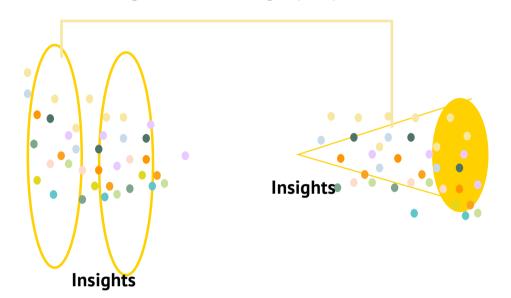
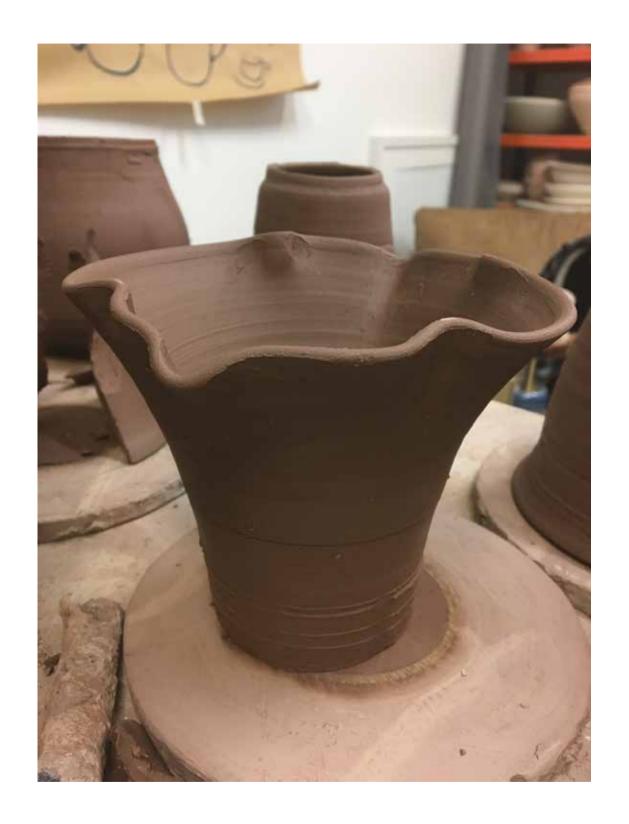


Fig 1: The shift in focus was necessary at this stage because I was looking at craft from a over all perspective. There was no specificity in the approach. It was important to look at one kind of craft to see the key insight at close. Look at possibilities of piloting it and then re adapting it to other context in craft: form or region.







Unfired pot. (2017). Potter's wheel. (2017).

2. Why Pottery

Personal interest:

Pottery as an craft form has always fascinated to see potters mould their clay lumps on the wheel. The whole act is like a performance piece. Pottery is a lifestyle product so the experiential use is more than any other craft.

Viability:

The Radcliffe Red List of Endangered Crafts(2017) has titled Pottery as "currently viable."

Access:

The information availability and access to potter was the most apparent. The number of craft fairs that take place are plentiful. NCECA Journal, 2010 says that there in growth in 25 percent in the undergraduate members across all levels in Uk.

Popularity:

Stroke on Trent website discusses the substantial increase in their production and authenticity. There have been various companies such as Wedgwood, Churchill and more than have created a mark on the ceramic industry and also powered the relevance of "60 Made in England".

They said over "300 companies employ over 7,000 people".

Visibility:

Major pottery shows like the The Great British pottery added to the interest.

Opportunity:

Research shows that there has been a upward climb from £125m to £181m in the year of 2009 and 2013. This was almost 45 percent increase in profit

Relevance:

The British government has a significant chapter on import and export on Ceramic. This is probably to due the sheer transactions within this field.

Given the above reasons, it was importance to probe in to an area which has some much potential and value. The level of promise in a makers journey needs to be investigated with amount of gaps and challenges a sector faces to develop a solution that which works in totality and approach.



Unfired pot. (2017).



3. Co design

Poggenpohl and Sato (2009) discuss on how important it is to involve the key user in the design process. The need to explore with the potters was important at this point. By building validations with the key users, the process was becoming more user-centered .Furthermore, advocating for the involvement of the service users as an essential part of the design process for a service they will use.

I contacted the Southern Ceramic group and was privileged to join them at an demonstrative workshop on ceramic techniques for the members.

Sanders et all (2014) discusses how effective it is to first focus on a core subject which can be developed further through the course. ie workshop to build new directional opportunities and understand priorities.

The main core idea of the codesign activity with the craft-makers was to identify key human centered values and their priorities regarding location, identity, network and future ideas.





Therefore, this would me help identify new relevant directions for a potential service by building scope for innovation and giving the users a voice.

Setting:

The participatory session will taken place at an member's potters workshop, at **Previous page: Clockwise:** Unfired pots. Conducting a session with the potters at Angemerig. Potters working on an activity. (2017). **Above and side:** Codesign tools at Angemerig. (2017)





Angemerig, which is a yearly gathering where the potters explore various methods as a group activity.

Brief given:

The mandate given was that the activities had to very simple and "not fancy". The participants would be free to join when they are idle.

The makers would be analyzing, executing and in conversation so the tools had to be communicative, uncomplicated and quick to execute.

See appendrix for details of tools.





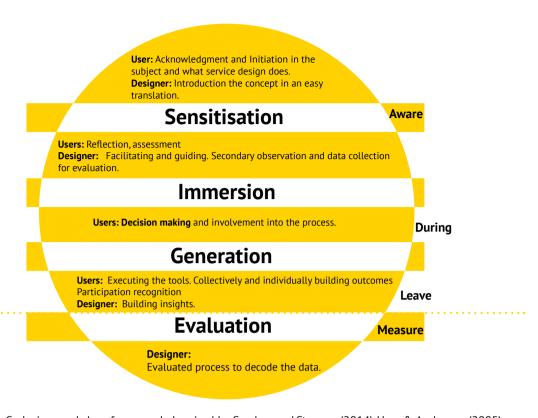


Fig 2: Codesign workshop framework: Inspired by Sanders and Stappers (2014) Herr & Anderson (2005) **Community specific Region Location Clusters Traditional/Contemporary** makers

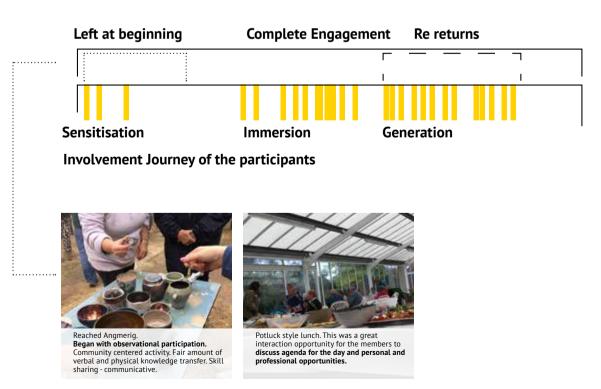


Fig 3: Codesign Journey

The structure of the codeison framework was inspired by Sanders and Stappers (2014) on a few accounts. It was predetermined with specific tool usage and techniques of them would be used. However, it was open ended as well.

They says that the participant have initiate a level of understand before they engage with topic by "sensitizing" them. This allows them to connect with their past associations.

The scenario contextualisation allowed the participants to immediately connect with the persons as craft makers and think of their relationships with the subject - if they are traditional or contemporary. One of the users said - "I didnot know I am all this - I am"

and Stappers talks about Sanders "immersion"as a way which induces the participants to execute the given tasks. The immersive process of th codesign was semi structured. They started to verbalize the instructions at first.

Their view on generative tools is iconic. They say that "think - see - do". This kind of process is very important for the makers because it can replicated to their experience and behaviour. The moment the makers began understanding the value and objective, there was a level of adapting and re creating.

It was actions that facilitated but in unobtrusive. The tools used are:- (please refer to the map): Location Mapping, redefining the stakeholders, priority mapping and matrix

The evaluation method was inspired by Herr & Anderson (2005, p. 54) in Salinas, L (2016) where they say that "Democratic validity" assessing criteria who represent a multiple viewpoints. There were over 20 participants at the activity. Process validity - has value and authenticity. The tools were inspired by industry based practices and some tried earlier at the co discovery phase. The structure of evaluation was based on three criteria from a designer's perspective after considering these two points of reference:

The way the evaluated the insights were mapped for all the tools was similar to the co discovery session. Please refer to

1. Observation 2. Insight 3. Reflection. Please refer to method use at co discovery tool set: p.52













Clockwise: Decoding Data. Codesign session with the potters at Angemerig. Potters with participation sticker. Potters in Discussion. (2017)





Iterative process making - The makers engage in to constant discussions and they constantly adapting their physical process.

By giving the co users, a participant involvement sticker. It gave them more value and enthusiasm to join. Systematic documentation is barely existent as these processes or ideas are not recorded in any way.

There is a high level of trust amongst the makers. The image above shows that a man is picking out fired artworks from semi flamed pit. The balance of that man depends on the two men who are holding him with a harness. The kind of solidarity is a rare quality.

4. Insights - codesign

- Variety in skilled techniques but there is lack of documentation.
- There is a lack of opportunity knowledge banks.
- Collective body of potters solidarity
- Less value in craftsmanship
- Education needs to be more acknowledged by giving students and class of craft more attention
- Better ways of transmitting knowledge to younger potter or students.
- One narrative into another preservation and documentation
- Location and space not a barrier -How can they use their opportunity

- as a success.
- Cognitive skills technical and tacit knowledge
- The need to find skill building and sharing.
- Governmental support and polices are missing in their process.
- They have specific ways of executing and techniques - need to be
- Designing thinking skills needed.
- Excess of space.
- Trust, faith in conducting high risk activities and communication.

Stage	Activity	Description		Observation	Insight	Reflection	Touch points
Sensitisation	Scenario Contextualisation Reference: Schneider and Stickdorn(2019)	Acknowledgment and Initiation in the subject and what service design does.		The first contact point gave the participants a brief overview and the profile of users I was catering to.	The participants were able to recognize a similar setting. It let them make their judgment and allowed them to set the tone with own perceptions.	Amusement. Generated conversations of who they are and how they are viewed. Discussion on contemporary versus traditional.	The co design tools
Immersion	Location Mapping:	Identify the place of orgin and where would like to travel to find probable opportunities.	Generation	It gave them a sense of bearing and placement. The participants started to draw regions not located on the map.	Most of them choose London and their peripheries. They also chosen overseas location but was concerned about the cost and lack of opportunity. The reasons for good quality resource and clusters of makers.	Sparked conversations on collaborations and willingly to explore now. The need to have a workshop and tools at close proximity was a concern.	Contact details cards
	Redefining the stakeholders Reference: Design Flanders (2012)	To re assess the current stakeholders and see how they are in contact the map and if they are any new users.		Discussions on the importance of users networks.	The main users: Other makers, business venues, organizations. However a new user was added which was education. Close proximity to students was very important.	Most makers, executing at different times, felt same: that education was over looked. The reason a holistic approach to education in craft at younger ages was imperative.	Stickers for participation engagement
	Priority Mapping	With given variables which was most importance to least important.		The requirement was based on the physical geographical location. A turning point for the project.	Raw material, physical work, collaboration, discussions and design ideas are the main points. The least important points were storage, tech upgradation and semi mechanical	This was a very task because it made the reflective on their journeys as makers and see how the environment affected	
	Matrix map: Reference: Bell, Masaoka and Zimmerman(2010)	Identify values: in how he maker saw themselves-how they e		Valuable conservation was very one	Recognising the value of craft. Building effective resource point. Easy collaborative and need for opportunity.	They left it was an important space because they could identify the wants and needs clearly. It was a space to share their views in collaboration with each other or not.	

Codesign Map



"Codesign is about designing" with "rather than "for" people in order to create shared value."

Verschoor (2015)

The southern potters are accustomed to function as a collective body. Research from my past insights have shown me that potters circulate in groups or they function in various hierarchies of tutor and students.

Left: Cleaning the residue from the cleaning process. **Right:** Potters showing the outcome. (2017)

4. Overview of the insights

After the comparison between Londoners and South potters there are similarities between them.

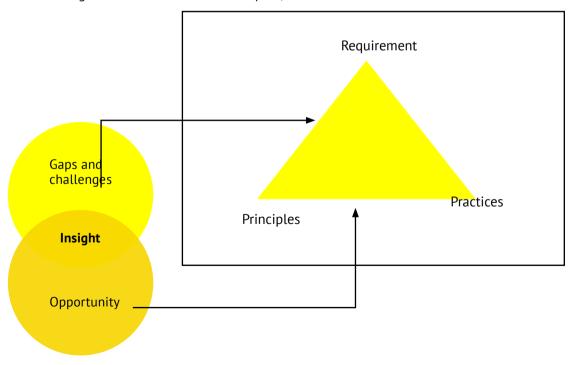
- 1. The ecosystem of this pre existing system of pottery community involves;
- 2. The context of the crafts,
- 3. The service system functions south potters have education has as their main users
- 4. The profile and relationship of the actors, process methods.
- 5. Gaps and challenges.

I could come to this conclusion addressing the duality of insight and value mapping with gaps and challenges at every phase.

The shift in insight value mapping was a defining shift. However I feel that this space,

as seen below can be seen as a wicked problem by Rittel and Webber(1973) where viewing a gap could be challenge and vice-versa. The gap of one region can be looked as an opportunity of other. Craft makers work individually and differently face a few problems not universally which can be seen as opportunity for the other . Nesta says that their finding tell them 88 percent of the crafts industry are individual makers. They are located at regions and sectors but function as clusters.

The model defines how gaps have been defined as opportunity. Han(2010) discusses how gaps can be defined into specific frameworks, approaches and experiences. The requirement would be the needs, resources, space, collaboration, skill sharing, opportunities of the makers. The practices would be executional techniques an processes they use and the principles would be the philosophies or approaches they use.





5. Conclusive insights

Geographical Location

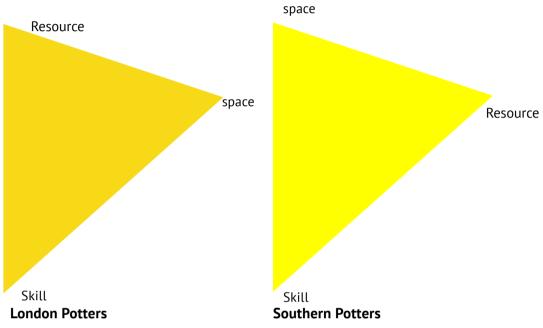


Fig 4: Opportunity versus gap

intensity would be different.

This was a key realization that geograph-

ical location is key to building a service

and the levels of opportunity and gaps might be the same however the level of

The user research throws light on how the gaps and challenges can be very specific to a certain region of potters due to their location or it can be universal context that affects of them.

How do we define the problem area?

We can assess a gap of one area and match that with an opportunity of another.

London potters have more advantage in resource and skill than the space while the south potters have space as not an issue.

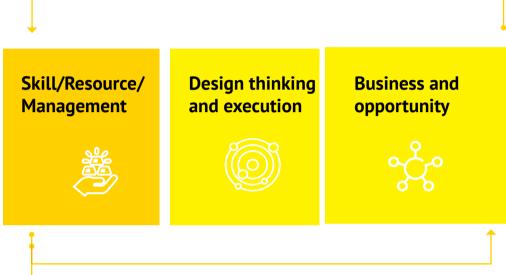
6. Research Question

How might we create a service that generates opportunities and value for potters to transform their current needs and gains into successes?



7. Key Values

Value for storytelling and story making Accessibility/ Availability



Knowledge Banks Communication and Networking

Space is not a barrier.
Specific activities
Location

Opportunity availability is one of the major concerns amongst potters which has inhibited them from reaching their capacity.

Lack of knowledge and approachability in other locations, England or overseas.

Location access is a major hindrance or opportunity. London potters face the lack of accessibility to the land and workspace due to the sky rocketing prices on property where most potters living in the south of England donot view space as a barrier.

8. Relationship situation map

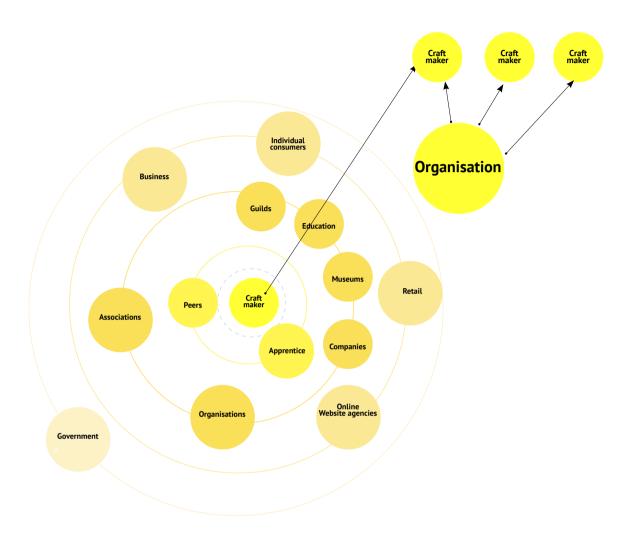
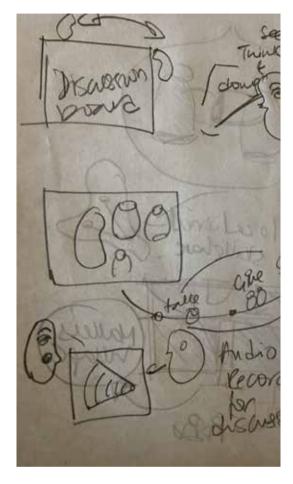


Fig 5: The service network is functioning as a main body. Each body then functions as separate nucleus and then function as cluster, governed autonomously or with an organization.



9. Initial Ideas

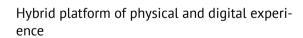




Left and Right: Initial sketches. (2017)



As a co-designer, I want the idea to engage participants as the Stappers and Sanders (2014) four levels of creativity doing-adapting-making.



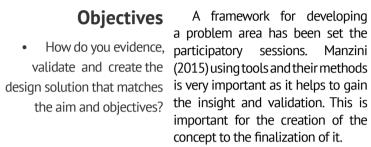




Ideate

Objectives

the aim and objectives?

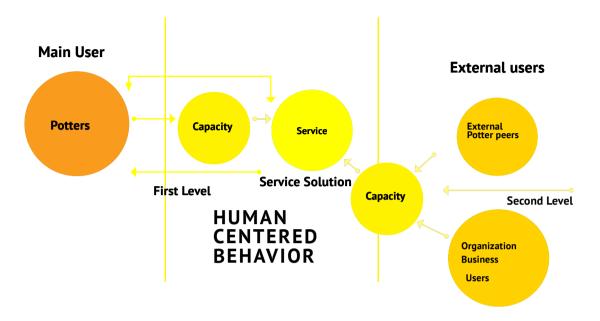


By developing the service that has workable outcome is how this stage was explored. It is bringing th tangibility of form in to the existing research.

Tools and Methods

- 1.Service situations scenario
- 2. Service Concept
- 3. Rationale
- 4. Requirements
- 5. USPS
- 6. Basic Ideas
- 7. Scenarios
- 8. Skate holder's Map
- 9. Service Blueprint
- 10. Relationship Mapping
- 11. Personas
- 12. Personas
- 13. Service Journey
- 14.Business Canvas Model
- 15.Pre-post service model
- 16. Benchmarking
- 17. Outcome
- 18. The service
- 19. Cards
- 20. User activity encounter points
- 21. How does it work
- 22. User Flow chart: Digital Toolkit
- 23. Digital Toolkit
- 24. User Flow chart: Digital
- 25. Digital Toolkit

1. Service situations scenario



Capacity

A variable which is a skill, resource or mores o a criteria that needs to be used, changed or given.

The key user of the service are potters who will be the intended target audience. The first level of service begin when main user of utilizing a capacity.

Capacity are capabilities or abilities such as skillsets, resource or any that they have to use within the service.

By using of their capacities, the key user can either use it within the service as an asset to navigate through the service or use it to communicate or exchange with the external users.

The service also allows the external users to contribute their capabilities to

the service delivery by making it more inclusiveness and sustainable.

The relationship therefore focuses on the primary stakeholders of the makers radius to increase the flow of co-creation, financial fluidity and shared practice led processes.

The service can function with one region of potters or others. They can work individually or collaboratively to use the service by co creating or sharing their perspectives and outcomes in a close proximity.

Fig 1: This the overview of how the service will work amongst the various users. They will differ in the importance and service behaviour of the engagement.

2. Service Concept

A comprehensive and transferable physical and digital platform that aids the potters or ceramists, traditional or contemporary, in the United Kingdom in their pre-post executional and creative process by aiding them to think, ideate, develop and disperse their journeys in craft.



3. Rationale

The core principles of the service are :-

- 1. Adaptive and generative process. It allows the potter to execute from the past and present practice methodologies to generate, reflect and evaluate for the future. This is showing that the potters that it is specific to them and effectively create opportunities for their intended audience.
- 2. The need to constantly involve the **experience of the material** with thought is an important. Karana, Pedgley and Rognoli (2013) explore how material experience attributes to the sensorial and product outcome. The integration of touch and sight that trigger a certain kind of sensibilities is in intrinsic practice inherent to a craftsman. A potter;s journey is highly dependent on the vitality and physical intimacy with the materials.
- 3. The service needed to be **executional** as well **reflective and evaluative**. The completion of a service only achieved when the maker can measure and assess their involvement. Tools are provided so that maker can evaluate their work, business or their positioning. Decision making abilities can be assessed through the evaluative priority list which is a list board. It can be customized in situations.

Foglieni, Villari, Maffei (2014)talks abouts systematic evaluation in projects to determine what can the viability of it. The more feasibility the outcome is, the better chances are there to be replicated and reproduced.

- 4. The potter is prompted to use **convergent** and **divergent thinking** process to that focus and explore alternatives.
- 5. By building around the human centered needs and opportunities of potters, allowing them to view and position themselves from multidimensional positions so the role of the makers changes from maker to the brand to facilitator amongst makers. The service allow the maker to create and adapt situations through design.

Fisher(2002) talks about the inter changing roles from passive to active. He further says there is friction when is action if forced. The system allows the maker to use any role at their convenience and choice.

6. Juxtaposing the **craft of play with craftsmanship** was a key way to introduce the idea to the users. Tim Brown, in his ted talk, discusses the important to have child like emotions of amusement, happiness, embarrassment because it helps design better and delve into taking risks.

Inspired by the philosophy of The LEGO® SERIOUS PLAY which is a way to prompt users to use imagination, creativity practices, shared visions and problem solving mechanisms. Using the idea of adult play, the service uses the simplicities of thought, execution with play.

4. Requirements

Objective

To generate a new thinking process that the makers can choose to adopt, adapt and contextualize this process in building their innovative framework.

To use the form of 'PLAY" to engage makers to utilize an reflective, educative, creative, active yet fun way to think, ideate, develop and disperse their ideas.

To help demonstrate to makers that using a comprehensive system catered to their needs is a building trust, validity and better workmanship in their industry

To create a design led system as a step by step guide that supports the maker at every point.

Value

The value lies in how the relationships within the society. The maker is more self sufficient and independent to execute creative and business needs by getting access to an holistic system that caters to both these purposes. The system is inclusive which aids the makers and his/her periphery.

Outcome

A transferable digital and physical system works on two levels.

1. The toolkit comprises of physical set of information cards which were a series of tasks that will help the maker to effectively think,ideate,explore, develop and disperse.

Alongside, the maker receives a template top place this cards inorder to execute the instructions. There is a priority list which helps the maker summarise and organise the cards which being executed.

This whole system is found digitally to enhance the experience and to provide accessibility at any given point, communication with other collaborators and actor as a constant guide at given point.

2. To create an inclusive digital platform and support the maker in terms of creative, operational and collaboration priorities.



5. USPS

Comprehensive System

To create a holistic and collective system that caters to the needs of imagination, innovation,image positioning, business and collaboration. This system is easily accessible and available at multi level touch point.

Multiple and Singular Journey

It helps the maker define the existing and current journeys of potter whether is skill building, design thinking, management and operational needs, business structures, co creation and making a hastags for a social media. They are building their own journeys by decision making.

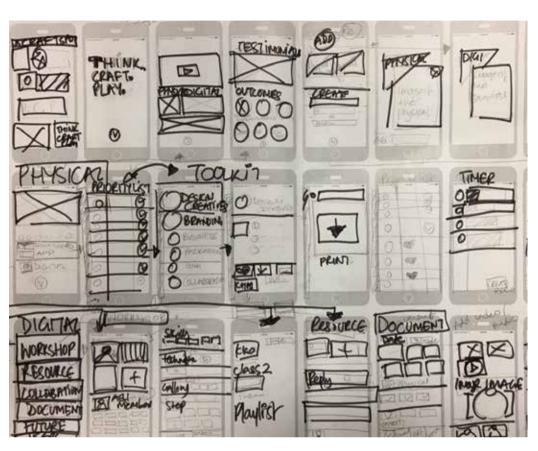
Context specific

The value in its context specificity to the potters. Terminologies, process and methodologies are adopted from the industry. This allows the user to feel connected and focused to their topic area.

Developmental change to transformational innovation

The ceramics practitioners are in a knowledge and demonstrative based system. Firstly, the change starts in creating and improvising through development of skills and technique. The transformation happens when they leave their current state to create a new improvised and future position. Verschoor (2015)

6. Basic Ideas

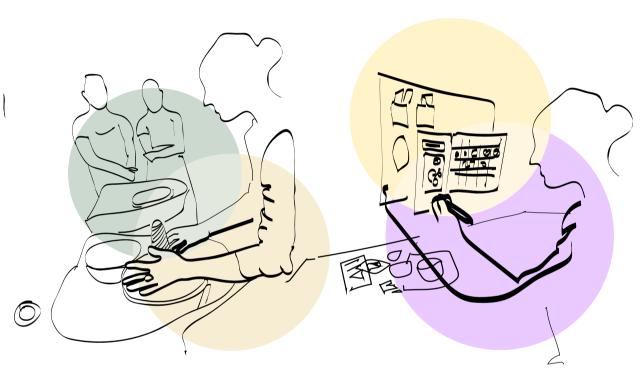




Above and below: Initial concepts (2017)



7. Scenarios



Transferring Knowledge systems

The maker is able to blend their existing practices into new scenarios. For example, organising a workshop in a more structured fashion. The physical experience can be translated in to the digital space for easy communication and accessibility. The relationship between tacit and explicit is very important because there is validation and trust building. Human centered design can work best when the user is building from experiential knowledge.

Blending existing and new iterative process methods

The maker is able to use new processes similar an different to the current ways of working. There is focus on using textual and physical material to aid the thinking journey without dis associating or deflecting from prescribed methods. The knowledge reflective learning progress is not only educative for the maker but helps also impart knowledge to students, other makers and service provider, Polaine, Lavrans and Reason(2013).



Developing own narratives

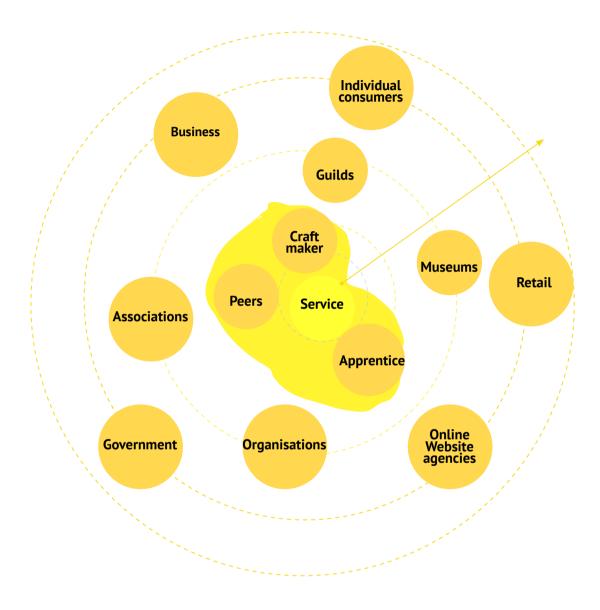
The maker is given tools to build their own story telling and present their journey as an effective potter. The story could be about developing a series or creating a social media narrative for sale. Newbury (2013) suggests that when the story is explored and translated in the correct format, the outcome is more feasible. In this way, when the maker creates meaningful narratives, touch points or processes, the environment around the maker works is more engaging.

Carving better futures

The constant innovative approach by the maker allows the creative process to be futuristic. Henchey, N. (1978) in Voros (2017) presented the four case of future speculative interpretation; possible, preferable, plausible and probable. This kind of decision making ability enables the maker to know how sustainable or speculative their future is. This could lend towards thinking and iterating on ideas of the future or executing tools that can help to evaluate what kind of pathway can be best suited.

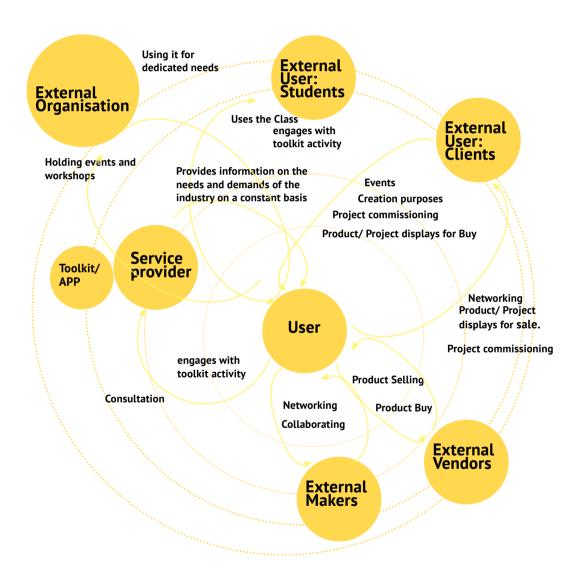


8. Skateholder's Map



10. Relationship Mapping

Fig 2: The relationship mapping is looking at how the service concept is creating its relationships with the key actors: service provider and the user and their proposed relations.



Reference: Stakeholders Map: Stickdorn & Schneider (2010).



Mud pot.(2017)

11. Personas

Lisa Turner | 30 yrs

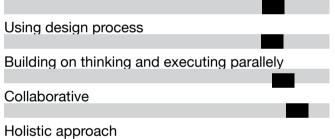
Service User

Traditional/Contemporary Potter Handmade centric with technological advancements Interested in sharing skill and task

Interested in sharing skill and task Learning effective thinking systems

Makes me an all rounder. I can use it at my time and convenience. Its accessible, affordable and effective.





Iterative and generative

Technology

Gains

- Needs holistic service that looks at her thinking, making, executing and distribution
- Approach is generative and evolving.
- Develops her own processes with aid of the service
- Independent and looks at sustainability ways to create opportunities
- Expands skills beyond her dexterity.
- Open to a behavioral change.

Pains

- The understanding of the service is hard to comprehend
- Success is slow and time staking.
- Collaborations



Customer map

Service acknowledgment Service consideration Service Acquisition Service Implementation Read the Manual through Physical/ **Service Entry** Word of mouth Initiation Information Execute the toolkit. Digital platform Website systems building Engage with App. Toolkit Organisation Recognizing the need to One on one demonstration join the service Implement the process in your work. Create workshop systems with students. Give access to students. Share resources - ask, give and exchange Document work through images and View opportunities given by the service provider. Create your project for online viewing. Find the makers in other regions. Collaborate online with other makers **Service Contact** Create inventory. Document images by date. Click an image and find similar images by hastag or image recognition Search for makers by region

Invite Commissioning clients Look at opportunities and

add members . Invite

Web addons

collaborations by the service provider Imageboard - add and view images

Reference: Stakeholders Map: Stickdorn & Schneider (2010).

8. Personas

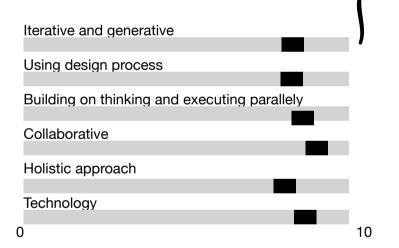
Hans Rimmer | 45 yrs

Service provider

Has been in industry for 15 years working in operations and management for craft organisation. Open to innovation with the crafts industry.

Is not looking to promote the "popular" and current notion of craft

My service is for craft makers who wish to explore the future and address the present in an effective way.



Gains

- Needs holistic service that looks at her thinking, making, executing and distribution •
- Approach is generative and evolving.
- Develops her own processes with aid of the service
- Independent and looks at sustainability ways to create opportunities
- Expands skills beyond her dexterity.
- Open to a behavioral change.

Pains

- lack of customers.
- Lack of financial support.





The maker. Lisa is at a stage where she wants to build and create opportunities for work, business and her self.



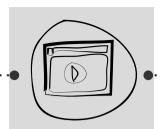
As she is a part of a ceramics group, she gets an email for the group manager that there is an openday to learn about a new service.



She sees the same service on a craft websites as new services



She goes to the orientation where she meets her fellow makers because she wants to get a first hand experience



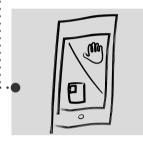
Lisa's friend Mike has known about the service as he had accessed the service website where he saw an introductory video.



The service comprehensive system, physical toolkit with a supporting platform and a separate digital interface that helped makers in their pre and post creation service of a potter.



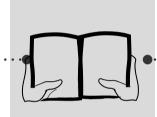
She is excited about the service as it is industry specific and immediately sign-ups in the form.



Since Lisa is given two options for the service. She can order it online and use the complimenting digital inteface or she can use the whole service through the digital interface.



Lisa orders the toolkit as she is more familar with it and physically use the it at the event.



She reads the manual card and places the cards over the template.



She sees that there are 4 coloured cards which instructions on them. There is a category card stating the process stage. The activity card which has four tasks consisting of different design tools catering to the pottery community. S he sees that topics cards can be used context



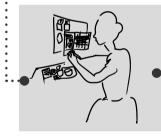
The category cards are varied. The first stage is the Think stage. This stage build and structure ideas. The second stage called ideate focuses on generation of ideas and decision making abilities by co-working and so forth



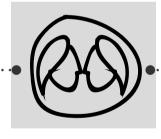
She picked the "choose the right glaze"as a topic activity and used the mix and match card from the ideate session. This helped her list a range of glazes and match the glaze to pots she made



She picked social media and wrote down key words according to the reference and developed of relevant words she could use on instagram.



She was simultaneously using the priority chart by adding her stickers and creating an inventory.



Lisa also executed a few tasks with Mike as they had cards which would be collaboratively executed.



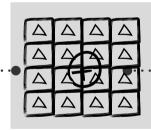
They were very excited and immediately started taking photos and uploading it on the social media.



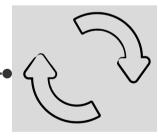
Lisa switched accounts and used the digital option. She was amazed with the list of categories it had.



Class wizard helped you created a digital class. Each class can be a project. You can images, videos, tools, techniques, glaze, colour, kiln and any option you would like to add needs. Add your students. Search your class through their name or date. This encourages accessibility, efficiency, member solidarity and collaboration.



Imagebaord gives you an option of making a visual gallery by topic to document ideas . One can also invite clients to create their own image story.

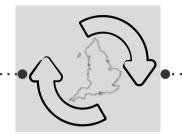


Share hands allows the maker to ask, give or exchange resources.

Service Journey



Document allows you to photograph, search image by date. Click an image and find similar images by hastag or image recognition



Service provider can create feeds of opportunities and collaborations happening in the united Kingdom and globally.



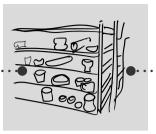
Lisa also realized that she and Mike can use the collabo option and create outcomes together,



Create your project for online viewing.



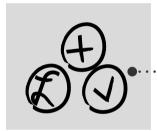
Lisa can search for makers by their region.



Lisa was happy that she use keep her inventory option on regular basis to avoid wastage and misplacement



The service allows her to go from beginner to an advance level.



Lisa asked Mike how was it using the digital journey of the toolkit. He said he was quite comfortable, inexpensive and accessible at any point!



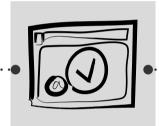
He downloaded the cards and could easily map and document his journey digitally.



He sent Martha, a fellow user, a few cards they were planning to work on together. Lisa was added to the group as her interest grew.



He felt that he was on the next phase of craftsmanship. He was able to retain his original skillets but upgrade his thinking and delivery service of his products.



His instagram page was getting more likes and followers than before



One of hidden features is that service provider can gage the data being uploaded to make changes and add new features.

		Aware	Acknowledgment	Pre Initiation	Initiation	Engagement	Engagement - Interaction	Disengage
	Makers Actions	•User gets in contact with the service.	Access website/ face to face to get information on Physical toolkit/ Access website/ face to face to get on the Digital Interface	Order the toolkit. Create Account	Receive the Toolkit Read the Manual. Login Read the Manual.	Read the Manual.	•Execute the task •Add to the priority list as a group •Ad to the priority list •Add to the prio	Have executed processes. Have many priority lists- Ongoing and Archived Hake new collaborative groups Add new students and clients Organisations are executed this toolkit with focus groups
	Touch points						-C	Connections forms • Toolkit Chat App • Digital app Collaborative models Print
• Line of Value	Requirement	To create easier accessibility and connectivity with users	priorities and needs to use the service	•To build easy initiation in to the service.	Validation and trust.	Exploring new ways of thinking and executing Beginning to build parallel pathways.	•The main aim is to focus on the activities provided in the toolkit and building on the various journeys made by the maker	
•Line of Visibility	Front Stage	Contact/ Review of Data Email potential organizations/ makers Creating workshop	Access the website for viewing Fill out the form at the events for sign ups or having a consultation	*Acesss to ordering Toolkit *Add address *Details-Confirmation *Read the manual *Creating an accourtive viewing the introductory video.	Using the instruction Using the instruction	*Using the instruction manual to execute and Placing the cards and setting up *Usewing the options for digital options. Understanding that there are two pathways: Digitized toolkit and digital app	• Using the toolkit with the permutations and combinations. Creating outcomes. • Adding the values on the priority list. • Reading the cards online, downloading, adding to wish list, printing and sharing the	Making digital and physical projects Viewing many priority lists- Ongoing and Archived Suilding collaborative groups nitiating the journey of new members Generate revenue and effectively
	Back Stage	Sending email Making arrangements for the workshop Print and web engagement	Registered physical booking data. Email to clients through software Allowing the website page to open for information.	Registering the online application. Approved Email sent for confirmation. Details for tracking package Registering the online application or creating an database for the account Playing the video	Usability of the interface to showcase options	:Showing all the app and its technical features.	•Registering the values on the priority list. •Registering the values •Uploading workshop data. Add new	Jpload and make posts. Add hastags ind external videos and feeds
•Line of Interaction	Service provider action	-Creating "Product- engage- ment selling points -Contacting potentials users -sending -Conducting workshops -creating social media buzz -Role playing scenario with	Registration application Contact the courier service Conducting a few consultations sessions Sending personal email for contact.	Building users. Gathering information to add. Viewing the policies are in places for the new users. Add opportunity features as a regular task Regulating usability	The service providers is attending one on one char sessions. Drawing attention by bringing references through blogging and social media. Gathering video value for stalwarts in the industry to build trust.		• Adding addons and options for the digital system. Looking at the technical viability of the functional. • Adding examples for the viewers to understand how the system would work. • More opportunities • Add man power • Build an physical space policing and puttinh ethincal constaimts	•••••••••••••
•Line of Assets		Building opportunities and future connections Creating a unique comprehensive system Connecting people and collaborators Pilot for other crafts	Building trust and liability Give the user to build their own knowledge systems	The service provider can build the service as multi functional. Creating a strong introductory movie narrative is very crucial for the service. The users are starting to build faith with the service.	•There is a level interrogation by both the users. The design process is about to take off for both the	Makers are identifying their possible journeys of us- age. This is a key stage for both maker and provider to build accountability and assess the level of future engagement.	• The makers skills and needs are getting addressed by having the ability to construct a design centric flow in their creation process. • Relational journeys are emerging as student, clients and organizing are extended service users.	Collective group of makers have formed. The process is very responsive and can evolve through time. There is a natural execution, iterative and follow up journey that is building btween the maker, service provider and external users
	Barriers	Lack of validity and trust for the users to begin with The initial systems and cus- tomers might not be in place	•The website has difficulty in loading •The conversations are not convincing . •The registration application process is slow.	The toolkit doesnot reach. There is a tracking courier and the service provider have an issue with the communication. The language of the interface do not appeal to user. There is an immediate lost of interest.	Cannot understand the system or the value Consulta Creating social media buzz giving negative comment			The service has not worked. The collaborations are not lasting Th opportunities feed are not useful.
	Revenue	Prompting users to buy the prod Proposals for investors to show profit Proposals for investors to show profit Proposals for investors to show profit Proposals for investors to buy the prod Proposals for investors to show profit Proposals for	luct that there is possibility for revenue and	Maintenance cost First 50 toolkits are sold for free and then then	e is a chargeable fee on the physical and digital interfaces.	Fee for adds ons. Investors showing interest. Using products of certain companies can be a sponsor Overhead costs		Toolkits are being purchased, The funding and the investment has doubled. The target set to sell the toolkits has been achieved.

Service Blueprint

13. Business Canvas Model

PROBLEM	SOLUTION	UNIQUE VALUE PROF	POSITION
Lack of skill transfer. Isolated pockets of innovations - no transferable knowledge system. Lack of awareness and value. There is a disengagement or not enough recruits. The aging workforce and the lack of new recruits is leading to the extinction or endangered crafts. The uniqueness and value of a craft is not be promoted properly. Authenticity questioned at times. The emphasis given on design rather than technique now. The lack of apprentices and opportunities to be mentored by senior craft makers. The poor networking facilities amongst the makers.	Create spaces for a comprehensive system which would aid the maker in the creation process. Explore ways that the maker can capture and execute their explicit and tacit knowledge in a parallel design process Develop digital and tactile medium that can serve purpose and needs for makers with different skill sets and requirements. Incorporate key needs - idea generation, developing your need, executing your idea and dispersing you r	system that focus on one particular cr by integrating k nuances which cobe replicated to oth forms The platform which is multi disciplinary commended by the companizational level. It is complete integrated system the introduces the malton a new innovation.	aft key can her ich can el / ete hat ker on can
Lesser knowledge of business	COST	REV	'ENUE
needs. Mass manufactured products gaining appreciation due to comfort of price and availability.	Resources - Raw material an Physical spaces Management costs Overheads Travel	d Human	

LICEDC	CLICTOMED CE CAMENIT
USERS	CUSTOMER SEGMENT
- Potters -	Buyers
Traditional vs Contemporary	Individual
, ,	
	Retailers
- Organsations	
CHANNEL	-
CHANNEL	-
Commissioning	
D: .	
Direct	
Pusiness to Pusiness	
Business to Business	
Online	
Offilite	

Sale of toolkits	Events in sponsored by the service	
Funding	provider	
Crowd sourcing	Consultancies	
Sponsorship	Posting by users for specific opportunities	

Reference: The Business Model Canvas. Alexander Osterwalder (2008).



14. Pre-post service model

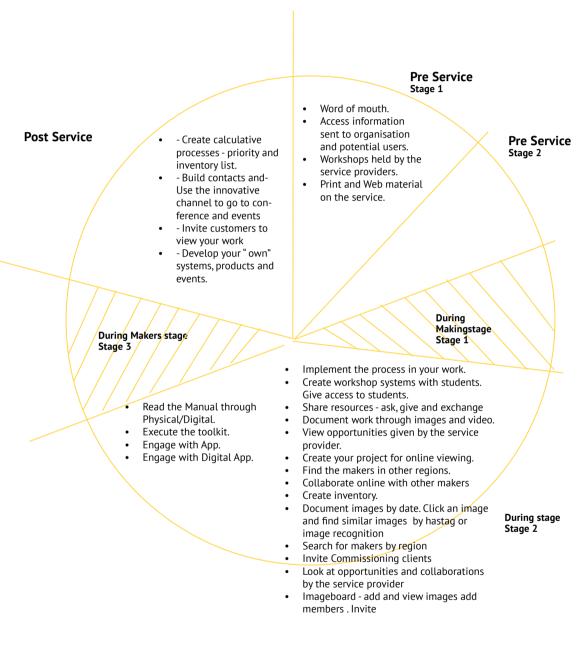


Fig3: The pre and post service model has been divided into parts;the pre service(stage 1) which looks at the actual initial engagement between the service provider and the user, the pre service(stage 2) looks at the awareness and engagement before the user starts the product engagement, during the service (part 2) is mainly about

111

product engagement, during the service (part 1&3) is the actual creation process of the maker which is interspersed with the model and the post service is the outcomes of the services and how the maker utilities it.

15. Benchmarking



Designer and urbanist Dan at 22nd Cross-Government Design Meetup speaks of mixed reality cities - version where you can view different scenarios through AI. Creating a new way finding to use digital interfaces.

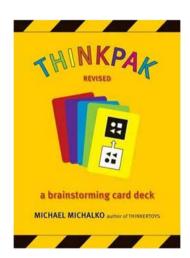




Coloro is a company that builds colour systems for users to understand the codification implementation of colour.

This is mainly for users to see colour in its right context and have colour for decision making purposes such as fashion trends or merchandising.

As one of their services, they hold workshops which inform and engage in participatory activities to experience the knowledge execution by real time.



Thinkpak, a creative-thinking and solution finding card set developed by Michael Michalko. They are pack of

56 cards which be used separately and with clusters within a array of scenarios. By the combination of cards, the user is able to enhance their thinking awareness, skill to generative innovative outcomes.





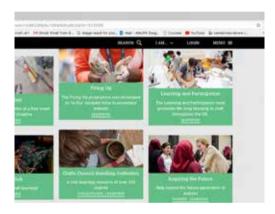


BBVA Design facilitation cards can help organisational thinking. The focus is on how to building and sharing better pratcies amongst a team. Team members adopt roles and then execute the task on the cards. This was showcased at the Service Design Network conference in Madrid, 2017

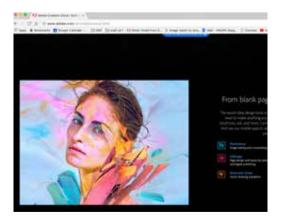




We work is a service that provides collaborative workspaces for individuals or companies. They have provided an integrated digital systems that allows the users to function from all aspects whether its amongst peers or the management.



Crafts Council is an national organizational body that supports and shapes the contemporary crafts in the UK. The organization empowers the crafts-makers through opportunities found in skill, collaboration, partnership and so forth



113

The abode creative suite run by abode is a collection of requirement and aids for designers and artists need to use in order to explore the outcomes. It is found on a collective platform where different resource are placed for the user to choose and use accordingly.

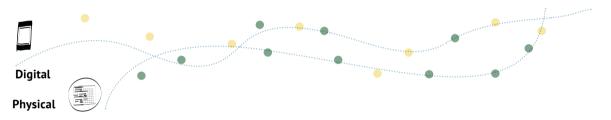
16. Outcome

The mobility of this concept lies when both design and user needs are in conjunction. Kraft() talks about the how it is important to incorporate new but also existing manifested needs. Insights on page 39 have showed that there is a need to view the meaning of craftsmanship from an individual to collective.

The maker will be in his/her democracy to find stimulation, enlightenment and conviction to experience this new practice. Reason et all() suggests that the user must achieve all levels of the experience and not only the purchase.

To create different service journeys, interactions and priorities. In the diagram below, The two touch points aid each other and can define each experiences but also interact with other. Chris Ridson in Kalbach (2016) said users dont think in different levels and that they are alternating between levels.

This is an aspect I wanted to incorporate by making seamless system that bridges both the physical and the digital and works from the creation to production.



The service has two parts two it:-

1. A physical toolkit with a complimenting digital platform assists the potter through their creative, organizational and collaborative needs.

Why:

- The physical outcomes is closer to the experience and environment of the potter
- It involves design thinking specific to the technicality and language would be based on the potter.
- their own system easily as there will be points of reference. El-Haik and Roy interpretations (2005) says that it allows the users to comprehend more meaningfully and hence the user will be open the given usage and their own interpretation.

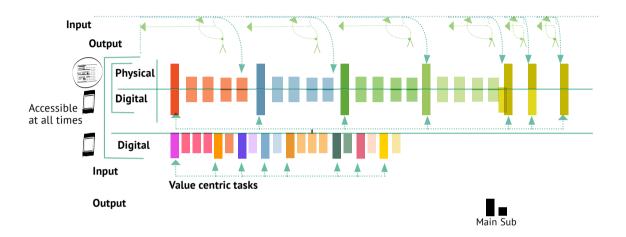
2. **The digital platform** allows craft makers to use interactive interfaces for easy accessibility and communication in order to facilitate, conduct, document, build profiles and collaborate in one system.

Why:

- Catering to the needs of the potter was to show flexibility of usage and accessibility in the environment the potter.
- Redefinition of user experience which is the ability to use a new mechanism for activities which functioned differently.
- Working across transferable systems.
- Building collaborations in separate locations

•





In the diagram depicts the service system flow. There are two levels of service interaction: Digital and physical, physical is sub-categorized with digital and physical.

Both the levels are defined by tasks or activities which are executed through the service. There is the input and output of values of the tasks.

17. The Service

Think.Craft.Play is a service that caters to ceramists by allowing them to think, ideate, develop and disperse their ideas in to systematic process. This process is then crafted and executed by using the idea of play in design.(please prefer to page 88)

Service Touch points

1. The service concept of the physical toolkit is allowing the craft maker to create their own process by aid of the physical and a supporting digital tookit.

Inspired Parameters

The main structure was inspired by:-

- 1. Bono(1992) Six Thinking hats model which suggests that there are six variating categories or topics which are colour coded. This activities are illustrated and discussed. With such definitions, the directions of the cards can be varied yet interconnected.
- organizations to create and innovate outcomes.

Highlights

2. Idea's Human-Centered Design Toolkit Build individual and independent thinking has developed a toolkit that empowers abilities. Creating your own process through iterations.

> Value building by creating effective relationships through collaborations and outcomes

> Tactile and demonstrative as craft processes.







The physical toolkit service includes:

1. Developmental cards - to execute the tasks -

Category - to define the phase, activity to define the task and methods to exeucte a task and topic cards to provide context.

- 2. Organiser to select, sort and document the task for effective execution.
- 3. Priority List to document each task for record purposes and to track the process created. This is given with stickers of each icon found on the cards as a way to create the list.
- 4. Manual quide
- 5. A box and flaps to help manage the toolkit.

It is a **card based toolkit with the same system transferable on the app**, starting with four categories which are the main phases of the service. They are:

- 1.Think To build and structure ideas.
- 2. Ideate To generate ideas.
- 3. Develop the formation of concepts
- 4. Disperse disseminate the created ideas in an effective way.

Each category is further divided in to four activities. Please refer to appendix. These activities are symbolic of the category they are associated with.

All cards describe the intention of the task or topic

1.Think:

Brainstorming. Polaine et all (2013).

Process Making. Stickdorn & Schneider (2010).

Journey Mapping. Stickdorn & Schneider (2010).

Matrix Map . Stickdorn & Schneider (2010).

2. Ideate - Mix and Match

Concept Creation. Stickdorn & Schneider (2010).

BCM- Business Canvas Model

Alexander Osterwalder (2008).

Co- Creation Workshop. Sander and Stappers (2014)

3. Develop:-

Scenario Building: Stickdorn & Schneider (2010).

Role playing: Stickdorn & Schneider (2010).

Prototype. Stickdorn & Schneider (2010).

Probable futures. Voros(2016).

4. Disperse :-

Opportunities. S.W.O.T. Humphrey (1960).

Digital age

Packaging

Branding

Above: Service outcome: Toolkit

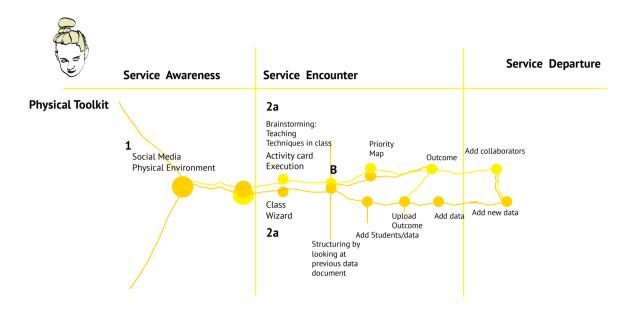
Left: Digital Toolkit







19. User activity encounter points



Digital Application

Samples

Торіс	Activity Cards
Classes	Process Making + Concept creation
Workshop	Process Making + Co creation workshop
Technique	Journey Mapping + Concept creation
Clay	Journey Mapping
Making a collection	Process Making + Branding
Choose a glaze	Brainstorming + Probable futures
Client Interaction	Role playing + opportunities
Setting up a business	Business canvas model + Matrix Map + Branding



torming ACTIVITY TASK Mix and Match

ng of what they ey might be in.

exercise helps you to sations to understand y os you improvise with crea

es: How would you engage in a sation with a buyer.

What:
Using various related or unrealtaed elements
to building ideas.

Why:
This helps your creativity expand and identify new ideas.

Examples: Matching the right glaze with the right form.

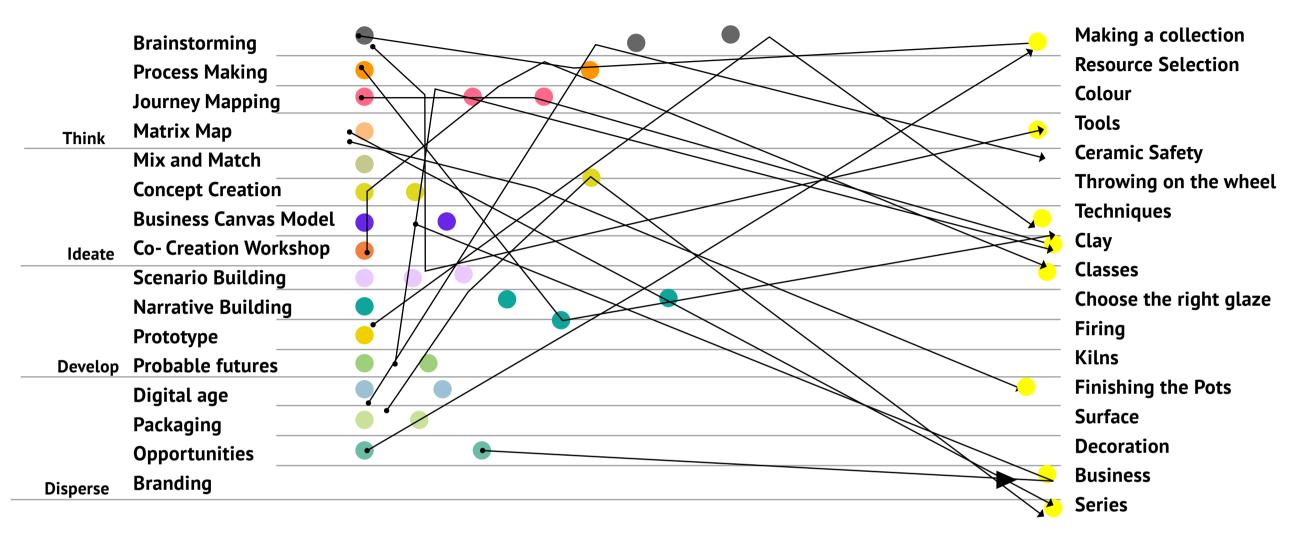
0000

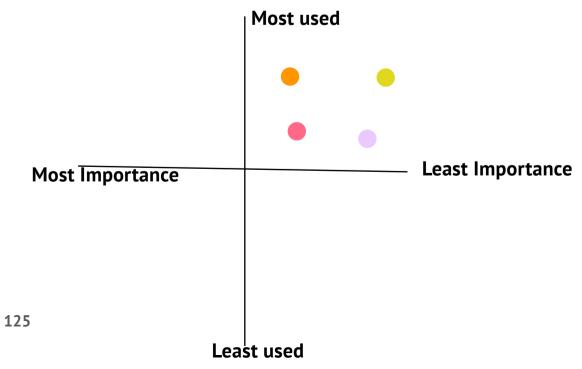


Probable Usage.(2017)



Mapping various cards with topics







20. How does it work



Stage 1

Read through the cards carefully.

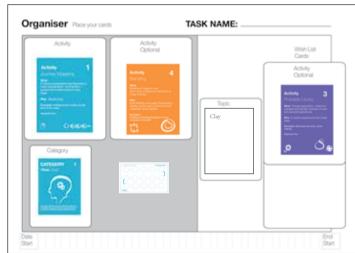
- 1. Select the category of activity you would like to start with.
- 2. Select the activity.
- 3.If you would like to add an additional activity card to your tasks, place the card on three.
- 4. Topic cards are added to create context or reference to the tasks.
- 5. If you have any selected cards for the future, you can lay them on the side.
- 6. Add the start and finish to log your progress.

Stage 2

For documentation and recording of the tasks for future purposes. Use the priority list.

Use the stickers of the cards selected from the organizer to record and evaluate the progress.

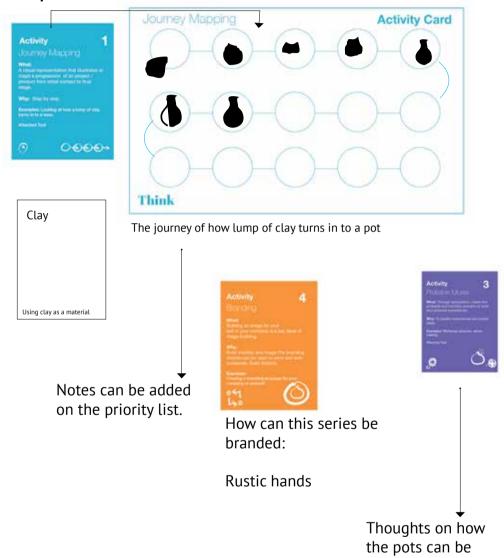
Add the start and finish to log your progress.





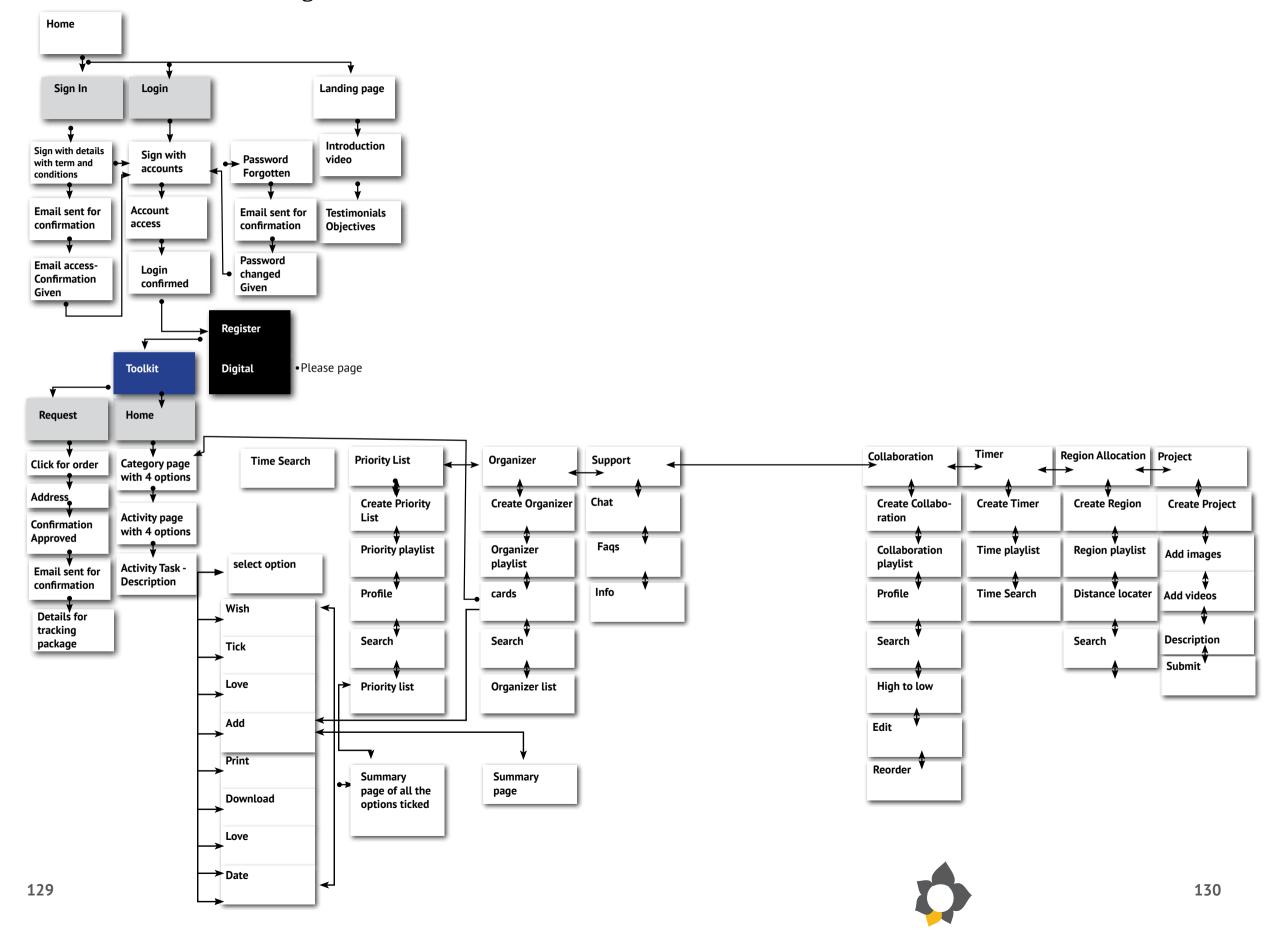
Clockwise: Organizer and priority list.(2017)

Example: 1



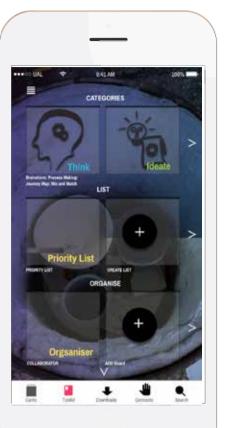
decorated or sold

21. User Flow chart of Digital Toolkit



22. Digital Toolkit application







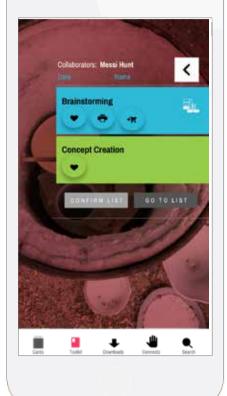
Menu page -Options for all the pages One can navigate between the physical and digital interface

Category and activity:
Once you click on the category page,
the activity cards will appear
Clicking on the activity desired, the
information will appear.



Sign in Log in





Activity card page: Along with the information you can like, share, add to priority list, download and print.

This action allow you to work from any location and easy collaborations by sharing

This is the summary of the cards chosen, you can delete edit or confirm to create the priority list.



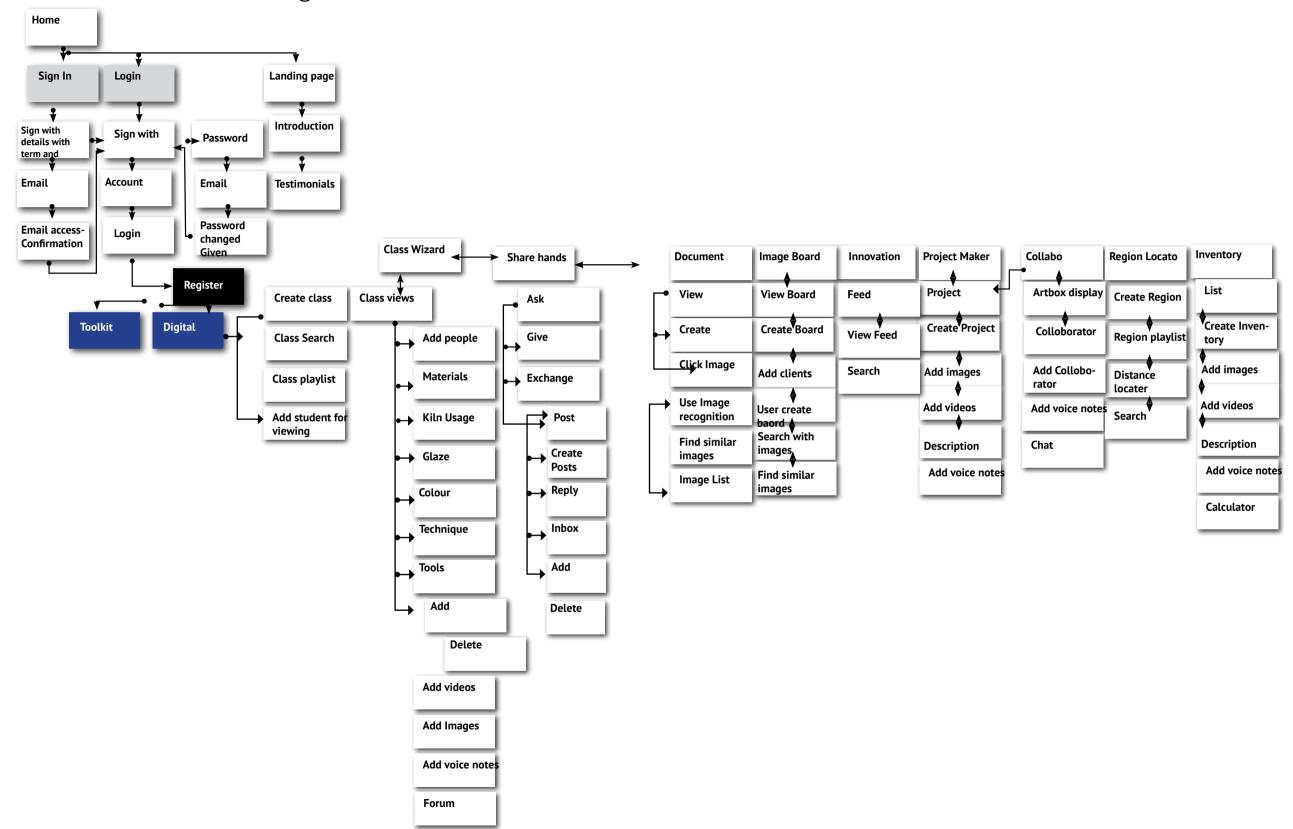
Image of the complete menu bar



Priority list - Summary of the cards with editable features. There is a date feature for tracking the progress.



23. User Flow chart of Digital Interface





24. Digital Interface

1



Class wizard helps you organize your class. Make class projects Add students. Search



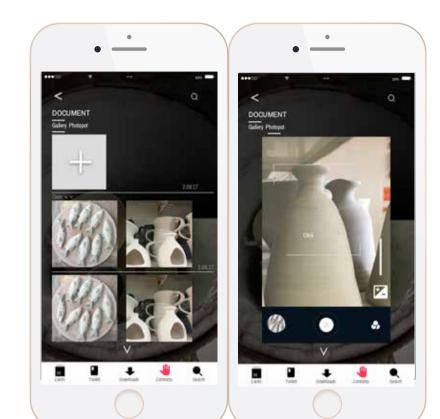
Have your lists of requirements with images and videos, tools and technique.



Have your lists of requirements with images and videos, Material, Kiln Usage, Glaze, Colour.



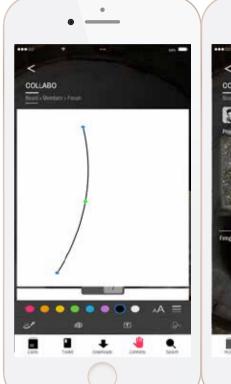
Class play list of all the classes.



Document images and video. Search by date. Instant clicking facilities. You can search with the possibility of image recognition.











Online collaborations through on line art boards. Create your projects. Add members. Add, share and like. Make your requirements for the project like the class options.



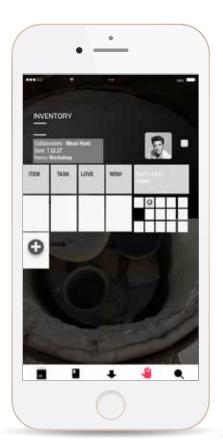


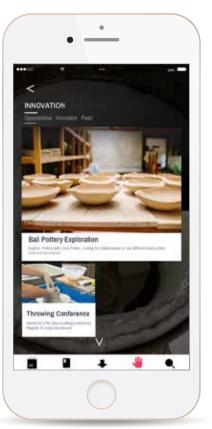




Create a visual image board for creating better conversations. This is for the users and their buyers foe the purpose of commissioning projects where dialogue for decision making can be through a visual aid.







Help keep inventory for resource so there is less wastage and things can be monitored.



The service provider will be feeding in opportunities as one of the main insights stated that there is a lack of awareness of opportunities.

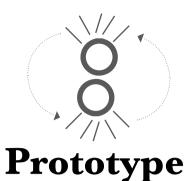
This is an exchange platform where the potters can share, give and exchange resources.





This is way that the potters can search for potters in their own region or else where by using the locater option.







- objective addressing your idea?
- other tools for iteration?
 - What is the response of the

Objectives The prototype needs to be Methods evaluated against the original • How well is your aim and research statement an objectives.

Identify the opportunities and Identify ways to prototype and future changes with users as co testers.

> users? The designers need to have defined the concept clearly for feedback.

1.Paper Prototyping

2.User Evaluation

1. Paper Prototyping

The measurement of whether the process centric concept for potters to can be useful is only based on judgment and testing.

The sessions started with hand drawn and low fidelity models to semi- high versions. Synder (2011) values the paper prototype having lesser features than a digital one but says it gives the user more chances to free and interactive. The feedback is less demanding as the user knows its work in progress.

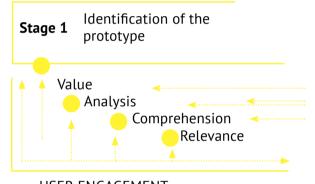
The prototyping sessions were with potters and non makers who were asked to understand the physical and digital interface by judging and give feedback.

Main objective

- To identify and validate the nature of the concept.
- To co-evaluate with users the gaps and opportunities of the idea
- To develop any new directions if required.
- To assess the fidelity of the prototype

Fig 1: These are models that show how the evaluation and feedback session with different users.

Framework for the prototyping session.



USER ENGAGEMENT Stage 2

Stage 3 Feedback and evaluation

Evaluation Criteria for users.

- Easy comprehension of the system The co-relationship between the two systems.
- Basic usability of the interfaces.
- If the decision making techniques are
- The content is catered to the Ceramic industry.

Profile of users

- Peer to peer evaluation
- Evaluation session with Pottery student
- Evaluation session with established potter.
- Evaluation session with Ceramist Business maker





2. User evaluation

Participant 1: Peer to peer evaluation

This was one of the first phases of the prototype

- Was able to identify values of the concept.
- The concept was appealing and quite extensive.
- The user said to simplify the digital visual look and make it appear as easy.
- Make the terminology simpler for potters.

Participant 2: * Pottery student

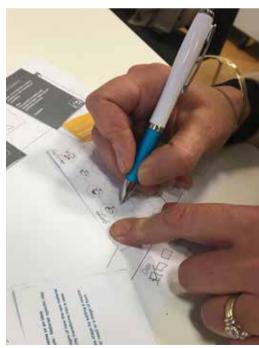
- The concept was a good idea all in one.
- Make topic cards more descriptive. This was a good insight as it worked well in the next level of prototyping.
- The system was understandable but needed to be simpler. Add some examples.

Good for potter groups - collaboration





Participants giving feedback.(2017).



Participant 2:* Established potter

This was an interesting session. This participant has been quite prevalent in my project so her feedback was quite crucial. This co - evaluation session was more directed to the usability of the prototype.

I began by asking what did not work. This was an easy way to open up the conversation and bring in an element of trust and value.

- It is a comprehensive set which required the user to fully understand the product before use - an introductory video - visual guide was good.
- She thought the topic cards were really effective and since they were context specific, they could have other uses apart from the toolkit like engaging with the students.
- She said the relevance of pottery in the service was a good way to build comfort and make it more user centric.
- The needs of the service were very specific like workshop creation or inventory.
- She said that she could see uses it on a collaborative front with other potters.
- It is a good toolkit to have with people of the same skill.
- Examples were good to have.

Main points

- Relevance
- Context specific
- Holistic
- Brings change

Participants giving feedback.(2017).









Participant 2: * **Business and craft**

The session with this participant was reflective as well as construction as the participant was not a maker but dealt with the management side of the crafts makers business.

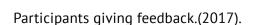
As mentioned earlier, the system was very comprehensive and dealt with all the aspects of the potter.. "" I hope it doesn't scare people away".

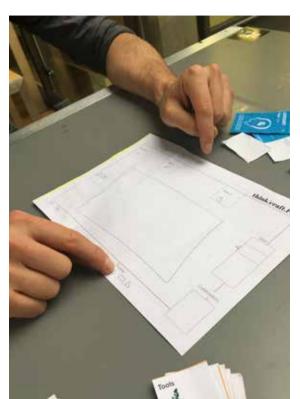
- He looked at the approachability as a prime process. The presentation of the box was as important as the service. We discussed that it could be presented in an envelope or hidden.
- •Levels of expertise should be added. I said that it was in the scalability of the service. He said that it was one of the main features to initiate dialogue between the exercise and user.
- He said the idea of time should be a key feature and not secondary. Time for potters is crucial. A series might take longer to create since the first batch as failed or the right clay cannot be procured.
- He said this is good for potters who could be beginners in the business or people ready to explore.

Main points

- Time
- Levels of expertise
- Presentation of the toolkit











Delivery

- What are the methods we can use to measure impact?
- Can this be a pilot for the future?

Objectives The deliver phase looks at a final developed stage of the concept. The designer has to create an impact, measure system to forecast the future usage of the service.

Tools and Methods

1.Measure

2.Evalution

3.Impact

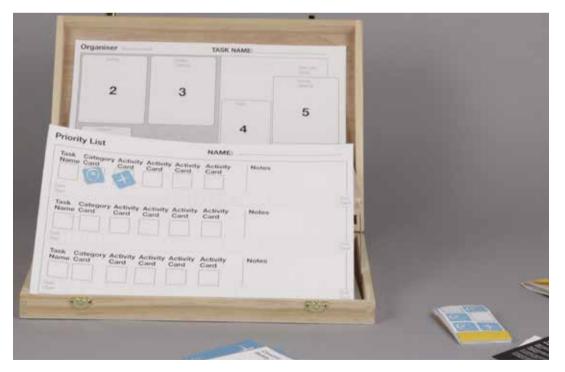
4.Finance

5. Scalability and Sustainability

1.Final Outcome













Final Outcome. (2017)

2. Measure

Value:

There are various levels of value that this service provides. Firstly, as a service, what am I provided for the makers to engage with and are the insights that I have encountered are they been fulfilled through the service, These are the primary sets of values that the service will come at

The kind of outcomes of the executed activities and the uploaded data on the digital app will be next set of the values for measurement. It is the non tangibility and tangible value systems that establish the foundation.

Tools:

The makers have given many various kinds of methods and tools to engage with . The measurement of the understanding the tools will lie in how the service works. The impact can only be assessed once these executed tools have shown potential to work in an individual and organizational level.

Experience: The maker can measure their experience by the various activities the use in terms of the level of engagement and participation. The level of involvement the maker has with the service and the providers is the measurement.

New requirements:

The service provider can judge posts and requirements through forums and inputs to the digital interface to look at the potential perspectives of the service.

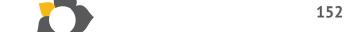
Time:

Time is one of the most purposeful requirements in th ceramics business. Processes and techniques take months to execute or might go to through an seen eventuality which might stalk the process.

The service provides an indicator for the maker to judge and make decisions with reference.

Level of expertise:

There are different level of expertise that the makers can choose to execute..This is measuring of how the level of expertise and skill.



3. Evaluation

The role of evaluation is a necessary part as generates value in the framed process. It validates and reaffirms the insights and practices that makers are using the service as a tool to conduct all the given experiences it offers, subtract and add any new uses or simply to asses how the mechanism working,

The services seeks to have an evaluative framework where the maker can uses tools such as the priority list which is a way to record, asses, label and document the activities that the makers is conducting. Foglieni, Maffei, and Villari(2014) says that evaluating an individual process or execution is important to see how the craft makers can function in a given time

frame of the task they are executing and to see the level of quality and efficiency.

Digital upload of the priority list is also a way for the service provider to track and view the impact of the results. The users themselves can evaluate their processes by executing different tasks and record those tasks on the list to see the difference of task value.

Understanding Skill

Approach Possibilities

First level Initial stages of interaction - and evaluate your level and understanding

Designer aid - first level - with samples

Second level - The approach to execution.

Possibilities

There is the evaluation as a project and a concept

Fig 2: This shows how evaluation can be conducted by different users and at various levels.

4. Impact

Mobilizing independence amongst makers to shape their thinking

"Design Thinking isn't just a method, it fundamentally changes the fabric of your organization and your business" - One of the key leanrnings of David Kelley, founder of IDEO and the Stanford d.school.

The impact created by this would it would re change the thinking pattern of

Better collaboration and resource management

By creating appropriate touch points to cater to the insights of makers, communication and business requirements were addressed. This will result in creating intended and organic connections to foster skillshare and resource exchange,

makers to make them more self sufficient, introduce new practices and develop philosophies for them.

4. Finance

The financial structure is dependant on the number of toolkits sold if they were to be priced at a later stage. The target set on how many solutions were to be sold would be a way to gain revenue. However, the immediate source of income would be sponsorship and any kind of produt visibility by other companies.



5. Scalability and Sustainability

2 YEAR	5 year	10 years
To have level of experience:	Adaptable to craft, in regions and language.	Adaptable as a model for
Beginner/ Intermediate/ Advanced	Product range and a cooperative run by the members.	education/ organsiational development
Creating multiple seminars and events	Having a recognized craft mark -	
with seminars that can build relevance and trust.	Having a board(committee) that looks at the policies of government and translating that to the crafts-makers on a regular.	
Participatory workshops to evaluate the system on a regular basis		
 Examples - Online tutorials and examples for all the activities. 		
· Looking at partnerships.		



1. As a designer

The service design intervention in this project opened up allowed questioning to be more effective and meaningful. By using tools like How might we be, I was able to use the insights found through the research as valuable data to probe more.

As a service designer, I wanted to build experiences for the makers that give them the ability to use their process as the primary point of associations and they build on those parameters.

If coupled appropriately with methodical design research, analysis, and intervention, the makers can re-structure his/ her ability to think and innovate, not to mention, the relationship within the community, and the various policy makers.

Manzini(2015) discusses that the outcome of the project is when the process is aiding and all the participants have the freedom to design in multiple directions. The premise of my project was to use service design as an byproduct to boost or nudge the craftsmaker thinking ability.

I might began the project with a mindset of a student but I can say that I am existing as a designer in making. I learn t you to pragmatically think when opportunities looked bleak. For example, finding users is always a challenge. I had no users for my codesign initially. I had emailed all possible options who were related with pottery and I was approached by the southern ceramic group. In failure, there is success.

Lastly, the approach through empathy is one of the biggest learnings I have gained. When they are human connections and values, it is very important to connect with the users and their personalities. The insight will only emerge when the user is willingly to share their experience in totality.

2. Conclusion

As a conclusion, this project inspired by craft makers is about human centered attributes and relationships which led to creating a process orientated solution from the experiences of the craftmakers.

The notion of "process" is largely apparent in this project. There are three major points:-

1.lt is seen in the user research where user research shows the nature of processes used by the makers themselves.

2. How am I creating my own process through service design. The intent of the methodology was finding avenues that could be created by design process and the kind of value it can brought to the project.

3. How am I am bridging the idea of the makers existing process with the design process I am using.

I was able to create co-process between the makers and myself. According to Lawson(2005), the traditional form of process used to put the designer on the tip of the pyramid. However, practices now involve the user throughout as a participatory journey, making the solution more catered to what the user requires.

The topic was investigated from macro perspective of what is the nature of craft and its key relational situations to exploring micro aspect of how a specific industry with the crafts works. One of the conclusive insights was that opportunities in one region can act as a hindrance in another

Developing a service that is inclusive and expendable at all situations was a key. Craft as a form which relies on adaptability because its dependent on various factors. How do we achieve that flexibility without making the craft maker feel "uncomfortable" with a service is about creating your own process.

Sanders and Stappers(2014) discusses how play can be used in this circular format of make - tell - enact. The main basics of this service is that there is continuous iterative process of thinking, iterating and developing ideas that is focused and engineered by the maker.

This idea leads to making the crafts independent and authorative for their future and makes about the change internally to affect the external environment.

Acknowledgment

I would like to began this acknowledgment by thanking all craft makers who have inspired me with their stories and passion.

Hena Ali, my tutor, I would like to thank you for believing in my "gaps and challenges" so I could be proud of what I have achieved today.

I would like to thank Cordula Friedlander for the support in terms of my work and as a maker.

I would like to thank - Phillipa Rose, Silvia Grimaldi and Lara Salinas for all the insightful conversations that have helped me.

A huge thank you goes to - Freya Bramble and Rebecca Gardiner by letting me into your world of craft.

I would like to thank Sabrina, Greta, Grant Gibson, Sangeeta Dutta, Christian Gabriel, Casper Arboll, Toby Brundin and Jesus Felipe for allowing me to utilize their valuable time and insights for the project.

Thank you for Francesco Mazzarella for guiding me in so many ways. Much appreciated!

A special thanks to Anish and Neha for

being so optimistic all the time!

I would like to thank all my class mates for making this journey less intense!

Thomas and Signe - my Csm crew! What a talented bunch are we! Thank you. Lindsey, I am so happy we walked together at every stage of this course! Shaika - Thank you for all the conversations! Yayun, to my very intelligent and kind friend, you have been so helpful!

Last, but not the least, my family and friends from here and overseas who have been so encouraging.

Thank you.

Bibliography

Barry, R., & Jobson, R. (2016). The handmade life: a companion to modern crafting. New York: Thames & Hudson

Yanagi, S., & Leach, B. (2013). *The unknown craftsman: a Japanese insight into beauty.*New York, Kodansha USA.

Sennett, R. (2008) *The craftsman*. New Haven, Conn.; London: Yale University Press.

ICON(2016). The future of craft. https://www.iconeye.com/design/news/item/12557-the-future-of-craft.(Accessed: 8th May 2017).

Gov.uk.(2017). https://www.gov.uk/ government/news/creative-industriesworth-almost-10-million-an-hour-toeconomy. (Accessed: 23 th October 2017).

Masso, G. (2017). *Creative industries grew twice as fast as UK economy in 2015-16*. https://www.thestage.co.uk/news/2017/creative-industries-grew-twice-rate-uk-economy/.(Accessed: 28 th November 2017).

ADAMSON, G. (2013). *Thinking through craft*. New york:Berg.

Birmingham Mail. (2015). The creative industries generating billions for West Midlands economy. http://www.birminghammail.co.uk/news/midlandsnews/creative-industries-generating-billions-west-13144449. (Accessed: 6th October 2017).

Creative & Cultural Skills.(2011). *The Qualifications blueprint*.(2011). http://blueprintfiles.s3.amazonaws. com/1319716392-Qualifications-Blueprint. pdf. (Accessed: 17th October 2017).

Creative & Cultural Skills.(2012).*Mapping Heritage Craft. http://blueprintfiles.* s3.amazonaws.com/1368626588-

CCS_HERITAGECRAFTMAP_FINAL_TEXT_ PRINTAW_AW6.pdf. . (Accessed: 17th October 2017).

Wailes, B. (1996). *Craft specialization and social evolution: in memory of V. Gordon Childe*. Philadelphia, University Museum of Archaeology and Anthropology, University of Pennsylvania.

Stickdorn, M. and Schneider, J. (2014) This is Service Design Thinking.: Basics - Tools - Cases. 01 edition. Amsterdam: Bis Publishers.

Newbery P., & Farham, K. (2013). *Experience design: a framework for integrating brand, experience, and value. Hoboken,* New Jersey, John Wiley & Sons, Inc.

Greenless, R.(2016). The UK craft sector isn't a 'hipster' economy. It's sparking innovation.. https://www.theguardian.com/commentisfree/2016/nov/18/uk-craft-sector-isnt-hipster-economy-manufacturing. (Accessed: 23 th October 2017)

Clay College Stroke.(2016). *Adopt a Potter* http://www.adoptapotter.org.uk/our-aims. htm.(Accessed: 6 th May 2017).

Arts Foundation(2014). *Sarat Babu*. https://www.youtube.com/watch?v=_d6NH9ZzkrA (Accessed: 24 th May 2017).

Dezeen.(2014). *Oluwaseyi Sosanya invents 3D-weaving machine*. https://www.dezeen.com/2014/06/23/oluwaseyi-sosanya-invents-3d-weaving-machine-show-rca-2014/. (Accessed: 24 th May 2017).

Gasby, F.(2017). *Instagram page*. https://www.instagram.com/floriangadsby/?hl=en. (Accessed: 17 th August 2017).

Cockpit arts.(2017). *Cockpits*. cockpitarts. com/. (Accessed: 17 th August 2017).

Heritage Crafts Association.(2017) The Radcliffe Red List of Endangered Crafts. Available at: http://heritagecrafts.org.uk/wp-content/uploads/2017/04/The-Radcliffe-Red-List-of-Endangered-Crafts-Research-Report-revised.pdf.(Accessed: 10th July 2017).

Emmison M & Smith P. (2012) *Researching the Visual: Introducing Qualitative Methods*. 2nd ed.London: Sage.

KMPG.(2016). Innovation Through Craft: Opportunities for Growth. http://www.craftscouncil.org.uk/content/files/KPMG_CC_innovation_report_full.pdf. (Accessed: 16th June 2017).

Moore, N. (2006). How to do Research: A Practical Guide to Designing and Managing Research Projects. 3rd rev. ed. London: Library Association.

Voros.J. (2017). https://thevoroscope.com/2017/02/24/the-futures-cone-use-and-history/.(Accessed: 10 th June 2017).

Ideo(2016). *Design Kit*.http://www.designkit.org/.(Accessed: 3 rd June 2017).

Kelley, T. (2016). The Art Of Innovation Lessons in Creativity from IDEO, America's Leading Design Firm. London, Profile Books.

Osterwalder, A., Pigneur, Y., Bernarda, G., Smith, A., & Papadakos, T. (2015). *Value Proposition Design: How to Create Products and Services Customers Want*. Somerset, Wiley.

Wagner, T., & Compton, R. A. (2015). *Creating innovators: the making of young people who will change the world.* New york:Scribner.

Department for Culture, Media & Sport. (2016).

Official Statistics Key Findings. https://www.gov.uk/government/publications/creative-industries-2016-focus-on/key-findings. (Accessed: 10 th June 2017).

Crafts Council.(2016). The future of craft education is at risk. http://www.craftscouncil.org.uk/content/files/Studying_Craft_16.pdf (Accessed: 10 th June 2017).

Creative & Cultural Skills (2012). Mapping heritage craft: the economic contribution of the heritage craft sector in England. London, Creative & Cultural Skills. http://creative-blueprint.co.uk/library/item/451. (Accessed: 8 th May 2017).

Rodgers, P. A., & Yee, J. (2015). *The Routledge companion to design research*. Routledge

Crafts Council. (2014). *Our future is in the Making*. http://www.craftscouncil. org.uk/content/files/7822_Education_manifesto%4014FINAL.PDF. (Accessed: 12 th June 2017).

Pye, D. (1978) The Nature and Art of Workmanship. Cambridge: Cambridge University Press.

Manzini, E. (2015). *Design, when everybody designs: an introduction to design for social innovation*. Massachusetts. Massachusetts Institute of Technology Press.

Laurel, B. (2003). *Design research: methods and perspectives*. Cambridge: Mass, MIT Press.

Snyder, C. (2011). Paper prototyping: the fast and easy way to design and refine user interfaces. Amsterdam [u.a.],:Morgan Kaufmann.

Czarniawska-Joerges, B. (2013). *Shadowing* and other techniques for doing fieldwork in modern societies. Malmö, Liber [etc.].

Britz, G. C.et all (2010). *Improving* performance through statistical thinking. Milwaukee, WI, ASQ Quality.

Sangiorgi, D., & Prendiville, A. (2017). *Designing for service: key issues and new directions*. London: Bloomsbury.

Pahl, N., & Richter, A. (2007). SWOT analysis: idea, methodology and a practical approach. Munchen: GRIN Verlag.

Brown, T. (2009). Change by design: how design thinking creates new alternatives for business and society. New York, Collins Business.

Positive News.(2015). The revival of the UK's ceramic industry. https://www.positive.news/2015/lifestyle/arts/18593/revival-uks-ceramic-industry/. (Accessed: 29 th September 2017).

Make it. World Capital of Ceramics.http://www.makeitstokestaffs.co.uk/industries/ceramics/.(Accessed: 29 th September 2017).

Partington,M. (2010). *Can British Ceramics Education Survive?* NCECA http://eprints. uwe.ac.uk/18295/3/can%20british%20 ceramics pdf. (Accessed: 23 th October 2017).

Gov.Uk.(2017). Classifying ceramics for import and export. https://www.gov.uk/guidance/classifying-ceramics. (Accessed: 23 th October 2017).

Poggenpohl, S. H., & Satō, K. (2009). *Design integrations research and collaboration*. Chicago, Intellect, the University of Chicago Press.

Halper, V., & Douglas, D. (2009). *Choosing* craft the artist's viewpoint. Chapel Hill (N.C.), University of North Carolina Press.

Sanders, E. B.-N., & Stappers, P. J. (2014). Convivial design toolbox: generative research for the front end of design. Amsterdam, BIS.

Salinas, L. (2016). *The Production of Digital Public Spaces*. Lancaster University. Unpublished doctoral thesis. pp. 60-61

Innovation Managament. (2002). Thinkpak Brainstorming Card Deck takes SCAMPER to the Next Level. http://www.innovationmanagement.se/imtool-articles/thinkpak-brainstorming-card-deck-takes-scamper-to-the-next-level/. (Accessed: 15th October 2017).

Crafts Council. (2014). *Our future is in the Making*. http://www.craftscouncil. org.uk/content/files/7822_Education_manifesto%4014FINAL.PDF. (Accessed: 12 th June 2017).

Kalbach, J. (2016). Mapping experiences: a guide to creating value through journeys, blueprints and diagrams. Canada: O'reily.

De Bono, E. (2017). *Six thinking hats*. London: Penquin

Ideo.(2009).Design Kit: *The Human-Centered Design Toolkit*. https://www.ideo.com/post/design-kit. (Accessed: 28 th October 2017).

Manschot, M and Sleeswijk, F (2011). Experience-value: a framework fordetermining values in service design approaches. (Accessed: 4 th October 2017).

Lego. The LEGO® SERIOUS PLAY: The method. https://www.lego.com/en-gb/seriousplay/the-method. (Accessed: 28 th October 2017).

Karana, E., Pedgley, O., & Rognoli, V. (2013). *Materials experience: fundamentals of materials and design*. Oxford: Butterworth-Heinemann

Crafts Council. *Crafts Council*. (2015). *http://www.craftscouncil.org.uk*. (Accessed: 5th November 2017)

Abode. (2017) https://www.adobe.com/uk/#. (Accessed: 5th November 2017).

Kraft, C. (2012). *User experience innovation: user centered design that works.* New York, Apress.

El-haik, B., & Roy, D. M. (2005). Service design for Six Sigma: a roadmap for excellence. Hoboken (N.J.), Wiley-Interscience.

Dick, B.(2002). The Snyder evaluation process. Session 11 of Areol - action research and evaluation on line. http://www.aral.com.au/areol/areol-session11.html. Accessed on 5th October 2017.

Reason, B et all (2016). Service design for business a practical guide to optimizing the customer experience. Hoboken, New Jersey, John Wiley & Sons

Foglieni, F, villarl, B., & Maffei, S. *A research framework for service evaluation*. http://www.servdes.org/wp/wp-content/uploads/2014/06/Foglieni-F-Maffei-S-Villari-B.pdf. Accessed on 5th October 2017.

ZIMMERMAN, S., & BELL, J. (2015). The sustainability mindset using the matrix map to make strategic decisions. San Francisco, California, Jossey-Bass.

HAN, Q. (2010). *Practices and principles in service design: stakeholder, knowledge* and Community of Service. Dundee, University of Dundee.

LAWSON, B. (2014). *How designers think:* the design process demystified. London, Routledge, Taylor & Francis Group.

Crafts Council.(2012). Craft in an Age of Change. http://wcc-europe.org/sites/default/files/Craft_in_an_Age_of_Change.pdf.
Accessed on 18th July 2017.

Garcia, J et all .Nesta(2016). The Geography of Creativity in the UK Creative clusters, creative people and creative networks.Accessed on 26th August 2017.

D'School. An Introduction to Design Thinking PROCESS GUIDE. https://dschoolold.stanford.edu/sandbox/groups/designresources/wiki/36873/attachments/74b3d/ModeGuideBOOTCAMP2010L.pdf. (Accessed: 2nd th April 2017).

Design Council. The Design Process: What is the Double Diamond?. https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond. (Accessed: 2nd th April 2017).

Flick (2009). Introduction to Qualitative Research. London, SAGE Publications. http://www.dphu.org/uploads/attachements/books/books_89_0.pdf. (Accessed: 1st June 2017).

Ted. Tales of creativity and play. (2008). https://www.ted.com/talks/tim_brown_on_creativity_and_play#t-266208. (Accessed: 21st November 2017).

Foglieni, F, villarl, B., & Maffei, S. (2014). Designing better services a strategic approach from design to evaluation. London:Springer

Rittel, H. W. J., & Webber, M. M. (1973). *Dilemmas in a general theory of planning*. https://www.cc.gatech.edu/fac/ellendo/rittel/rittel-dilemma.pdf (Accessed: 7 th October 2017).

Polaine, A et all (2013). Service design from insight to implementation. Brooklyn, New York, Rosenfeld Media.

Henchey, N. (1978), 'Making Sense of Futures Studies'.

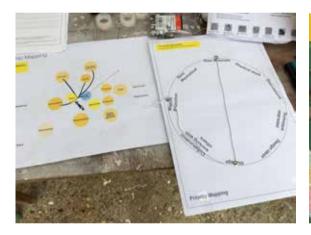
Dasgupta.A.(2017). GLOBAL DESIGN FUTURES – HANDCRAFTING FUTURES https://anupdasgupta.wordpress. com/2017/06/22/global-design-futures-handcrafting-futures/ .Accessed on 22nd November 2017.

Appendix











Clockwise: Location Mapping. Scenario context. My futures. Mapping of Identity. Redefining the stakeholders map and priority Map

