

The State of Design

Open research

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**FOR EACH
RESEARCH...**

**...YOU HAVE A
LINK,**

...AND A QR CODE!

GO ON YOUR APP STORE TO DOWNLOAD A "QR CODE READER"

DEFINE

UNIT 1



More stories of horror and hilarity from
~~freelancers~~ and industry veterans
#overpaid Hipsters!

BRYCE BLADON
let's just say Oprah wrote it.

TRANSMIT DESIGN VALUES

WHY ? AN EXPERIENCE

As a designer during my short experience as a professional I met a lot of people **who didn't know anything about design.**

I heard some sentences like "you're designer **make the magic** happens and we will see after if we want to change something."

The problem for me, more than just the bad consideration of designers, is that I think our **values** are really important for the world we are living in and companies should totally use them as a factor of improvement in our society.

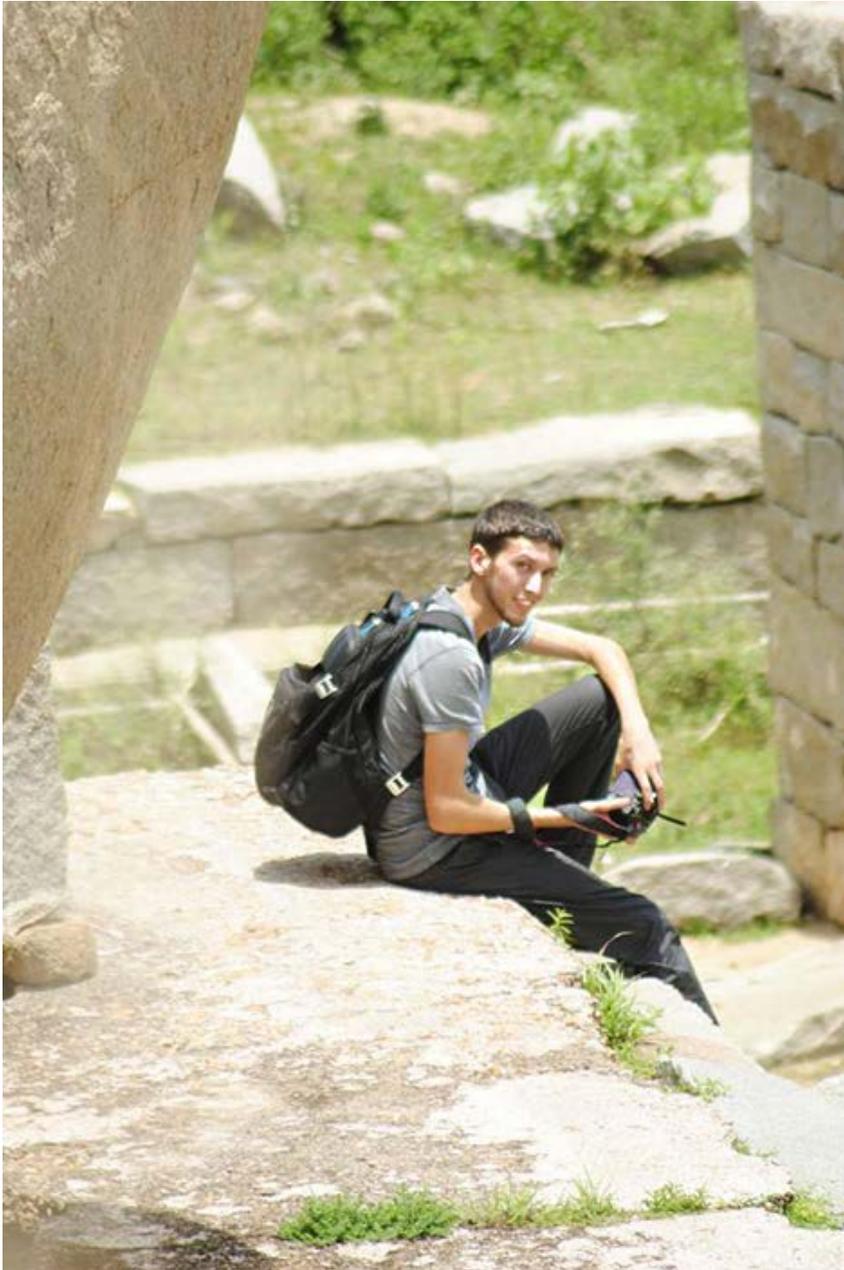
Furthermore I realized this problem exist since always and if we consider that Designer is a **new profession** (around 160years) I think there are still **a lot of things to improve.**



*"Back in 2013, the **Design Council** worked with the Arts & Humanities Research Council to measure the value that design brings to small businesses.*

*The Design Council's research shows that **every £1 spent on design can produce over £20 in increased revenue and £4 in increased profit.** "*





WHY ?

My experience inside a company is short but what I learnt during that time is that **we easily fall in a daily routine** without really understanding how or why.

For this project, I am interested in **how things are happening, how innovation and creativity are happening, how design is working and how it could be better....** I thought that the fact to don't have that long experience would be a disadvantage but it could actually be more useful and permits me to be more critical or at least more objective about actual trends.

*"The peculiarity of the design is that **there is no single, definitive definition as it reinvents itself each time following the developments, cultures and contributions of designers worldwide.**" French Alliance of Design*

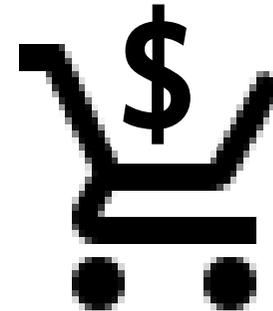


**VALUE
FROM A DESIGN
POINT OF VIEW**



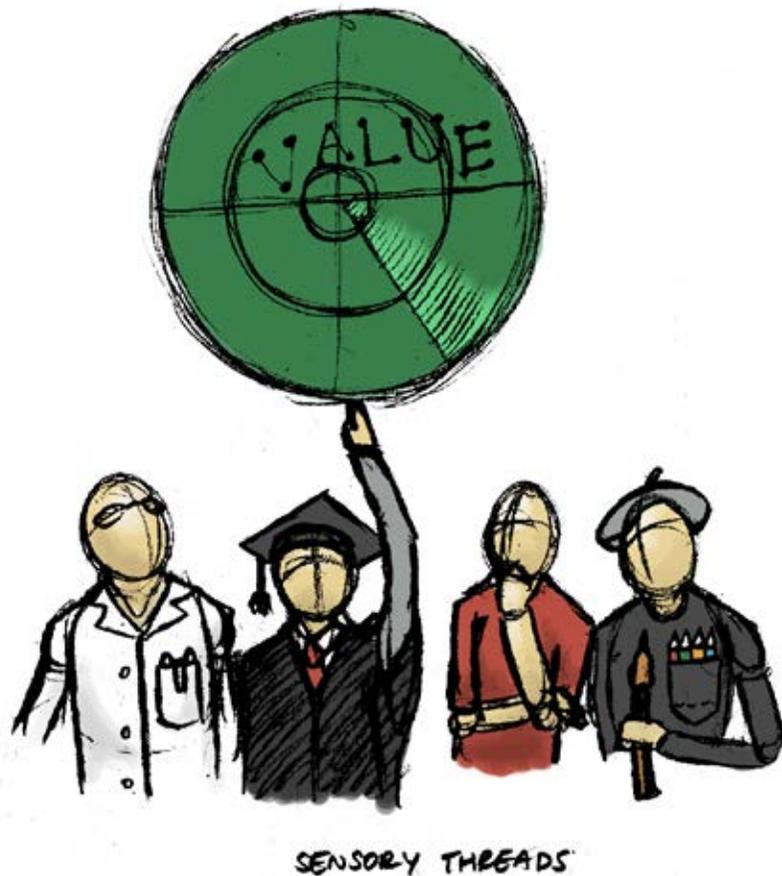
Human driven
User

**VALUE
FROM A BUSINESS
POINT OF VIEW**



Money driven
Consumer

"Design is not added value, design is value" Gui Bonsiepe



HOW ? _____

The vision of this project is a long walk through the "**State of Design**" from past to future and this should arrive to a conclusion and a problematic which will help me to create a solution.

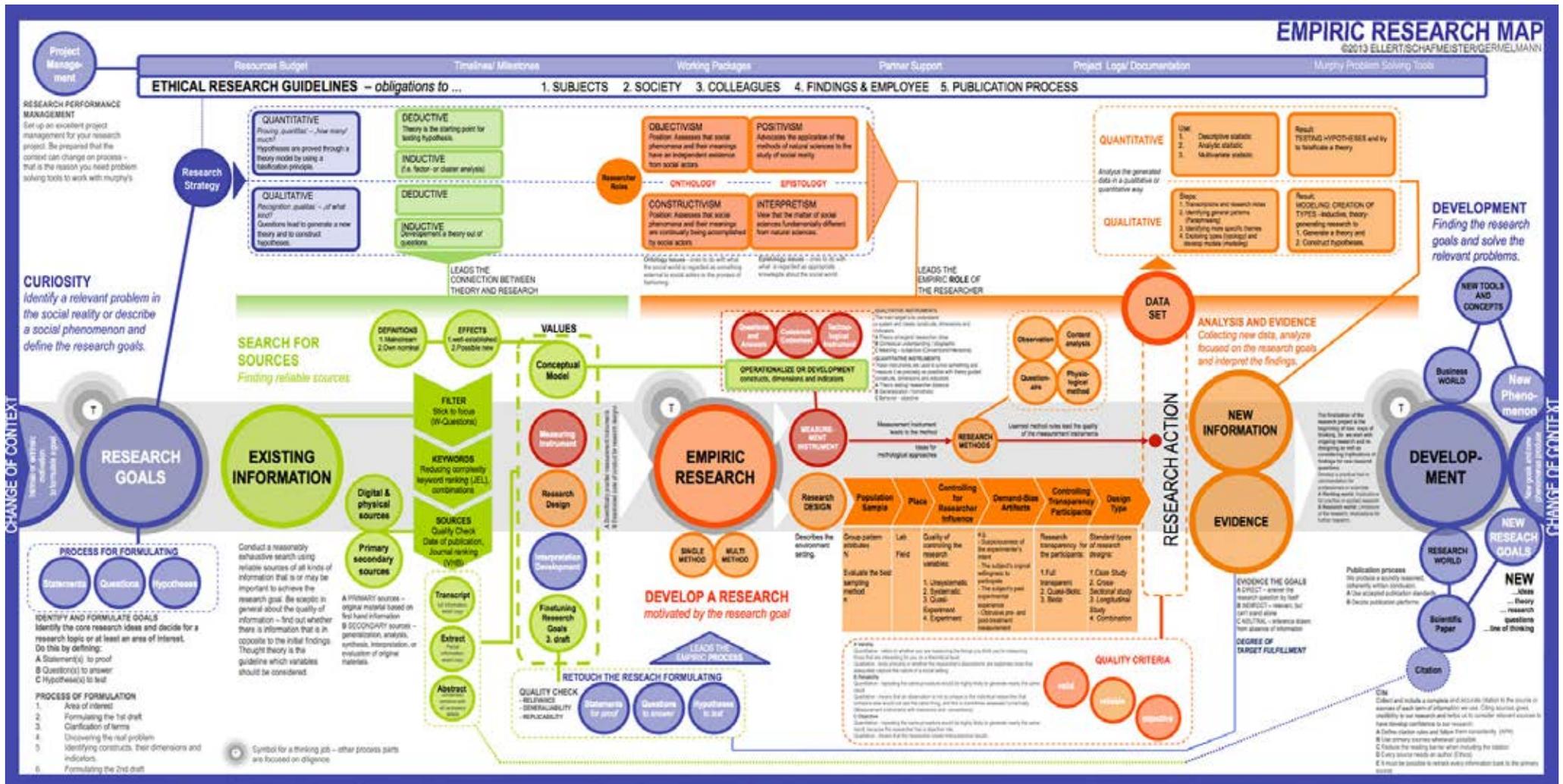
As a first sight my problematic would be "**Teaching design values using a process.**"

Ethics/Aesthetics
Creativity/Process
Simplicity/Complexity
Image/Identity

As a first glance I tried to find existing projects using different mediums on how to teach Design to people.



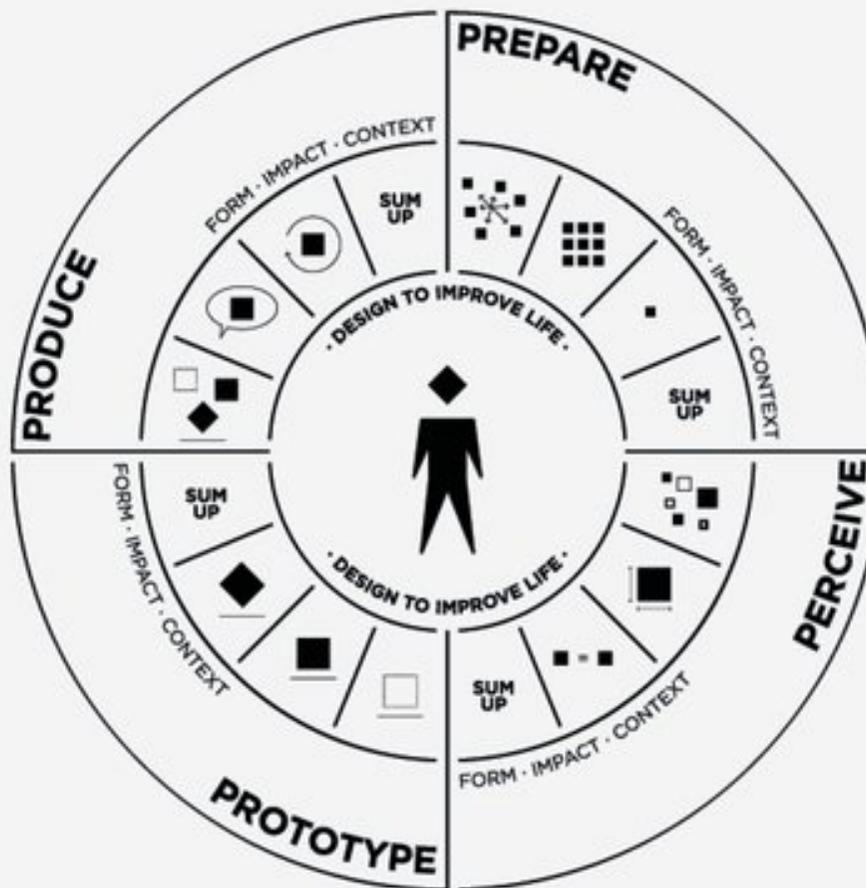
MEDIUM AN INFOGRAPHICS



The Empiric Research Map from Ellert, Guido, & Schafmeister, Guido & Germelmann, Claas Christian (2013) Looks like a complete process, full of tools and methodologies but impossible to use, teach or understand easily.



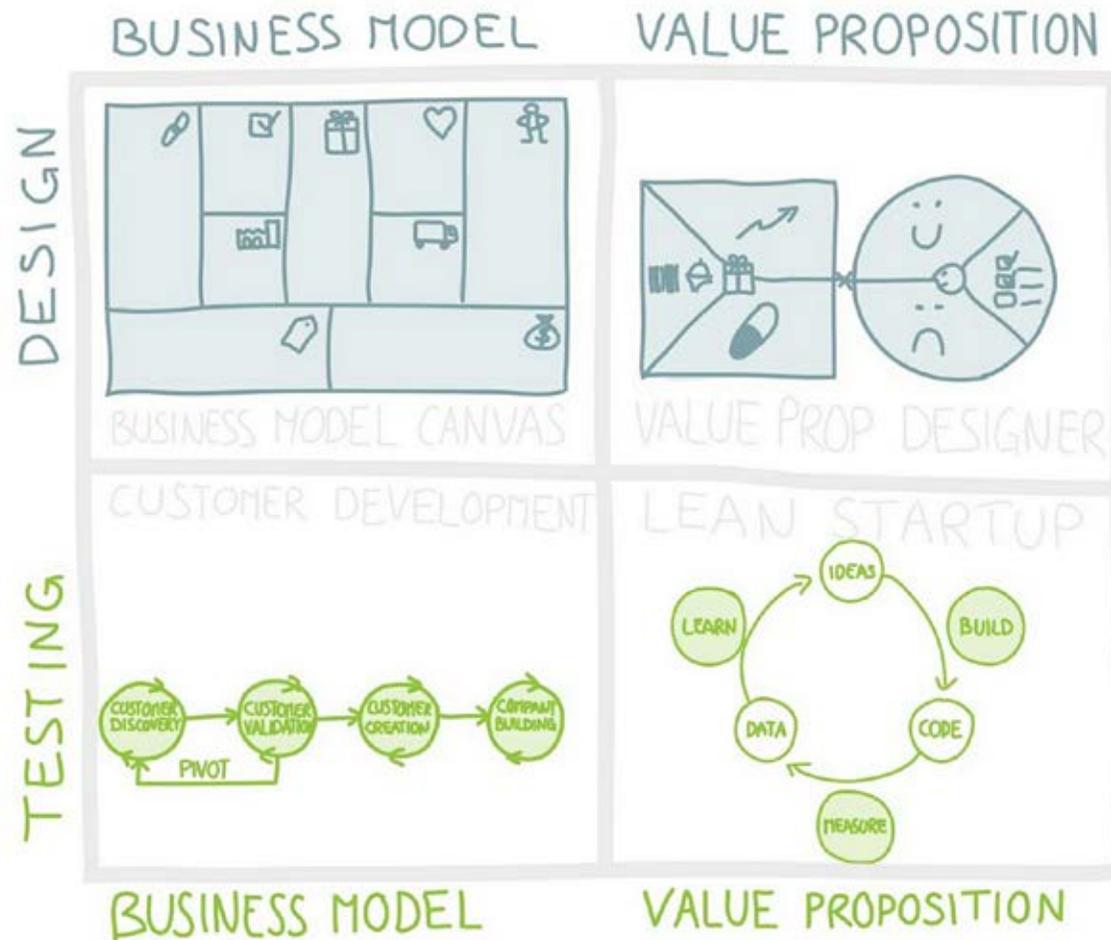
MEDIUM AN INTERACTIVE TOOL



The **Design to Improve Life Compass** is an easy-to-access process including **didactics and methodologies**. More as a helping tool for Design coach, It helps both students and teachers to keep focus in creative processes.



MEDIUM A CANVAS



These **canvas** are interesting to progress in group on a single direction and have a better picture of a project. They are generally **printed** on large sizes sheets so people can use **post it** which make it more flexible.

MEDIUM A CARD'S DECK

MÉTHODE
PROTOTYPER POUR GAGNER EN EMPATHIE



POURQUOI prototyper pour gagner en empathie

Il est de pratique courante de tester et prototyper avec les utilisateurs pour évaluer les solutions, mais vous pouvez aussi gagner en empathie en prototypant avec les utilisateurs. Voici en quoi consiste ce type de ateliers et des points d'observation. Bien sûr, chaque fois que vous travaillez un prototype avec un utilisateur, vous devez vous appuyer sur des données et des faits, mais ce n'est pas le seul moyen de gagner en empathie, vous pouvez aussi apprendre davantage sur le personnage grâce à une approche empathique.

Mais vous pouvez aussi apprendre pour des prototypes en utilisant des scénarios spirituellement conçus pour gagner l'empathie, sans même essayer une solution (ou même sans avoir une solution en tête). Cela est possible grâce à des ateliers de co-création ou de prototypage rapide, mais il est aussi possible de créer des scénarios de prototypage sans même avoir de prototype. Il s'agit de créer des scénarios de prototypage sans même avoir de prototype, mais il est possible de créer des scénarios de prototypage sans même avoir de prototype, mais il est possible de créer des scénarios de prototypage sans même avoir de prototype.

COMMENT prototyper pour gagner en empathie

Ces protocoles de prototypage sont conçus pour aider à gagner en empathie. Ils sont conçus pour être utilisés dans des ateliers de prototypage rapide, mais ils peuvent aussi être utilisés dans des ateliers de prototypage sans même avoir de prototype. Ils sont conçus pour être utilisés dans des ateliers de prototypage rapide, mais ils peuvent aussi être utilisés dans des ateliers de prototypage sans même avoir de prototype.

Quelques idées

- Faire un atelier de prototypage rapide avec des utilisateurs pour tester une solution.
- Créer un jeu de cartes qui oblige les utilisateurs à faire des choix liés à votre défi de conception.
- Développer un atelier de prototypage rapide pour tester une solution.

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MÉTHODE
RACONTER UNE HISTOIRE



POURQUOI raconter une histoire

Il semble que les histoires aient un impact important sur notre psyché. Depuis que le langage existe, les humains ont été fascinés par les histoires et les récits. Les histoires nous aident à comprendre le monde et à nous connecter les uns avec les autres. Elles nous aident à comprendre le monde et à nous connecter les uns avec les autres. Elles nous aident à comprendre le monde et à nous connecter les uns avec les autres.

COMMENT raconter une histoire

Pourquoi? Raconter une histoire vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Elle vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Elle vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

Soyez subtil et créatif. Les histoires sont plus puissantes quand vous y mettez un peu de vous-même. Raconter une histoire vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Elle vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Elle vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

To usés vers un personnage. Les personnages sont un excellent véhicule pour exprimer des besoins humains profonds et générer de l'empathie et de l'intérêt auprès de vos utilisateurs. Raconter une histoire vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Elle vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Elle vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

Activez le dramatique. Votre histoire doit avoir une complication, une quête, un conflit et une transformation. **Quelle** Quelle est la base de votre personnage? Quelles actions a-t-il pu accomplir? **Comment** Comment a-t-il réussi à accomplir ces actions? **Quel** Quel est le défi de votre personnage? **Comment** Comment a-t-il réussi à accomplir ces actions?

Détails. "Derrière tout comportement se cache une émotion." Quelle émotion pourriez-vous partager sur votre personnage et ses valeurs pour servir des utilisateurs?

Le processus de conception est un processus itératif. Il faut se rappeler que ce n'est pas le processus de conception qui est le plus important, mais le processus de conception qui est le plus important.

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MODE
PROTOTYPER



Prototyper

Prototyper permet à vos idées de prendre vie. Le prototype peut prendre n'importe quelle forme physique - que ce soit un maquette, un jeu de rôle, un espace, un objet, une interface, ou même un scénario. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

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Apprendre. Si vous avez des idées de produits, un prototype est un excellent moyen de les tester. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

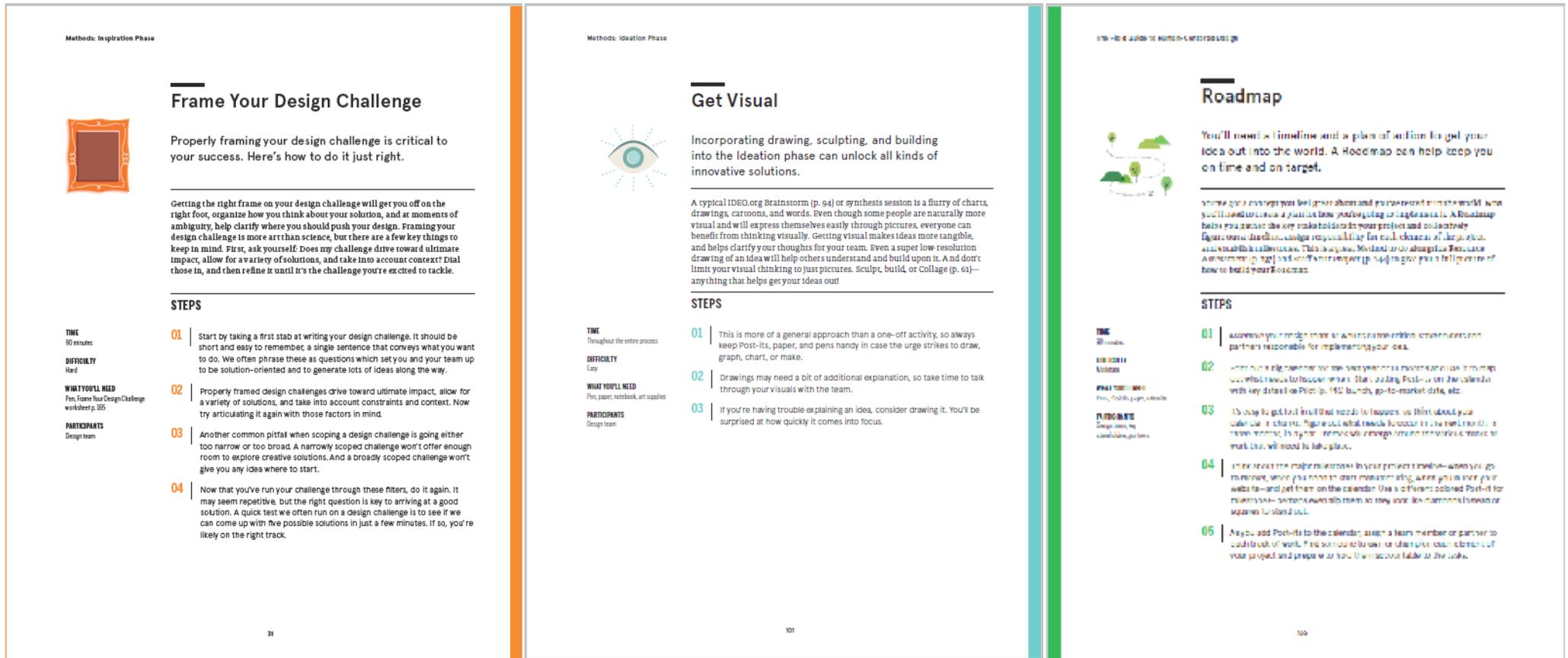
Réaliser des décisions. Le prototypage est un excellent moyen de tester vos idées de produits. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

Évaluer rapidement et à moindre coût. La création de prototypes rapides vous permet de tester un certain nombre d'idées sans avoir à investir beaucoup de temps et d'argent. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs. Il s'agit de créer un prototype qui vous aide à mieux comprendre les besoins et les émotions de vos utilisateurs.

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The Bootcamp/Bootleg permits to have a full deck of **methodologies** and to use only few of them on each different projects. The variation is great on projects and cards helps to create this feeling of game (=open mind).





The Design kit from Ideo explains everything about human centered design is well explained with some exercises and case studies. It's for interested people.

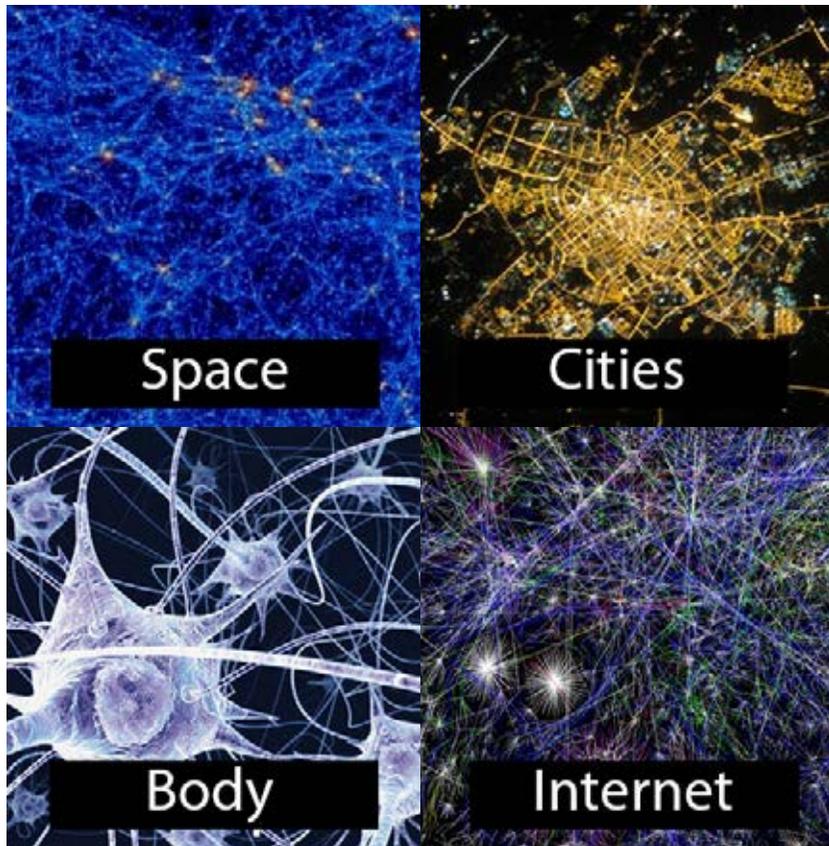


MEDIUM A GAME



Story cubes are a nice way to **enhance your creativity** by imagining totally innovative storytelling.





WHAT ? A VISION

I believe that processes are similar on our world at different level, whatever the field, the scale or the subject, if we can't understand something we should consider studying totally different topics to help us to get answers.

As the "Life's principles" diagram it would be really innovative **if we could determine some simple "rules" for Design, creativity or Innovation** which could work for every cases.

If Nature is always **evolving**, as Design, but is always following some "rules" why Design wouldn't be just the same ?

*“The major problems in this world are **the result of the difference between how nature works and the way people think.**” Gregory Bateson*

RESEARCH

INTERVIEWS



Diana Arizmendi

- Studying in IED Madrid
- Past working experiences
- UX/UI Designer
- From Mexico

She worked in 2 companies:

One small:

- Messy, no structure or methodology
- She learnt by herself: blog, books (“**37 signals**”)

Big company (accenture):

- Lot of resources for a best practice: **workshop, courses**
- Uses a methodology: “**Agile**”+Accenture methodology and **she had to be certified to use this process**
- She could have personal “initiative” but all ideas has to go through the marketing field

Her values would be “sharing, open, simplicity, aesthetics, “big picture”, easy to understand, **cross communication**”.

She chose to work in a big company to get experience.

She doesn't believe in a unique process, it should merge and so **be different for every company**.

INTERVIEWS



Andres Sucre

- Studying in IED MADrid
- Past working experiences
- Brand manager
- From Venezuela

he worked in 2 companies:

One small: 100ppl (Consultant for 2years)

- **Difference between communication and reality:**
Not design oriented: lazy, try to sell it, lost during process?
- The **workspace** is important= proximity with workers
- He never saw his CEO

Big company (1 year at P&G):

- Lot of resources for a best practice: workshop, courses
- Maybe too structured
- No creative issue; **they contacts add agencies to be creative**
- Every month a global meeting to share feedbacks

His values would be “relevant to the user and not only money driven” and with a CEO that inspire and keep in touch with his workers, his teammates.

He also worked as freelancer, used Design Thinking process.

He thinks **the best come out of the tools.**

INTERVIEWS



Carolina Menezes

- Studying in IED Madrid
- Past working experiences
- Business/Marketing
- From Brazil

She grown in Coca Cola company:

Intern>trainee program>Brand management

- **Trainee program** = company invest for 1 year to teach her different professions and have a global view of fields.
- **You (can) move a lot inside the company, it's good.**
- Lot of resources for a best practice: workshop, courses
- Methodology called **CIF (common Innovation Framework)**: Ideas scope/preliminary business case scenario/Full development/ prototype/lounge preparation/launch
- **At the beginning of CIF you create multidisciplinary teams ++**
- A project is for 1 year because **it's difficult to plan=delayed**
- Methodology is too structured and should evolve (client?)
- They are **open to change but hard with hierarchy**, need to find **good people, good timing, show that it's working...**
- Ecology ? It's possible, depends of the person more than the company: project "Ovalie reserve"
- Values would be: "Sustainability, empathy, purpose"
- How to implement:
Need to find someone interested, with needs, as a test drive to collaborate with (partner) and then show the result as a proof to improve the implementation.
- Also worked in an agency: **no learning**, not good maybe because of the high expectations.

INTERVIEWS



Ivan Bonin

- Working in RE'FLEKT GmbH
- Past working experiences
- UI/UX Designer
- From France
- Working in Germany

- He is in a creative agency:
He is free, he follows his steps learnt at school and from experience.
- He noticed **differences between countries**: Canada, Germany
Germany, actual job, is more pragmatic, waiting for results
- And also **differences between fields**: engineer= has to work, Marketing=Has to be sold,...
- Difficult to teach "Design Thinking" to clients
- Values of Design: Empathy
- Values in the company: depends more on people or real leitmotiv from the company.
- **Change/innovation is difficult because there are too many intermediates that you have to convince.**
- Credibility is important otherwise it's like to "set the cat among the pigeons": need practical and working examples or to get older.
- **The idea a Designer is just here to do beautiful interface is still a mindset.**
- Companies Workshops is "exchange volunteers":
in his company workers can do presentations of any topics to others workers.
- **Hierarchy thinks is too dangerous to change, to take risks.**

INTERVIEWS



- Graduated and working as Multidisciplinary Designer.
- Working in small company(<50) and **free to choose his own methodology**: Design Process.
- Values would be innovation: a cross-solution between **social - Technology - Cultural**
- Implementing changes: **difficult with old workers** (routine), and easier with new worker so better at the beginning when people get hired.
- Path of career: He prefers **to touch everything on a project** (multidisciplinary) so small companies are better. People who searched stability, routine or money would prefer big companies.

Richard Gentilella

- Working in FERNANDO POGGIO
- Past working experiences
- Global Designer
- From France
- Working in Argentina

INTERVIEWS



Andrea Acha

- Working in Opinno
- Communication

Speaking about Opinno:

- We are working on Design Thinking process but we have a lot of different tools. **These tools are used depending of the project.**
- We also have some **workshops** with external “teachers”; it’s mostly to speak about innovation. and **it’s quite effective.**
- People are free to assist to these workshops during their working time, the company trust them and think they can manage their time.
- Opinno is a new company actually growing, it has some values which are “**Proximity and happiness** for both clients and workers” and that permits to be **efficient.**
- There are no such values as ecology because it’s maybe not yet implemented, but it can be the 2nd step for the company. People care about it in their daily life (sort wastes, coming by bicycle,...)
- In the company there is Alejandro Briceno, who **coach** and **represent perfectly the values of the company**, he motivates our team and he organizes events with external people like students from IED.

INTERVIEWS



Mercè Graell

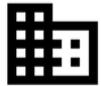
- Working in Designit Barcelona
- Strategic Design Director

- **Values ? Or Criteria, attributes, premites** (Cesar astudillo)
- **Values are not a check list there is a balance to find:**
If you want something useful probably the aesthetics will be a little less important: ... **versus** ...
- **Design thinking is easy to diverge but more difficult to converge... how to be sure to make the right decisions...**
a tool like the “life principles” can permit to have a quick overview of what we should not forget being “design driven”.
- Choices: You want to be: innovative, human centered,.... that tool will help you to make the right decision.
- Design driven pull (we provide to user), now it’s push (user ask for it) and even more it’s “technology” we have technology how to merge with companies at any price just because we can do it.
- Have a look at **Sustainable Design**: bring, care values
- **Corporate social responsibilities (CSR)**
- Have to fill the gap between design thinking and companies.
- **Companies don’t want to be educated**, never read books or are not interested by these.... they just want/need **the good information at the right moment.**

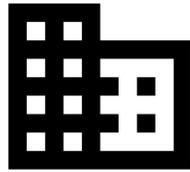


canvas or process with
on the right what you should
not forget (values).

RESUME INTERVIEWS



COMPANIES



COMPANIES

- No money=risky
- No methodologies
- Freedom
- Simpler hierarchy
- Lot of money
- Methodologies
- Flexibility
- Complex Hierarchy



“It’s easy to diverge but more difficult to converge.”

“Companies just want the good info at the right moment.”

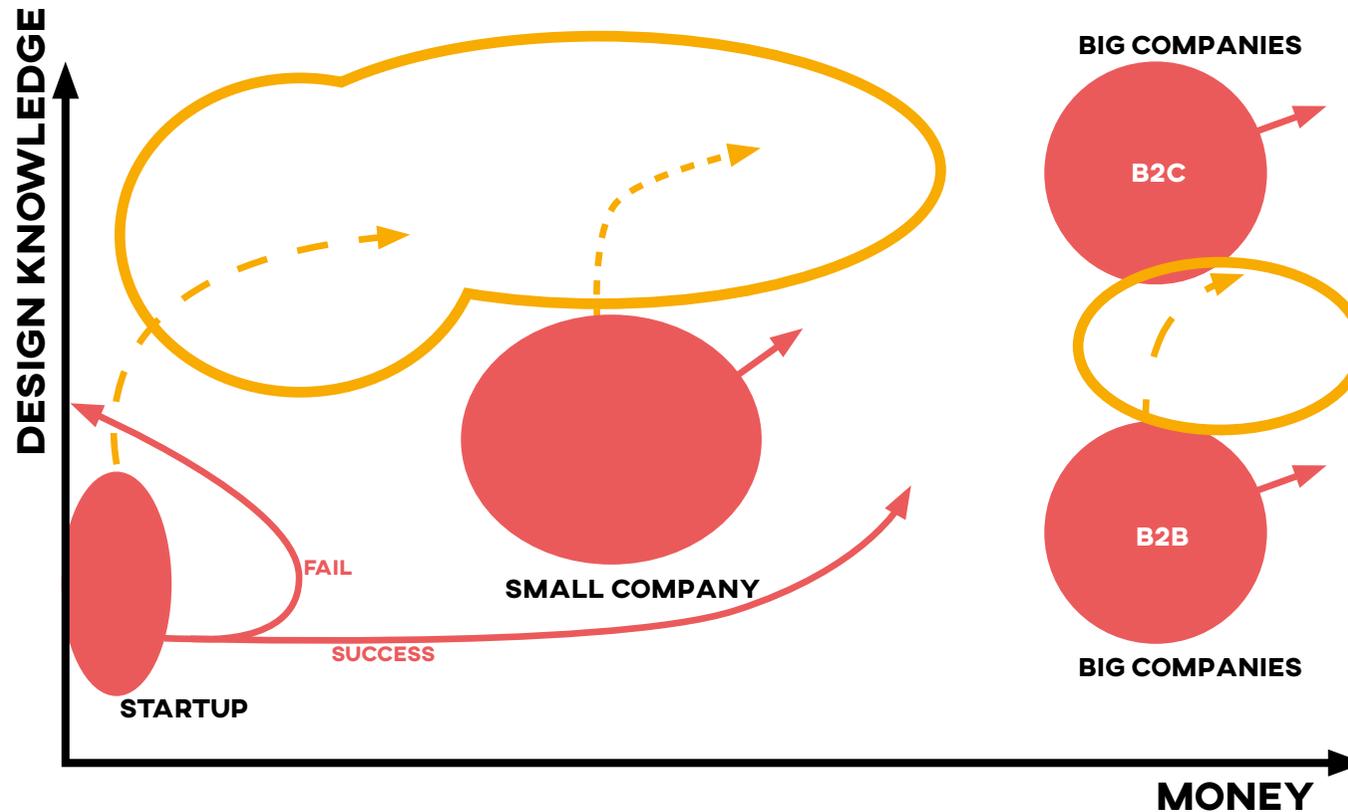
“Our values are proximity and happiness.”

“The idea a designer is just here to do beautiful interfaces is still a mindset.”

“Change/Innovation is difficult because there are too many intermediates to convince.”

“Values are not a checklist, it’s more a balance to find. depending on what you want/need.”

OPPORTUNITIES



If the project can't be global, I will have to think about opportunities:

- We can observe a real difference between B2B and B2C companies, indeed **Business to Consumer is more focus on users** which helped them to become “human centered” and to be interested faster on design. B2B start to follow more or less fast.
- Small companies and startup generally depends on the amount of designers on the company. **Small companies progress slowly** and Design could help them. **Startup are generally money driven** and is more about educating.

STATE OF DESIGN

HISTORY



DISCIPLINE



PRINCIPLE



METHODOLOGY



TOOL



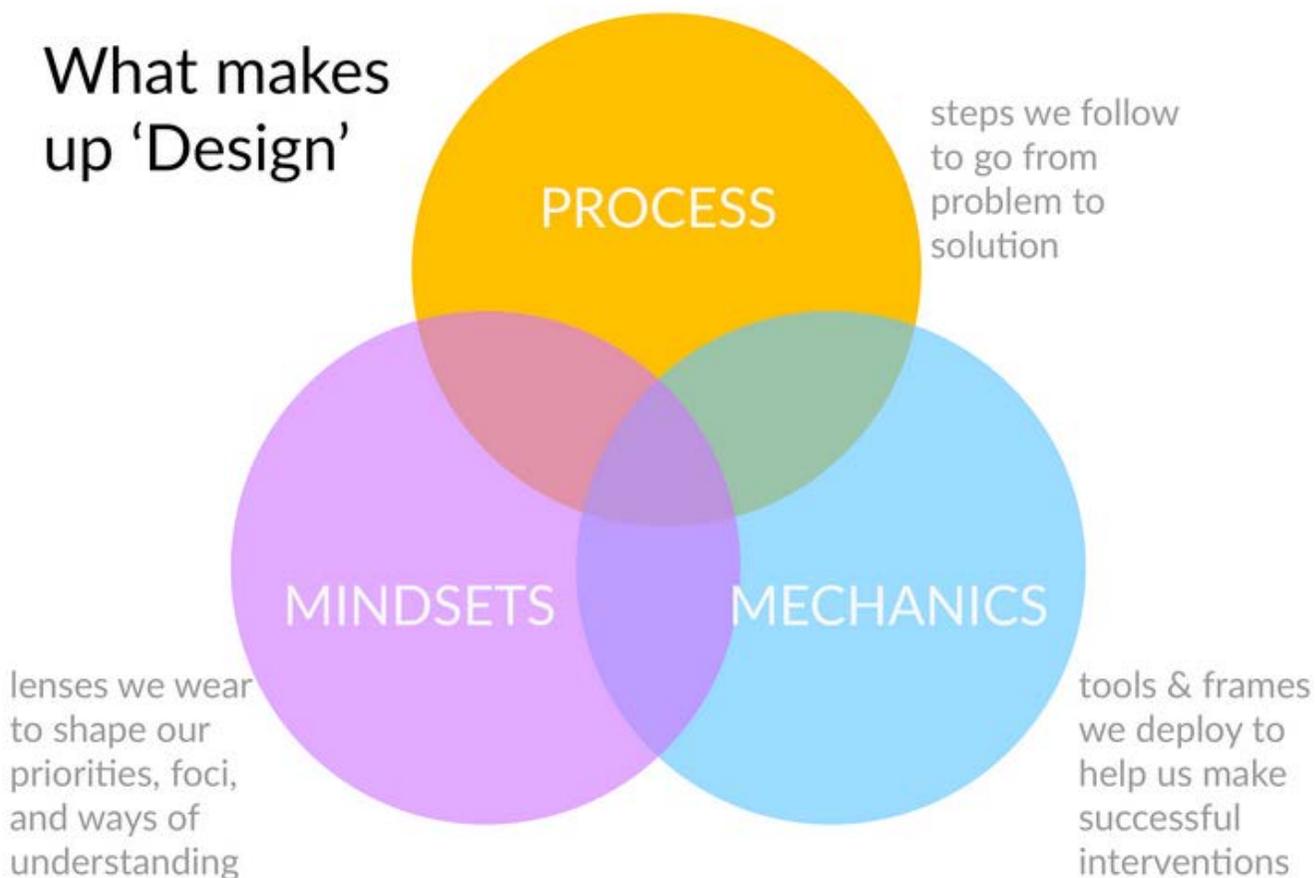
CASE STUDY





VENN OF DESIGN

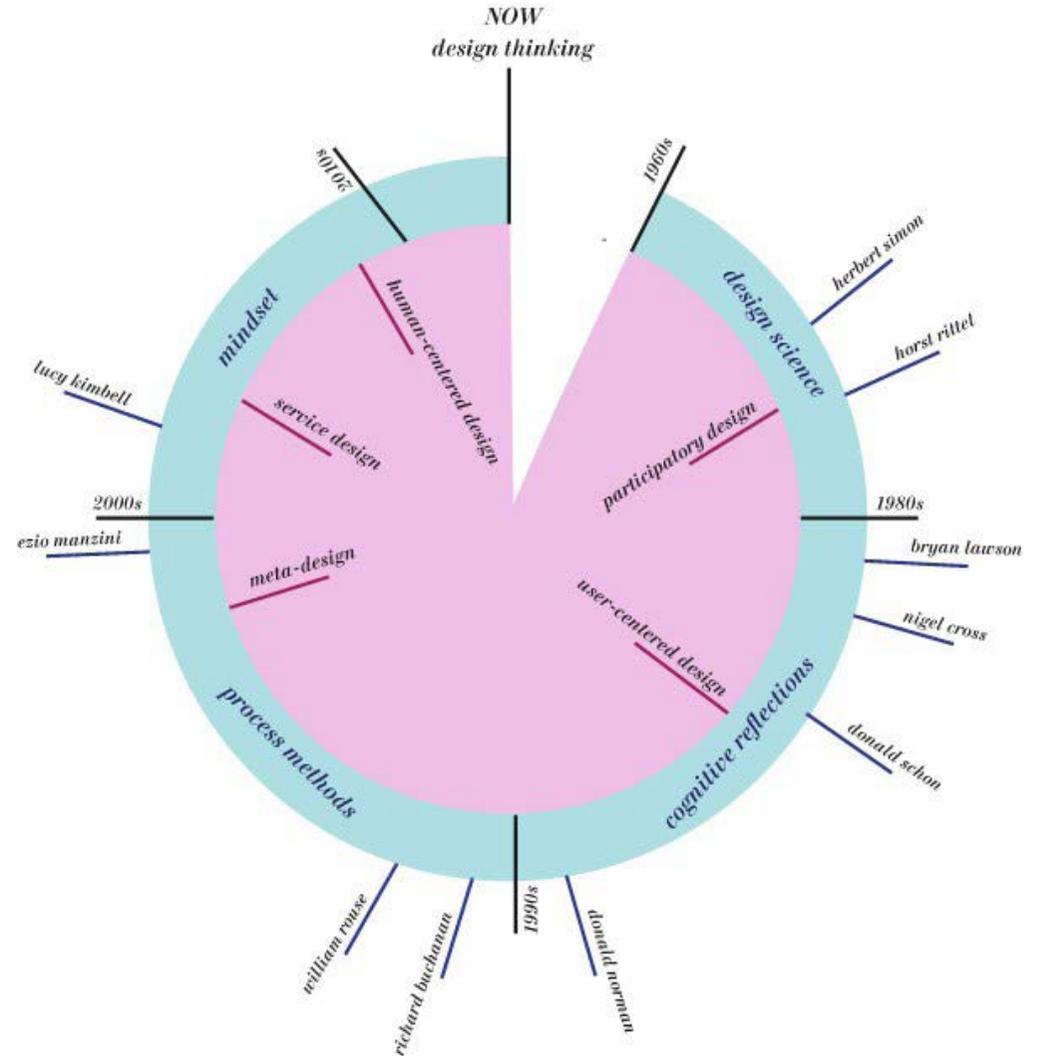
As a Designer I was trying to simplify the idea of Design into a Venn diagram and I came out with these three words: **methodologies, tools and values** which are resumed on this diagram found during my research into Process, mindsets and mechanics.



INTRODUCTION OF DESIGN THINKING

Design thinking isn't anything new, what we perceive as some hot new trend has been a topic of discussion for the past **50 years**. Design thinking was a realization through the evolution of different (collaborative) design process methods that were developed to improve and extend design to other areas of practice.

"We have come to realize that we do not have to turn design into an imitation of science, nor do we have to treat design as a mysterious, ineffable art. We recognize that **design has its own distinct intellectual culture; its own designerly 'things to know, ways of knowing them, and ways of finding out about them.'**" (Nigel Cross 1999)



Outer circle (blue) signifies the shifts in design theory along the timeline. The inner circle (pink) signifies the methodological shifts in design practice over time

PARTICIPATORY DESIGN	VS.	USER-CENTERED DESIGN	VS.	SERVICE DESIGN
user testing		user experience		user journey
efficiency	★	needs	★	value
end-user development		user at center of development		stakeholder culture



THE DESIGN FIELD DIAGRAM



- 1 DISCIPLINES
- 2 SCHOOL OF THOUGHT
- 3 PROCESSUS

PRODUCT

Product D.
Textile D.
Object D.
Author D.
Industrial D.
Fashion D.
Cooking D.
Automotive D.

Dieter Rams
10 Good Design principles

Prodesign

Domovision's books

...

Co-Design
Service D.
Ecodesign
Sustainable D.
Regenerative D.
Strategic D.
Global D.
Signage D.
Packaging D.
Parametric D.
Generative D.
Management D.

- Data Designer
- Augmented Designer
- Craft Designer
- Health D.
- Democracy D.
- Wise D.

MULTIDISCIPLINARY

Design for Experiences,
Innovation, transformation
Cradle to Cradle
Blue Economy
Circular Economy
Biomimicry
Triple Bottom Line
Emotional Design
Functionalism
Behavioral D.
Positive Design
Metadesign

Agile
Scrum
Double Diamond
Lean Startup
Six Sigma

CIF
Devops
Design Thinking
Human centered D.
...

SPACE

Interior D.
Scenographic D.
Landscape D.
Light D.
Scenic D.

SKG Principles
- Comfort
- Aesthetics
- Flow
- Blending
- Equity
- Affordance
- Repurposing

...

Design

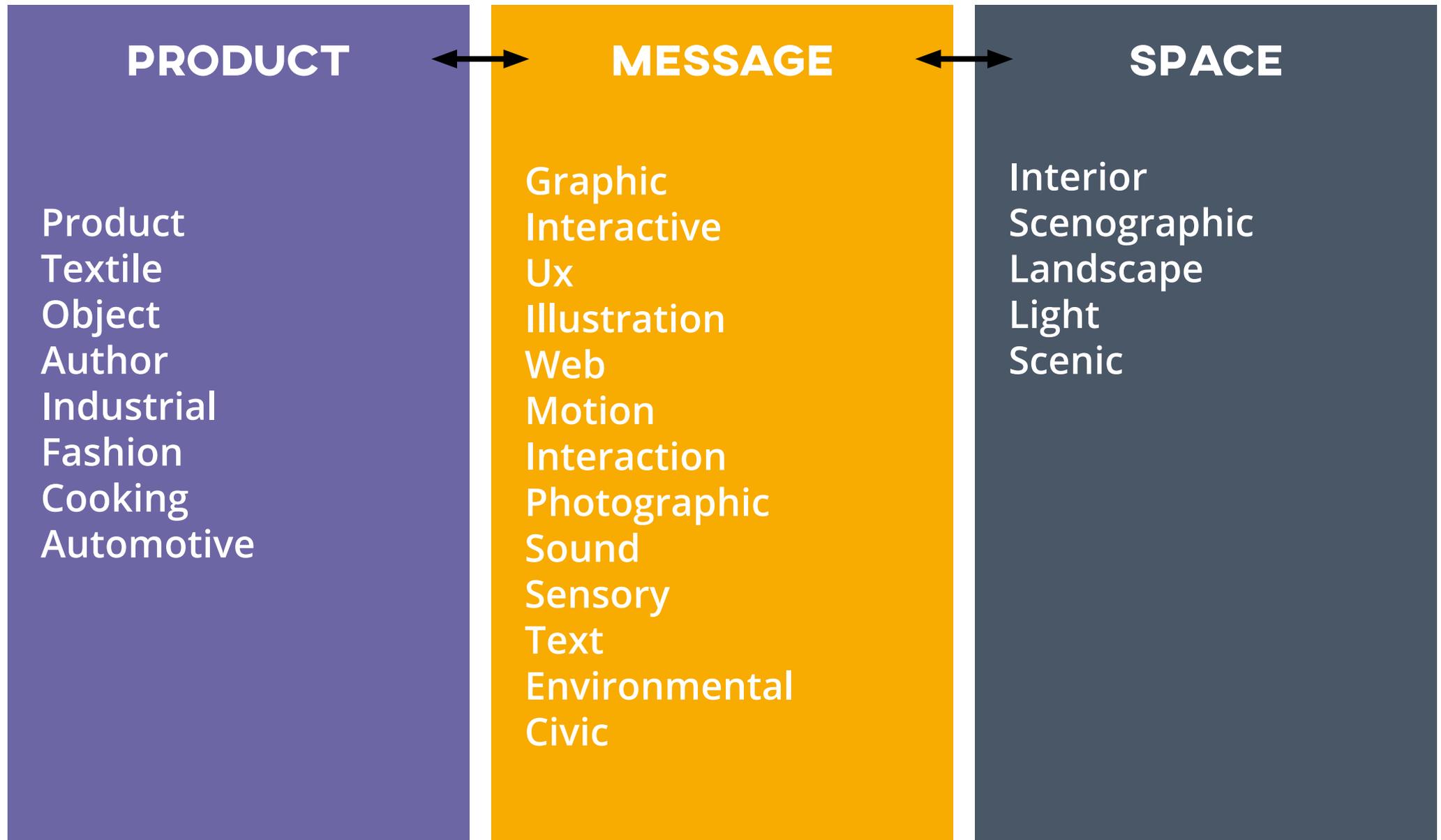
Graphic D.
Interactive D.
Ux D.
Illustration D.
Web D.
Motion D.
Interaction D.
Photographic D.
Sound D.
Sensory D.
Text D.
Environmental Graphic D.
Civic D.

MESSAGE

Privacy by Design
Sandy Wassner - Inclusive Web Design
Tim Berners Lee- Design Principles
Google - Material Design
Massimo Vignelli - The Vignelli Canion
...



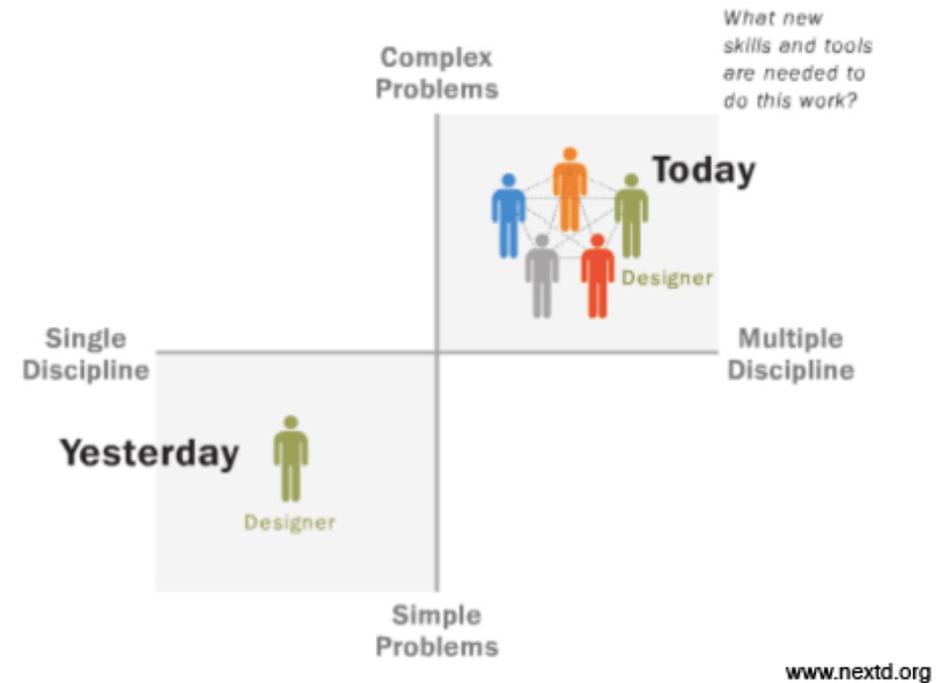
DISCIPLINES OF DESIGN



DISCIPLINES OF DESIGN

MULTIDISCIPLINARY

Co-Design
Service
Ecodesign
Sustainable
Regenerative
Strategic
Global
Signage
Packaging
Parametric
Generative
Management



“Design is becoming more complex, based on multidisciplinary knowledge and co-working team.”



FUTURE OF DESIGN DISCIPLINES

If we observe the short, middle and long term trends we can see some **clear orientations** and some **weak signals** that we can try to interpret to imagine what could be the **future of Design**. As example we can think about augmented reality, health improvement, Big data, Democratic solutions.

AUGMENTED DESIGNER

We all see coming the Augmented reality and the Virtual reality which are propelled by some of the biggest companies. Even if we can't be sure about the success we can be sure that some Designers will be more able to create in that particular 3d space than others and so a new discipline will be created.

CRAFT DESIGNER

We all see the generalization of Fab Lab and these machines: 3d printing, laser cutting, arduino,... The new artisans might emerge from there, more diversified, more connected with people, able to create connected machines by merging old and new technologies/materials.

WISE DESIGNER

" The best minds of my generation are thinking about how to make people click ads"
Jeffrey Hammerbacher

And what if people realize this missing potential and start to come back to better and strong values ?

HEALTH DESIGNER

"Design is not a science" but what if Designers could work with scientists to improve medical solutions ?
Creativity can also be helpful in these fields: nanotechnology,...

DEMOCRATIC DESIGNER

A lot of people are speaking about a shift that will come one day in many fields and politics in one of them. Civil already try to hack the actual democracy using intelligent tools and methods to bring more equality. Some designers could help and become a new discipline mixing politic, social, culture and civic design.



PRINCIPLES - PRODUCT DESIGN FIELD

PRODUCT

Product
Textile
Object
Author
Industrial
Fashion
Cooking
Automotive

Good Design - Dieter Rams - 1970

1. Good design is innovative.
2. Good design makes a product useful.
3. Good design is aesthetic.
4. Good design makes a product understandable.
5. Good design is unobtrusive.
6. Good design is honest.
7. Good design is long-lasting.
8. Good design is thorough down to the last detail.
9. Good design is environmentally-friendly.
10. Good design is as little design as possible.

Still considered as one of the most powerful **principles list Dieter Rams** (born in 1932), who created it by answering to the question "**Is my design good design?**" is well know on the Design community. He stayed for a long period as Chief Design Officer at Braun. In a recent interview he said " if I had something to do in this world again, I would not want to be a designer. Because I **believe, in the future, it will be less important to have many things and more important to exercise care about where and how we live**".



PRINCIPLES - PRODUCT DESIGN FIELD

PRODUCT

Product
Textile
Object
Author
Industrial
Fashion
Cooking
Automotive

ProDesign, éloge du Design utile - Jacques Bosser - 2007

1. Prodesign is useful.
2. Prodesign is aesthetics.
3. Prodesign is simple.
4. Prodesign is ergonomics.
5. Prodesign is rightly cost.
6. Prodesign is ecological.
7. Prodesign is durable.
8. Prodesign is rightly cost.
9. Prodesign is innovative.

On his book **Jacques Bosser** tries to explain the **state of Design in our culture**. He explains the wrong association between the design as **process of creation, as a profession** and the design **used as an adjective to describe aesthetical objects**. He proposes to create a new word for the design as a process: **Prodesign**. And to accomplish that idea he created a list of principles based on the Good Design principles.



PRINCIPLES - PRODUCT DESIGN FIELD

PRODUCT

Product
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Object
Author
Industrial
Fashion
Cooking
Automotive

DOMOVISION, Important transversal principles for future which will make a difference whatever the trends, style,...

- | | | |
|--------------------|---|--------------------|
| 1. Comfort | | 1. Earth |
| 2. Asymmetry | | 2. Ethics |
| 3. Modularity | + | 3. Ages |
| 4. Personalization | | 4. Social networks |
| 5. Eco conception | | 5. Time |

The **Domovision collection** constitutes a **prospective research tool** for accompanying marketing, tailored for people working in all areas touching the layout and fit-out of **living space**, whether they be makers, distributors, designers, producers or practices. The aim of DOMOVISION is to provide **content and methodology** that will enable professionals to anticipate market trends, assist them in adapting existing products, and enable them to create **pertinent new products to improve the comfort and well-being of one and all.**



PRINCIPLES - MESSAGE DESIGN FIELD

MESSAGE

Graphic
Interactive
Ux
Illustration
Web
Motion
Interaction
Photographic
Sound
Sensory
Text
Environmental
Civic

The Vignelli Canon, Massimo Vignelli 2009

Part One: The Intangibles

- Semantics
- Syntactics
- Pragmatics
- Discipline
- Appropriateness
- Ambiguity
- Design is One
- Visual Power
- Intellectual Elegance
- Timelessness
- Responsibility
- Equity

Part Two: The Tangibles

- Paper Sizes
- Grids, Margins, Columns and Modules
- A Company Letterhead
- Grids for Books
- Typefaces, The Basic Ones
- Flush left, centered, justified
- Type Size Relationships
- Rulers
- Contrasting Type Sizes
- Scale
- Texture
- Color
- Layouts
- Sequence
- Binding
- Identity and Diversity
- White Space
- A collection of experiences



PRINCIPLES - MESSAGE DESIGN FIELD

MESSAGE

Graphic
Interactive
Ux
Illustration
Web
Motion
Interaction
Photographic
Sound
Sensory
Text
Environmental
Civic

Tim Berners-Lee - Design Principles

1. Simplicity
2. Modular Design
3. Being part of a Modular Design
4. Tolerance
5. Decentralization
6. Test of Independent Invention
7. Principle of Least Power



PRINCIPLES - SPACE DESIGN FIELD

SPACE

Interior
Scenographic
Landscape
Light
Scenic

Experiences and Attributes of Biophilic Design

Direct Experience of Nature

- Light
- Air
- Water
- Plants
- Animals
- Weather
- Natural landscapes
and ecosystems
- Fire

Indirect Experience of Nature

- Images of nature
- Natural materials
- Natural colors
- Simulating natural
light and air
- Naturalistic shapes
and forms
- Evoking nature
- Information richness
- Age, change,
and the patina of time
- Natural geometries
- Biomimicry

Experience of Space and Place

- Prospect and refuge
- Organized complexity
- Integration of parts
to wholes
- Transitional spaces
- Mobility and wayfinding
- Cultural and ecological
attachment to place



PRINCIPLES - MULTIDISCIPLINARY DESIGN FIELD

MULTIDISCIPLINARY

Co-Design
Service
Ecodesign
Sustainable
Regenerative
Strategic
Global
Signage
Packaging
Parametric
Generative
Management

Privacy by Design - The 7 Foundational Principles

1. Proactive not Reactive; Preventative not Remedial
2. Privacy as the Default Setting
3. Privacy Embedded into Design
4. Full Functionality; Positive-Sum, not Zero-Sum
5. End-to-End Security; Full Lifecycle Protection
6. Visibility and Transparency; Keep it Open
7. Respect for User Privacy; Keep it User-Centric

Privacy by Design in its English way talks about **creating privacy at the conception stage** assuming that the **legal framework is not sufficient to ensure the protection of the private sphere**. **Geoffrey Dorne** (graphism.fr) tried to **translate these principles for designers** "as a way to design interfaces, programs, software, websites, services and any other form of digital experience connected to a user by **integrating upstream** the question of **respect for privacy**: -Don't use dark pattern. -Create honest interfaces. -Out interfaces that aggregate data. -Representing the protection of privacy to your users. -Do ethical Design."



PRINCIPLES - MULTIDISCIPLINARY DESIGN FIELD

MULTIDISCIPLINARY

Co-Design
Service
Ecodesign
Sustainable
Regenerative
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Global
Signage
Packaging
Parametric
Generative
Management

The Resilient Design Principles

1. Resilience transcends scales.
2. Resilient systems provide for basic human needs.
3. Diverse and redundant systems are inherently more resilient.
4. Simple, passive, and flexible systems are more resilient.
5. Durability strengthens resilience.
6. Locally available, renewable, or reclaimed resources are more resilient.
7. Resilience anticipates interruptions and a dynamic future.
8. Find and promote resilience in nature.
9. Social equity and community contribute to resilience.
10. Resilience is not absolute.



PRINCIPLES - MULTIDISCIPLINARY DESIGN FIELD

MULTIDISCIPLINARY

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Generative
Management

Metadesign, the design of design

1. Metadesign can intervene creatively at the level of languaging.
2. Metadesign can offer tools for thinking beyond the possible.
3. Metadesign is intended to deliver synergies-of-synergies.
4. Metadesign tasks are too complex for individual designers.
5. Metadesign should surpass the outcomes of individual participants.
6. Metadesign should foster, and benefit from, 'team-consciousness'.
7. Metadesign delivers complex outcomes that are inter-operable.
8. Metadesign teams deliver many-layered, integrated innovations.
9. Metadesign can offer fractal structures that unify very large systems.
10. Metadesign uncovers unexpected potential for other systems.



PRINCIPLES - MULTIDISCIPLINARY DESIGN FIELD

MULTIDISCIPLINARY

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Service
Ecodesign
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Regenerative
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Parametric
Generative
Management

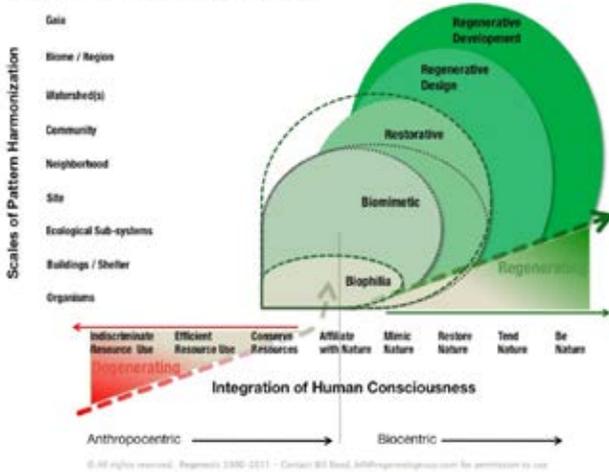
Design For All

1. Equitable use
2. Flexibility in use
3. Simple and intuitive
4. Perceptible information
5. Tolerance for error
6. Low physical effort
7. Size and space for approach and use

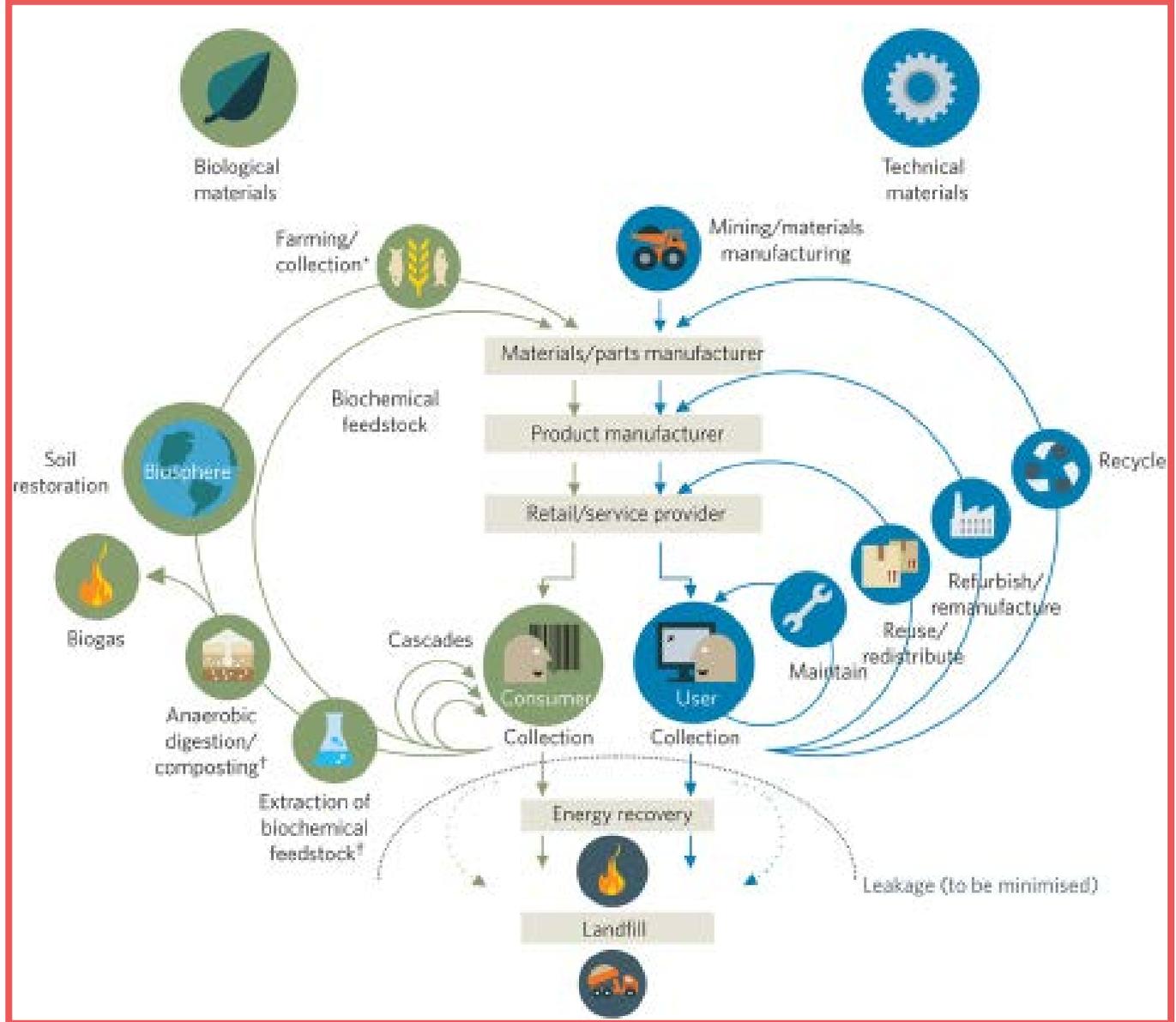


1 - Regenerative Design diagram
2 - Live's principle diagram

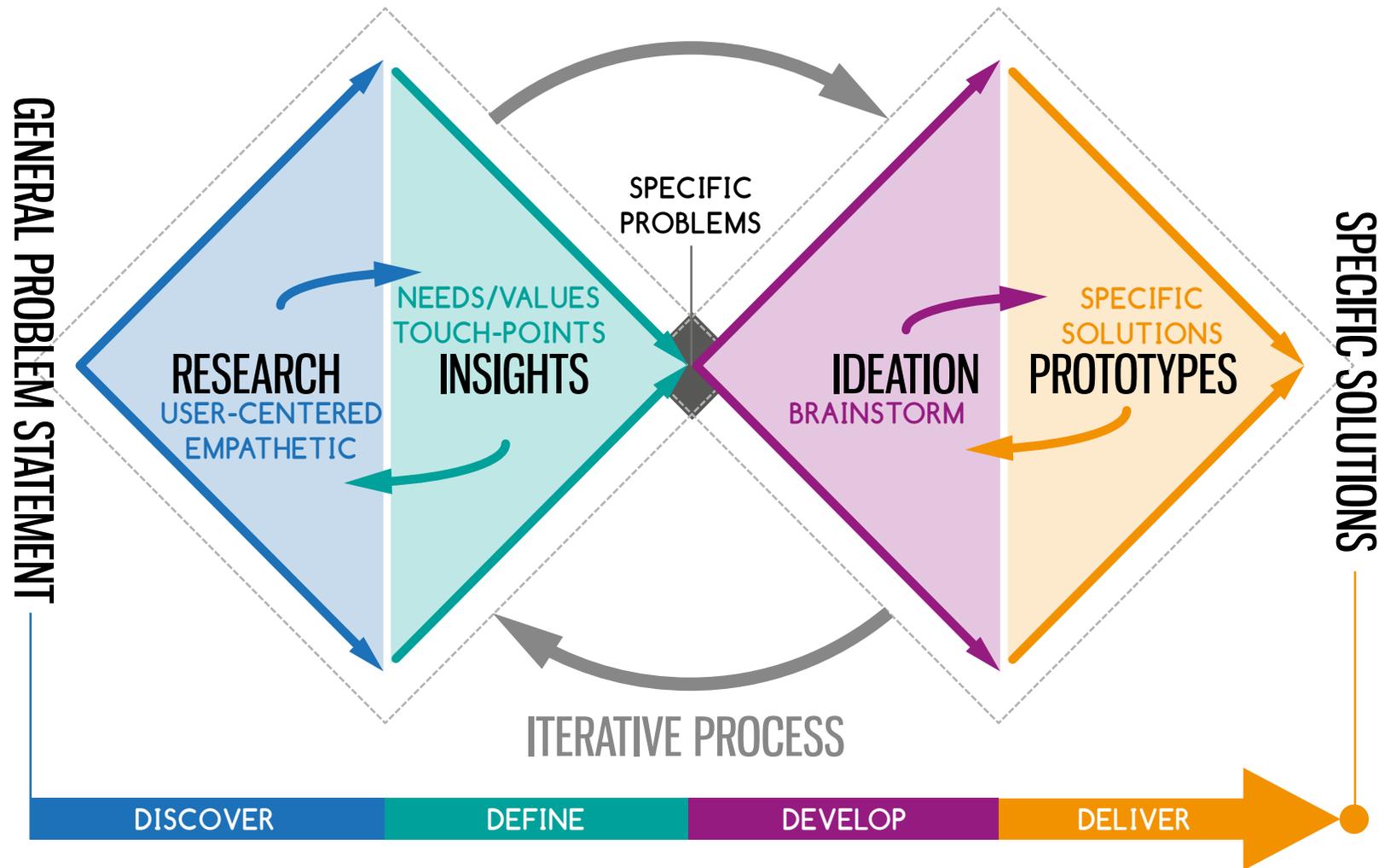
Figure 2 Levels of Ecological Strategies for Sustainability



Circular economy process



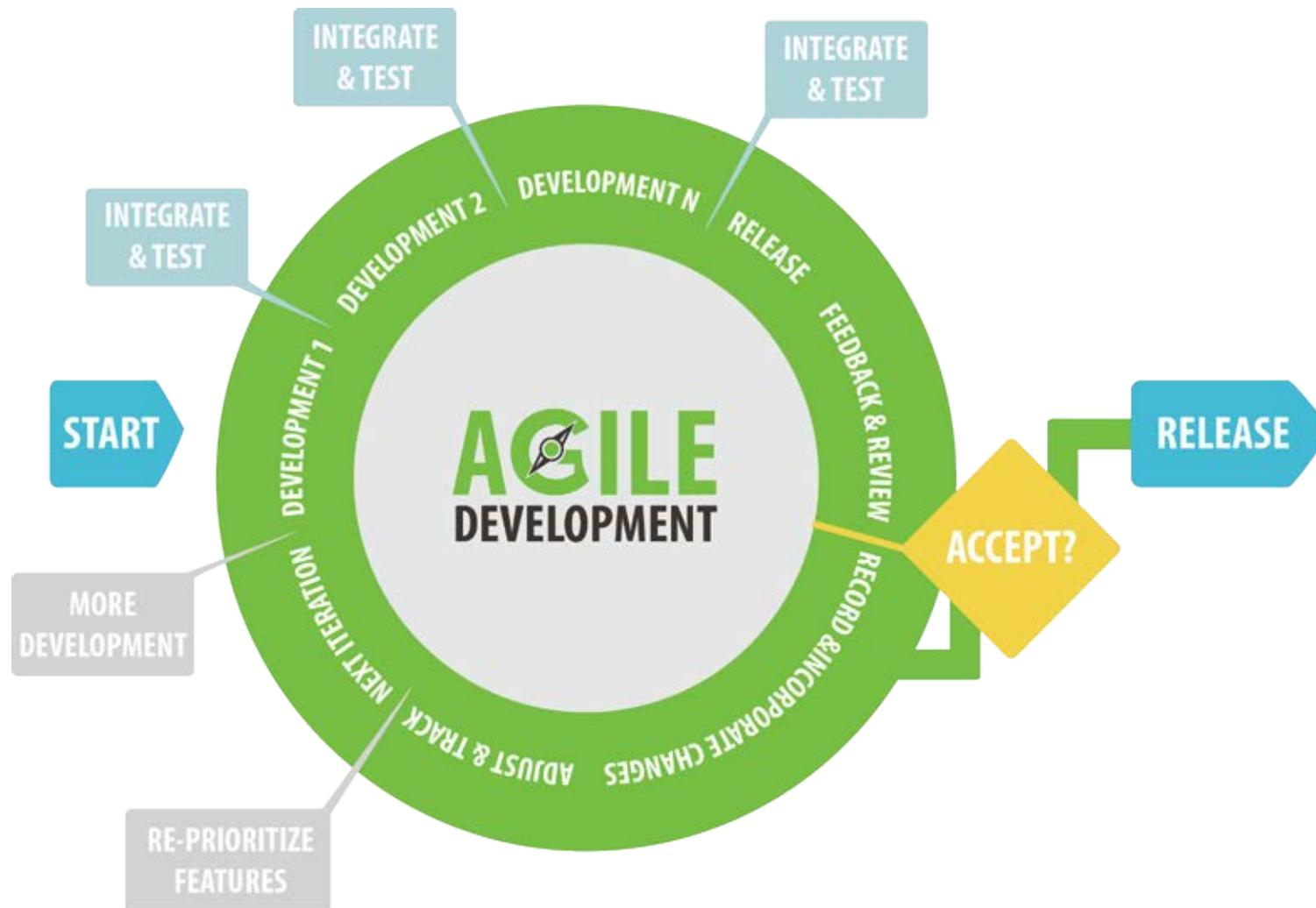
METHODOLOGY - DOUBLE DIAMOND



The **design council's 'Double diamond' design process model** was the result of a study of design processes used by 11 companies in 2009. The result is found on this model with four steps every time **diverging** or **converging**. **Discovering** permits to gather informations, **define** to reframe and find our specific problems, **develop** permits to diverge by being creative and **delivering** permits to prototype solutions and choose the good one.



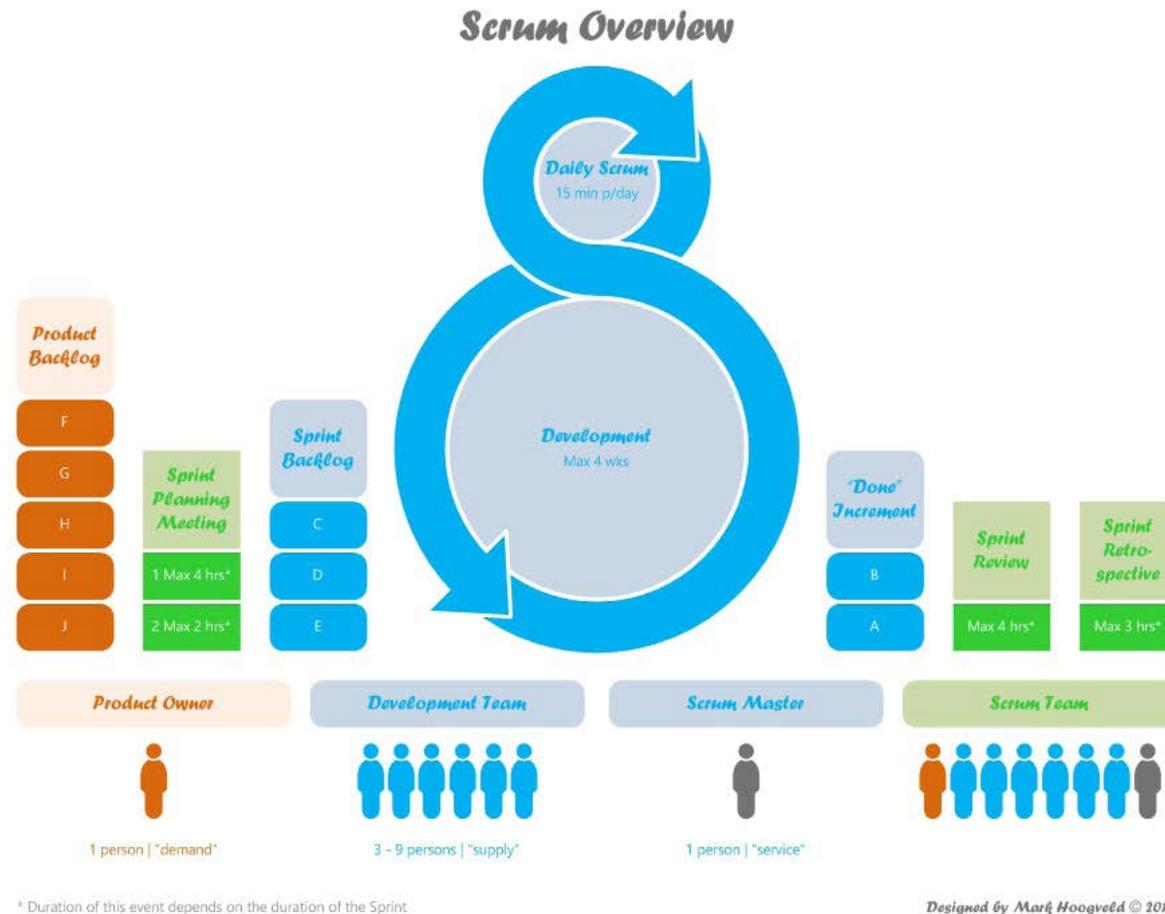
METHODOLOGY - AGILE



Working collaboratively and flexibly is very dynamic. The advantage of the **agile** approach is that **it allows for changes to be implemented more quickly**. It is based on a **network structure** and is **less hierarchical**. And yet, due to its flexibility it is **more difficult to control time lines and costs**. Rodrigues argues that the **best design strategy is to meet at the intersection of a user's desirability, the business viability and the technical feasibility**.



METHODOLOGY - SCRUM



“**Scrum**” is simply a formalized term to describe a **set of practices** for a professional product development team to work well together. **The focus is on keeping collaboration processes simple and organized.** It is not a “magical” cure-all solution. It still requires that the company hires the right people with the right aptitude and attitude for the team, and that the team uses common sense to work with each other, and more importantly, that the product we are developing finds the right product-market fit (lean start-up).



1 PROBLEM FINDING

Identification	Crowdsourcing
Orient	Invite
Explore	Acquisition
Analyse	Inception
Scoping	Front-end
Mapping	Full steam ahead
Discovery	Business market
Definition	Search area
Research	Value proposition
Empathize	Unsolicited ideas
Acquisition	Insights
Potential market	Interpretation
Observe&learn	Briefing
Preparation	
What's going on ?	

INNOVATION METHODOLOGIES

Innovation methodologies are mostly **similar** on the evolution's process: From a Problem to a solution here is a resume of all the keywords found and categorized in 5 groups.

5 LAUNCH

- Shipping
- Delivery
- Release verification
- Evolution
- Realization
- Distribute
- Production
- Commercialization

2 IDEATION

Raise ideas	Concept
Conceptual mapping	Development
Forecasting	Innovation
Development	Flow
Explore	Deep dive
Incubation	Scenarios
Desirability	Case selection
Assimilation	Data collection
Recognize opportunity	
Outline concept	
Design	
Creative thinking	
Generate solutions	
External ideas	
Invent	

3 FILTERING

Concepting	Drawing
Testing	Synthesis
Definition	Find resources
Refining	Customer discovery
Viability	
Product design	
Prioritization	
Proof of concept	
Forge the solution	
Development	
Selecting ideas	
Illumination	
Experimentation	
Design&Engineer	
Detailed Design	

4 VERIFICATION

- Prototype
- Implementation
- Validation
- Development
- Evaluation
- Feasibility
- Create value
- Experimentation
- Construction
- Modeling
- Redesign&produce
- Product optimize
- Customer validation



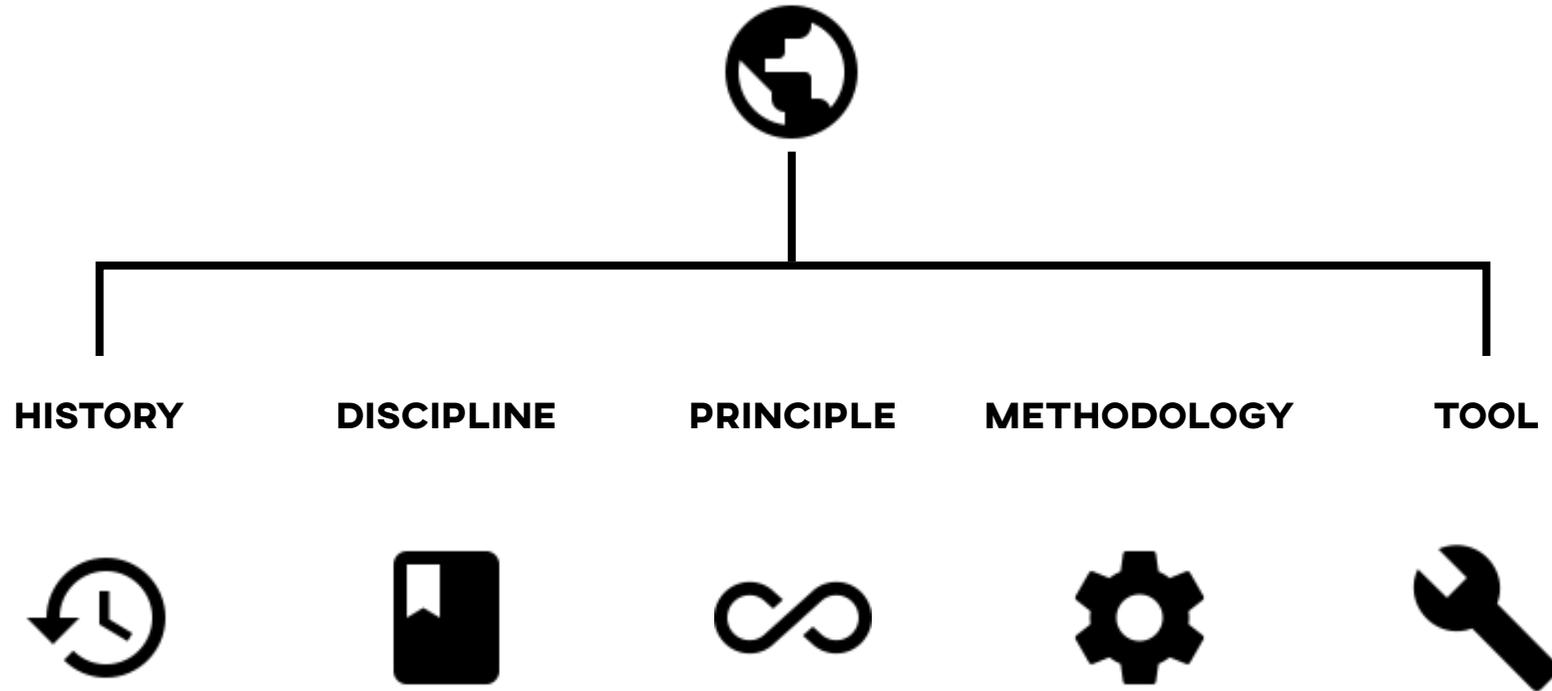
TOOLS

Tools are really large and generally vary between every profession. To don't deep on it we can try to determine some categories which will follow the steps of the used process. Research is about discovering and speaking using **internet, books, interactions with people**. Ideation is about being creative by using drawing, being open minded, using some defined tools as **6 thinking hats** or **brainstorming**. Then we have to prototype using some **softwares** or some **materials**. There is also an organizing part which can be done by online softwares and others calendars to be structured as a team.



STATE OF DESIGN

CASE STUDY



PRINCIPLE - METADESIGN

RE-DESIGNING DESIGN

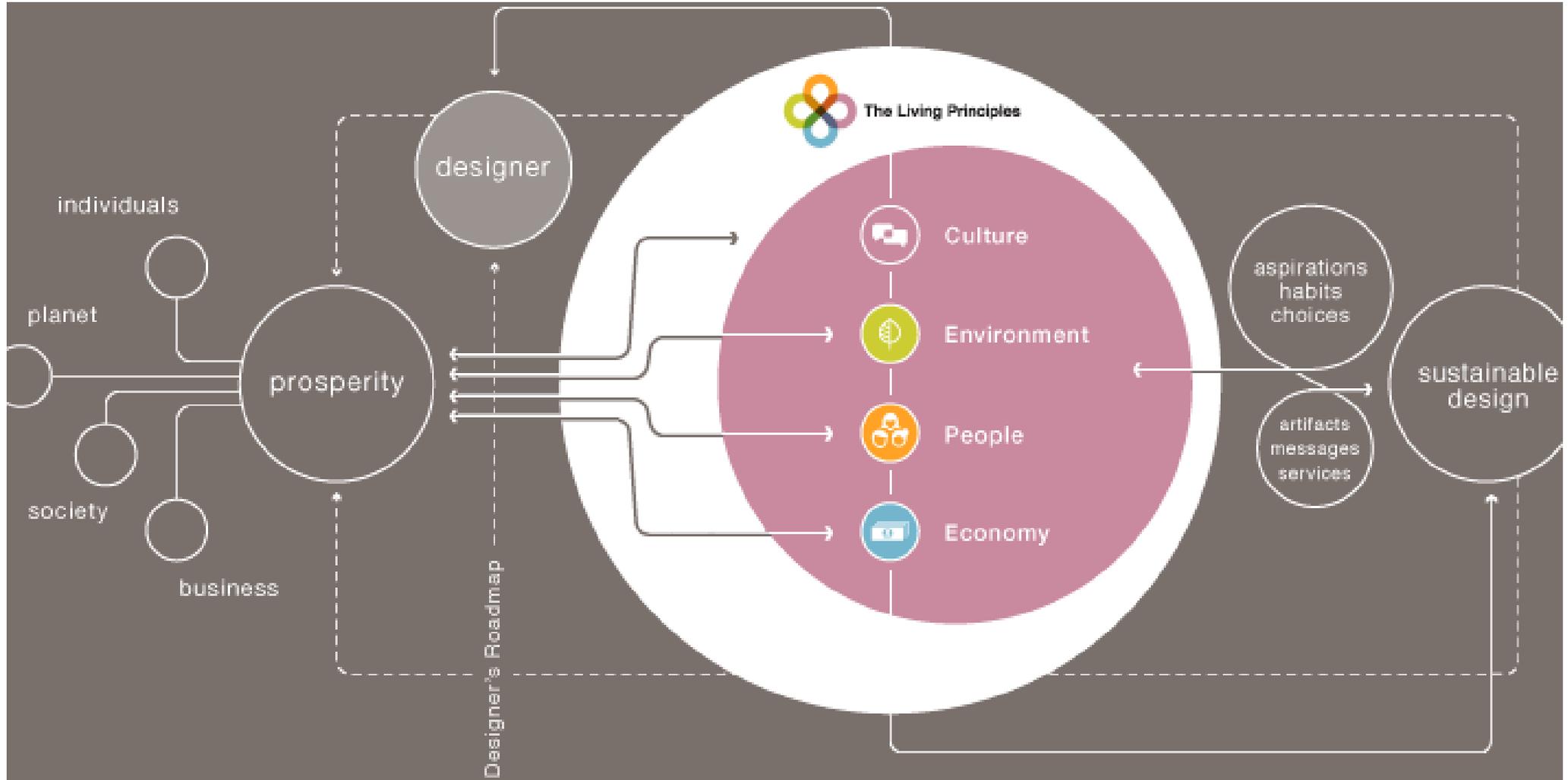
"We define **metadesign** as an emerging **framework of practice** that will enable designers to change, or create, behavioural paradigms. This is an ambitious task that cannot be achieved by what we currently understand as 'design'. Paradigms are complex, self-perpetuating systems that are co-sustained by habitual processes that are part of the prevailing **social, cultural, economic, aesthetic, psychological, technological and linguistic** milieu. As these factors reinforce one another, they fiercely **resist change** unless they can be addressed in a comprehensive and joined-up way. As this also means identifying simultaneous points of intervention we must devise more comprehensive and radical agenda that includes team-based practices. The ultimate aim of metadesign is to bring about a more **ecological and 'synergy-oriented' society** to replace the existing 'product-oriented' world of consumption and profits. "

	Holarchic	Emancipatory	Participative	Socially Inclusive	Top-down	Bottom-up	Entrepreneurial	Emergence-aware	Affective	Self-creative	Flexible	Green
Creative Democracy		●	●	●		●	●		●	●	●	○
Design Futures	●	●	●	○		●	●	●	○		○	○
Critical Design					○		●	●				
Design Management	●		●		●		○	●	○		●	
Sustainable Design				○	●	●	○	●				●
Eco-Design		●	○	●		●	○		○	○	●	●
Interaction Design			○		●		○	○	○	○	●	○
Lifestyle Design	●	○		○	●		●	●	●		●	○
Metadesign	●	●	●	●	○	●	●	●	●	●	●	●
Open Design		●	●	●		●		○	○	●	●	
Service Design				○	●	●	●		○		●	○
Strategic Design	●	●	●	●	●		●	●				○
Transformative Design		●	●	●		●			○	●	●	●

Key: ● yes ○ maybe



PRINCIPLE - THE LIVING PRINCIPLES



ENVIRONMENT Actions and issues that affect natural systems, including climate change, preservation, carbon footprint and restoration of natural resources.

PEOPLE Actions and issues that affect all aspects of society, including poverty, violence, injustice, education, healthcare, safe housing, labor and human rights.

ECONOMY Actions and issues that affect how people and organizations meet their basic needs, evolve and define economic success and growth.

CULTURE Actions and issues that affect how communities manifest identity, preserve and cultivate traditions, and develop belief systems and commonly accepted values.



PRINCIPLE - THE LIVING PRINCIPLES

SAMPLING OF INFLUENTIAL SUSTAINABILITY MANIFESTOS, PRINCIPLES, VISIONS, FRAMEWORKS AND TOOLS FROM THE LAST 50 YEARS.



ENVIRONMENT



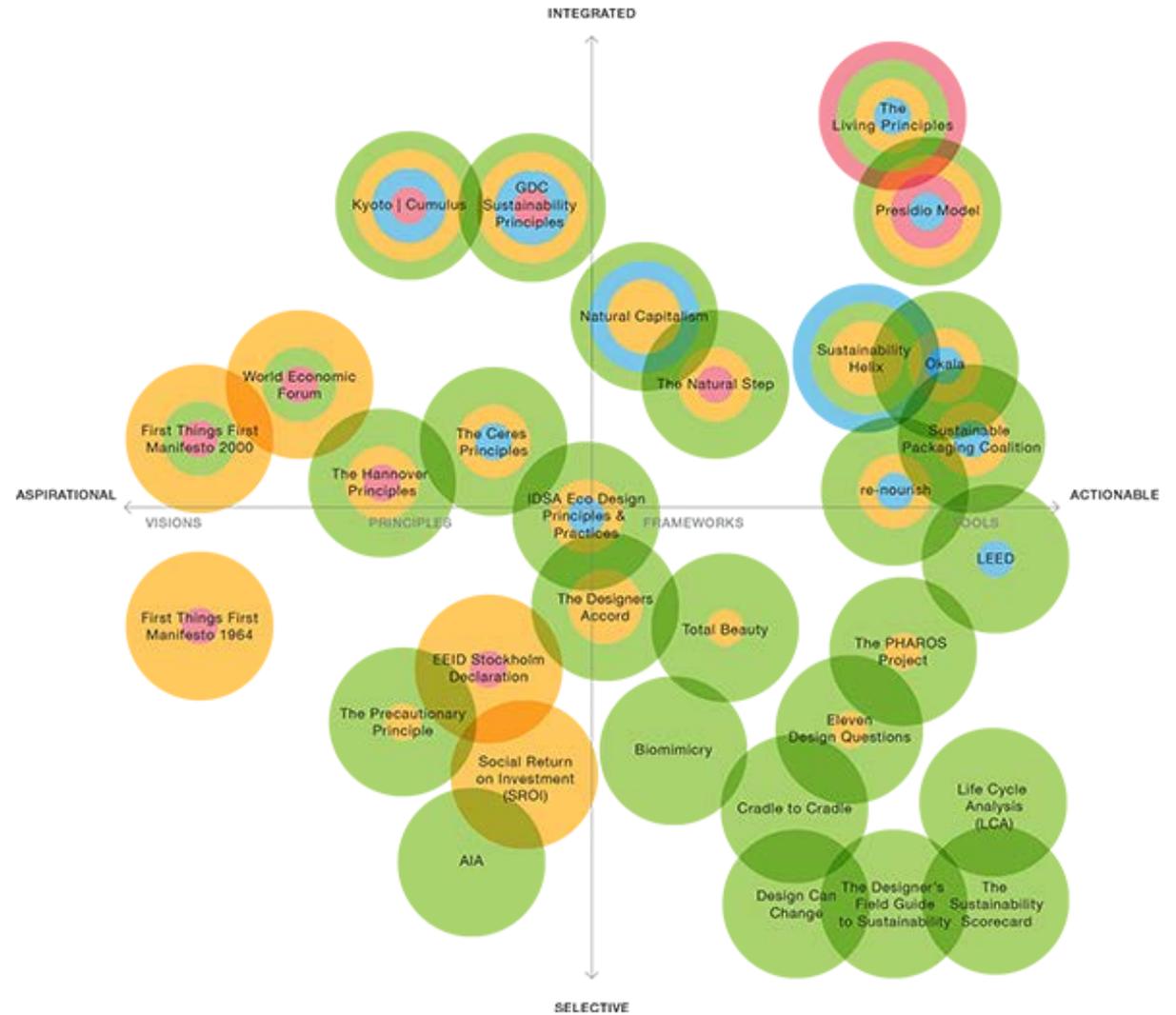
PEOPLE



ECONOMY



CULTURE



Made by The Living Principles project

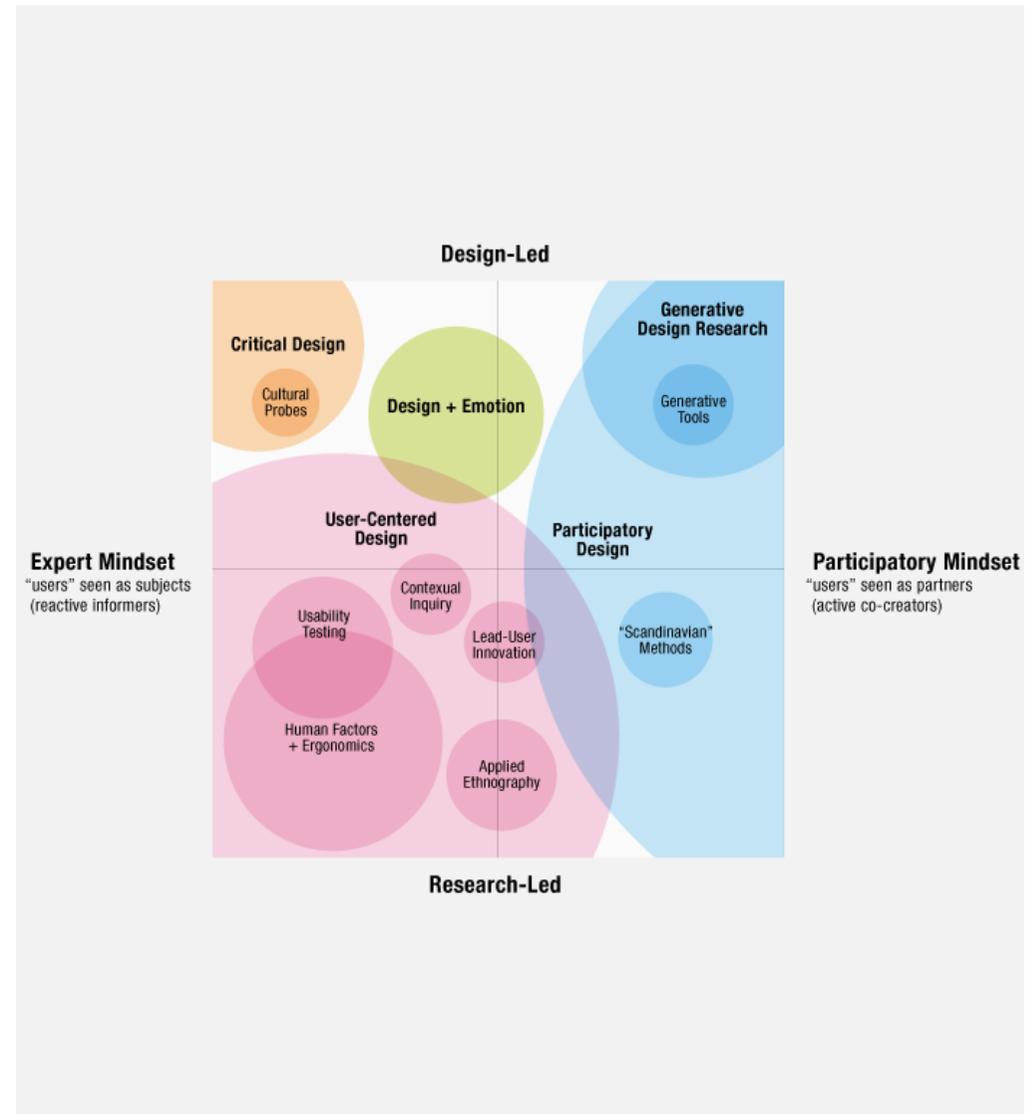


PRINCIPLE - DESIGN LED

DESIGN LED

What are the core values of Design Led Innovation?

1. Have an Outside-In mindset
2. Use Empathy for users & stakeholders
3. Embrace Diversity
4. Think Holistically
5. Collaborate in multi-disciplinary teams
6. Generate many new ideas
7. Rapid Prototyping
8. Fail Early & Often



PRINCIPLE - UNIVERSAL PRINCIPLES OF DESIGN

UNIVERSAL PRINCIPLES OF DESIGN

1. Equitable Use
2. Flexibility in Use
3. Simple and Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Low Physical Effort
7. Size and Space for Approach and Use

The design is useful and marketable to people with diverse abilities.

The design accommodates a wide range of individual preferences and abilities.

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

The design can be used efficiently and comfortably and with a minimum of fatigue.

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.



PRINCIPLE - DESIGN FOR HAPPINESS

It consists of 14 emotions:

7 pleasant: desire, pleasant surprise, inspiration, amusement, admiration, satisfaction and fascination.

7 unpleasant: indignation, contempt, disgust, unpleasant surprise, dissatisfaction, disappointment and boredom.

Positive Design:

1. Creates possibilities

Positive Design envisions and realizes optimistic futures. Rather than merely reducing people's problems, it offers them opportunities to improve their wellbeing.

2. Supports human flourishing

Positive Design uplifts people. It enables and inspires people to develop their talents, to increase their freedom, to deepen their relationships, and to contribute to their communities.

3. Enables meaningful activities.

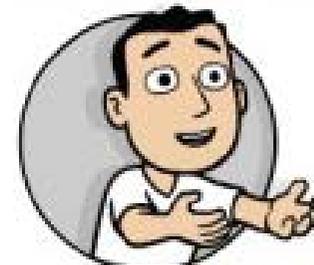
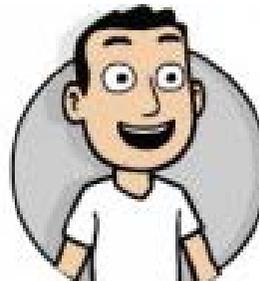
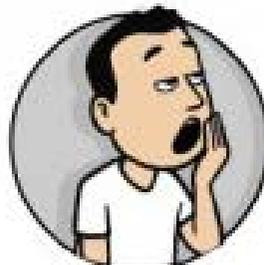
Positive Design encourages people to balance pleasure and virtue. It stimulates people to engage in meaningful activities that are rooted in their deeply held values.

4. Embraces rich experiences.

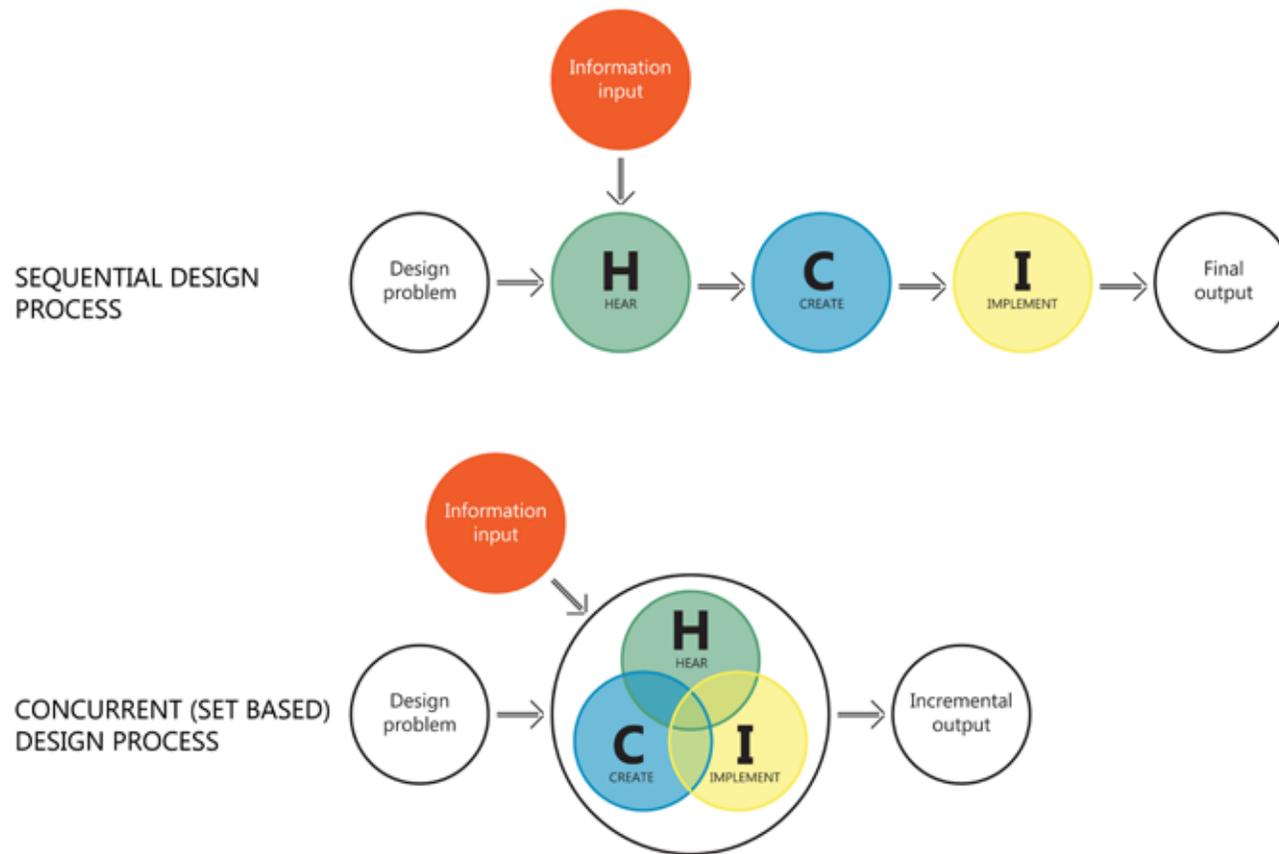
Positive Design affects the complete pallet of human experiences. Beyond short-term pleasures, it focuses on lasting experiences that involve both positive and negative emotions.

5. Accepts responsibility

Positive Design is genuine in its purpose and intention. It takes responsibility for its short- and long-term impact on individuals as well as on communities and society.



METHODOLOGY - DESIGN MANAGEMENT

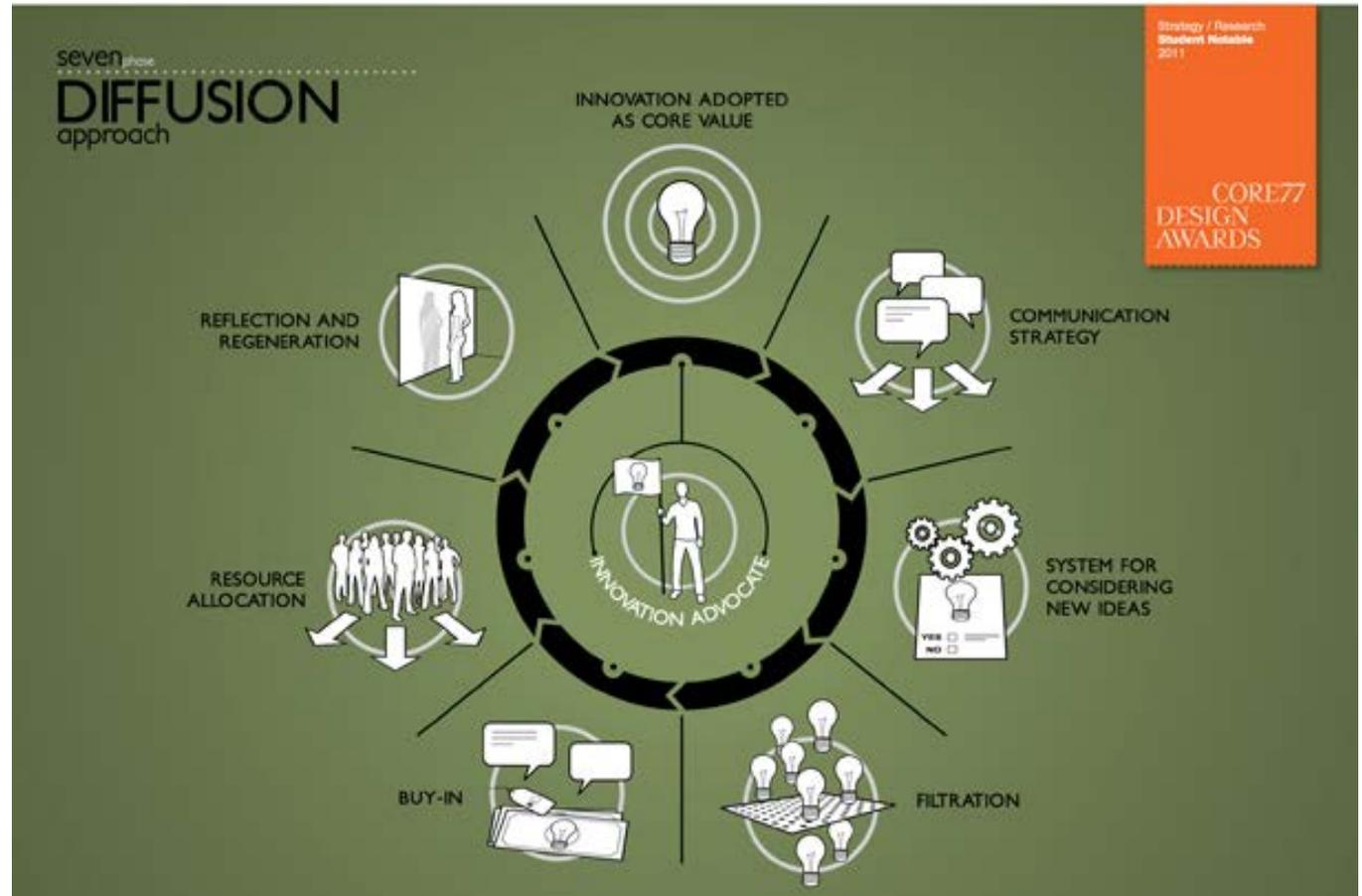


Why change the design process to be messier & less sequential?

"A significant part of the concurrent design method is that the individual engineer/designer is given much more say in the overall design process due to its collaborative nature. This property of the concurrent design method fits much better with the AlAD philosophy of the **designer being more in control of the outcome, instead of only being the one at the end of the line forming someone else's ideas into a physical product.** Furthermore, **giving the designer ownership improves the productivity of the designer and quality of the product.** This claim is based on the assumption that people who are given a sense of gratification and ownership over their work tend to work harder and design a more robust product, as opposed to an employee that is assigned a task with little say in the general process."



METHODOLOGY - DESIGN MANAGEMENT



The team's thesis paper postulates **"it is not an inability to generate ideas that typically prevents innovation, and therefore strategic advantage, but rather the inability to successfully diffuse new ideas throughout an organization."** Identifying the challenges and best practices **across various industries**, they analyzed their findings to design the framework for a **7-phase** diffusion approach which can be adapted and used in **wide range of organizations**: from small business to non-profit, across a many specialties.

"Good ideas come from a variety of sources. Budget for it! Budget for experimentation; this should consider potential successes as well as failures. **Create a culture that believes in innovation.** There is so much talk of how to create innovative ideas and not enough focus on **how to actually implement them from a management standpoint. This led us to study the implementation of change in organizations."**



METHODOLOGY - LATERAL THINKING

Random Entry Idea Generating Tool

The thinker chooses an object at random, or a noun from a dictionary, and associates it with the area they are thinking about.

Provocation Idea Generating Tool

The use of any of the provocation techniques—wishful thinking, exaggeration, reversal, escape, distortion, or arising. The thinker creates a list of provocations and then uses the most outlandish ones to move their thinking forward to new ideas.

Movement Techniques

The thinker develops provocation operations[clarification needed] by the following methods: extract a principle, focus on the difference, moment to moment, positive aspects, special circumstances.

Challenge Idea Generating Tool

A tool which is designed to ask the question "Why?" in a non-threatening way: why something exists, why it is done the way it is. The result is a very clear understanding of "Why?" which naturally leads to fresh new ideas. The goal is to be able to challenge anything at all, not just items which are problems. For example, one could challenge the handles on coffee cups: The reason for the handle seems to be that the cup is often too hot to hold directly; perhaps coffee cups could be made

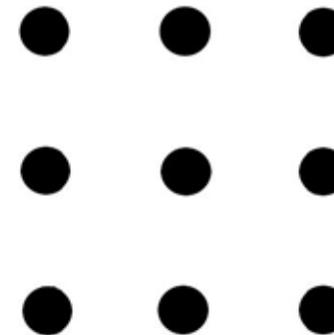
with insulated finger grips, or there could be separate coffee-cup holders similar to beer holders, or coffee shouldn't be so hot in the first place.

Concept Fan Idea Generating Tool

Ideas carry out concepts. This tool systematically expands the range and number of concepts in order to end up with a very broad range of ideas to consider.

Disproving

Based on the idea that the majority is always wrong (as suggested by Henrik Ibsen[2] and by John Kenneth Galbraith[3]), take anything that is obvious and generally accepted as "goes without saying", question it, take an opposite view, and try to convincingly disprove it. This technique is similar to de Bono's "Black Hat" of Six Thinking Hats, which looks at the ways in which something will not work.

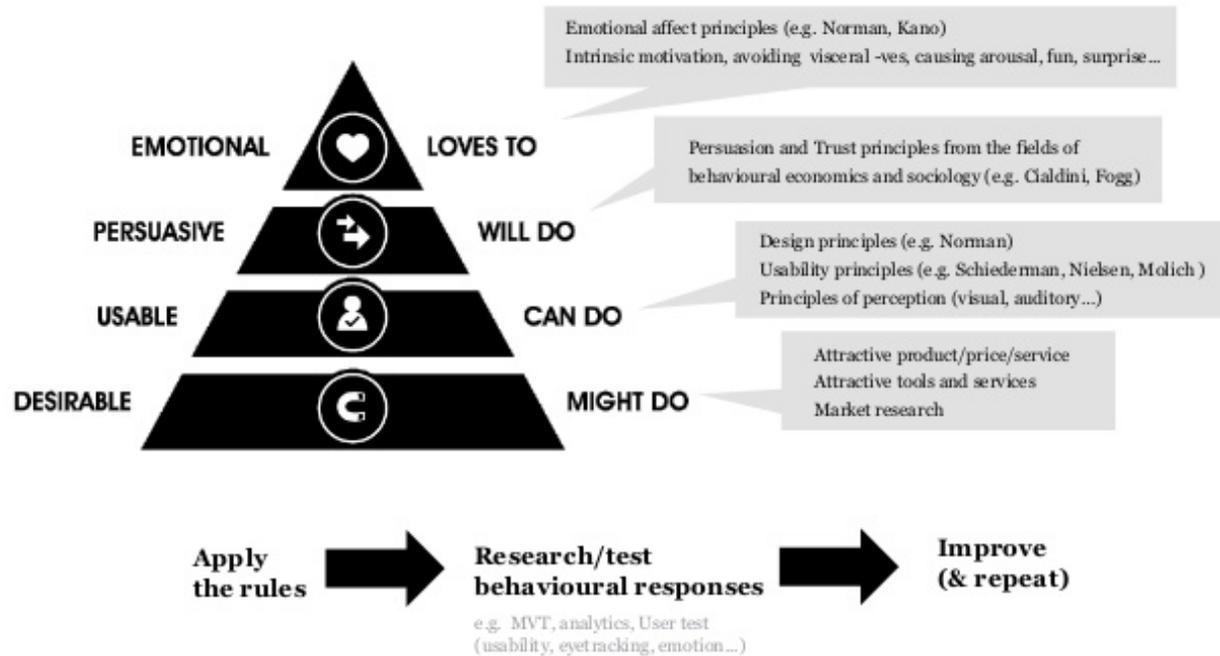


Classic Lateral Thinking Exercise:
Can you connect all of the dots with
just four straight lines, without lifting
your pen from the paper?



CREATING PROFITABLE CUSTOMER EXPERIENCE WITH HCA

BUILD IN PERSUASION & EMOTION WITH THE SAME UCD METHODS & ETHOS THAT ARE USED TO DELIVER USABLE DESIGN OF DESIRABLE PRODUCTS & SERVICES

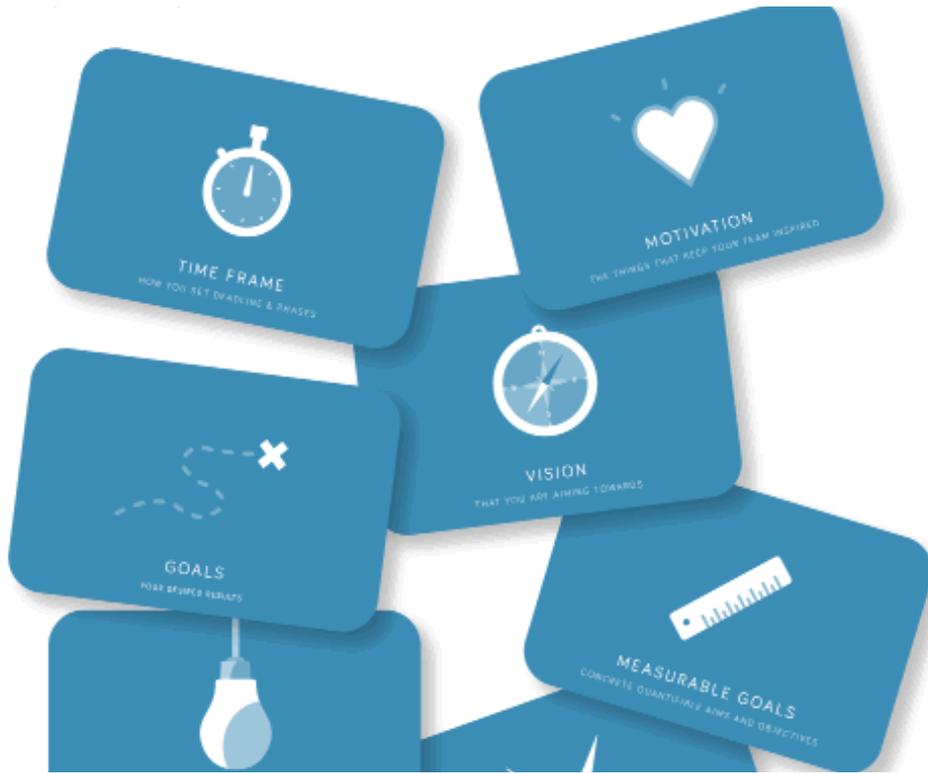


METHODOLOGY - PROFITABLE USER EXPERIENCE

What methods can we use to identify **possible future needs or meanings that customers might attach to a product**, which if discovered might significantly enhance the creative process and hence lead to radical innovation?

"People forget what you say, but they remember how you made them feel." Warren Beaty





COMPANY - METHODKIT

MethodKit is an **analogue tool for meetings and workshops or individual idea development**. The kits are **flexible frameworks** where each card represents a different perspective.

More about what MethodKit is:

There are **no rules or right amount of players** for the MethodKit decks. Arrange the cards to define and structure your thoughts **around them**. Use them for **discussing, planning and organizing**. They are building-blocks that create visual overview of your project, **to realize what needs to be prioritized and what is missing**. They are used for idea development, coaching sessions, client meetings, in workshops and to facilitate meetings.



COMPANY - METHODKIT

PRINCIPLES

How to help people to choose the good solution without guiding them in a path.

1. A visual tool
2. As little information as possible on the cards
3. Description without direction
4. Straightforward language
5. The sweet spot between structure and creativity
6. Discussions are more important than the cards
7. Create tools out of the reoccurring things
8. Tool that makes you ask important questions
9. Covering the Essentials
10. The cards will not do the work for you



COMPANY - UNICEF

PRINCIPLES

Principles for digital development

1. Design with the user
2. Understand the ecosystem
3. Design for scale
4. Build for sustainability
5. Be data driven
6. Use open data, open standards, open source, open innovation
7. Reuse and improve
8. Address privacy & security
9. Be collaborative



COMPANY - WORLDBLU

PRINCIPLES

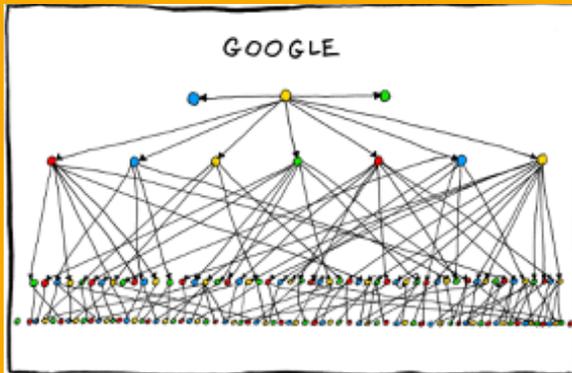
These 10 Principles of Organizational Democracy must be put into practice on both the individual and leadership levels, and be supported by democratic systems and processes to have a successful democratic organization.

1. Purpose and Vision
2. Transparency
3. Dialogue + Listening
4. Fairness + Dignity
5. Accountability
6. Individual + Collective
7. Choice
8. Integrity
9. Decentralization
10. Reflection + Evaluation



COMPANY - GOOGLE

INTERN PRINCIPLES



Google " Ten things we know to be true"

1. Focus on the user and all else will follow.
2. It's best to do one thing really, really well.
3. Fast is better than slow.
4. Democracy on the web works.
5. You don't need to be at your desk to need an answer.
6. You can make money without doing evil.
7. There's always more information out there.
8. The need for information crosses all borders.
9. You can be serious without a suit.
10. Great just isn't good enough.



METHODOLOGY

21 principles for innovating in the real world from IDEO's Diego Rodriguez

1. Experience the world instead of talking about experiencing the world.
2. See and hear with the mind of a child.
3. Always ask: How do we want people to feel after they use it?
4. Prototype as if you are right. Listen as if you are wrong.
5. Anything can be prototyped and you can prototype with anything.
6. Live at the intersection of desirability, viability and feasibility.
7. If you're going to be leading innovation, develop a taste for the many flavors of innovation.
8. Most new ideas aren't.
9. Killing good ideas is a good idea.
10. Baby steps often lead to big leaps.
11. Everyone needs time to innovate.
12. Try cultivating instead of managing.
13. Do everything right and you'll probably fail.
14. Failure sucks, but instructs. (If you let it.)
15. Celebrate errors of commission. Stamp out errors of omission.
16. High EQ teams rule.
17. It's not the years, it's the mileage.
18. Knowing when to orbit the hairball.
19. Have a point of view.
20. Never settle. Be remarkable. (Shoot to do epic stuff.)
21. Doing is the resolution of knowing.



COMPANY - IDEO

METHODOLOGY

Rules of Brainstorming

1. Defer judgement.
2. Encourage wild ideas.
3. Build on the ideas of others.
4. Stay focused on the topic.
5. One conversation at a time.
6. Be visual
7. Go for quantity

And

- Stick to the rules
- Work quickly
- No idea is refused.



COMPANY - IKEA

PRINCIPLES

5 Dimensions of Democratic Design

1. Form
2. Quality
3. Low price
4. Sustainability
5. Function



COMPANY - IDEASCALE

METHODOLOGY



A methodology from Ideascale

1. Ideation: the gathering of promising ideas at various stages of readiness
2. Build Team: assembling members who will help research and build the idea and potentially implement it, as well
3. Refine: additional investigation and information is conducted to augment the idea into a more finished proposal
4. Estimate: potential costs and values of the proposal are assigned
5. Review: the idea is rated across pre-defined criteria against business objectives and prioritized against other ideas
6. Fund: the most valuable ideas seek a budget for implementation
7. Deliver: the leading ideas are launched and the results are tracked



COMPANY - IDEASCALE

PRINCIPLES



10 Principles from Ideascale

1. Be curious, be ambitious. Dream
2. Contribute. Collaborate
3. Talk to the ones you have not met before
4. Share your surprise of discovering the unexpected.
Share your story
5. Cut the red tape by using scissors, card board, duct tape...
and produce a prototype
6. In the workshop areas, however, cutting your fingers
is not the way to cut red tape. Ask for help before you need it.
7. Take full advantage of the Hugging Corner
8. Don't worry about making a mess here. The only way
you create a mess is by leaving it behind unattended
9. Be prepared to explain what on Earth you are doing
10. It's always better check the electrical wiring before you



METHODOLOGY - ESSAY

TAXONOMY

Level 2 and 3 relate
to objects

Level 4-7 relate
to design process

Level 8-10 relate
to philosophical matters

Meta-theoretical structure for classifying
abstractions of design theory

1. Direct perception of realities.
2. Description of Objects.
3. Behaviour of Elements.
4. Mechanisms of Choice.
5. Design methods.
6. Design Process Structure.
7. Theories about the Internal Processes of Designers
and Collaboration.
8. General Design Teories.
9. Epistemology of Design Theory and the Theories of Objects.
10. Ontology of Design.



COMPANY - IT WORKSPACE

PRINCIPLES

Human driven development

1. Flexible working hours.
2. Keep the team fresh.
3. Good hardware and furniture.
4. Environment freedom.
5. Courtesy.
6. Quiet working condition.
7. Decent Salary.
- (8. Let them see the big picture)



INSPIRATION

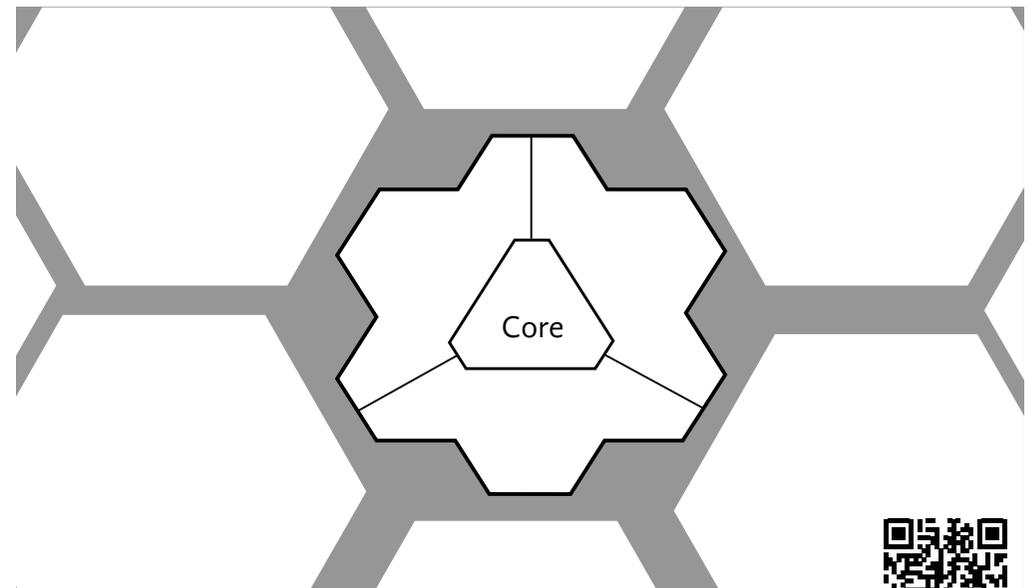
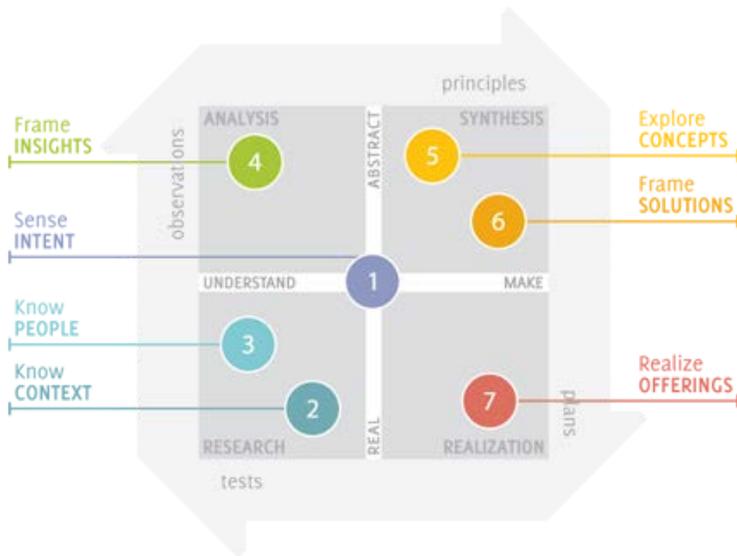
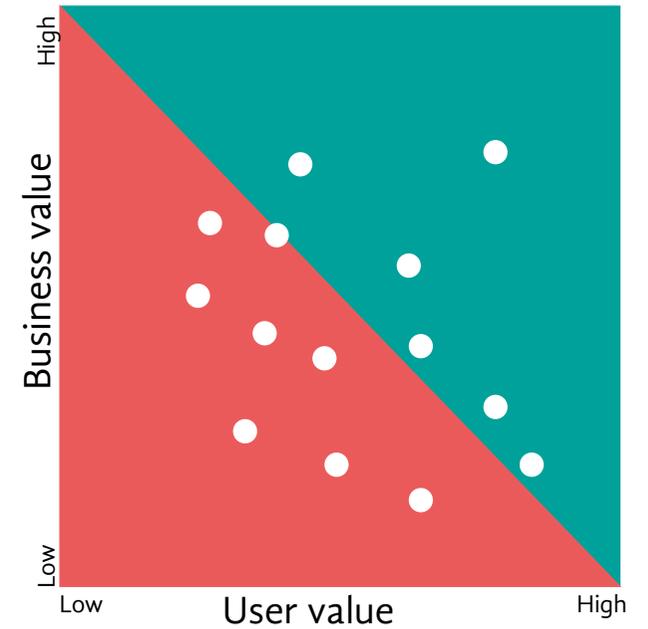
*" By three methods we may learn wisdom:
First, by reflection, which is noblest;
Second, by imitation, which is easiest;
and third by experience, which is the bitterest."*

Confucius



101 DESIGN METHODS Vijay Kumar

This book teaches a structured approach for **driving w** in an organization and is divided into 7 parts: **Sense Intent, Know context, Know people, Frame insights, Explore concepts, Frame solutions, Realize offerings.**



DESIGN IS THE PROBLEM

Nathan Shedroff

Product design can have a tremendous impact on the world in terms of usability, waste, and resources. In “Design is the problem”, Nathan Shedroff examines how the endemic culture of design often creates unsustainable solutions, and shows **how to ensure that design processes lead to more sustainable products and services.**



TABLE 2.1: 2008 Qualifying and Rating Criteria from Highwater Research

GOOD COMPANY Intention	EMPLOYEES Working Conditions Employee Relations Compensation and Benefits Employee Wellness
ENVIRONMENTAL Genetic Modification Nuclear Power Fossil Fuels Clearcut Logging Hazardous Waste Industrial Farming Animal Cruelty	PRODUCT AND SERVICES Product Accessibility Societal Contribution Product Design Extended Producer Responsibility
SOCIAL Human Rights Unethical Conduct Gambling Tobacco Weapons Fast Food Alcohol Sexually Explicit Material Explicit Violence	SUPPLY CHAIN Supplier Standards and Selection Supplier Chain Engagement Supply Chain Transparency
LEADERSHIP Financial Management Social and Environmental Commitment Social and Environmental Execution Management / Board Integrity Stakeholder Engagement	WOMEN AND CHILDREN Employment Practices Women in Leadership
COMMUNITY Community Relations Economic Impact Philanthropy	DIVERSITY Employment Practices Diverse Leadership
CUSTOMERS Customer Satisfaction Customer Safety Disclosure and Labeling	MATERIALS Raw Material Demand Material Waste Molecular Waste
	ENERGY Energy Demand Energy Sourcing Energy Efficiency
	WATER Water Use Water Quality
	CLIMATE Greenhouse Gases Policy Impacts

we've created and a host of other solutions we have much to learn from. Again, nature's solutions are more efficient, more sustainable, and create no waste. Nature can serve both as a source of inspiration and a source of materials and processes that we can use and emulate to create better, more sustainable solutions.

Biomimicry asks questions of designers and developers that open us to new answers:

- How does life make things? (Humans currently rely on heat, heat, and treat to solve problems.)
- How does life make the most of things? (Nature often adds information/data to its solutions to make them perform better.)
- How does life make things disappear things into systems? (Nature's solutions aren't isolated from their contexts.)

In addition, Janine Benyus has observed several principles of nature that can be effective guides to help us find new solutions:

- **Self-assembly** (Many of nature's solutions, like crystals and DNA, self-assemble without the need for factories.)
- **Solar transformation** (Many of nature's solutions rely on the sun to power themselves.)
- **Power of shape** (The shape of molecules, organs, and organisms often powers nature's solutions.)
- **Color without pigments** (Several of nature's solutions use thin film interference to create color; for example, a chameleon's ability to change its color to that of its surroundings, rather than its pigment.)
- **Cleaning without detergents** (Leaves, for example, self-clean because of their surface texture, repelling dirt and water.)
- **Water-based chemistry**

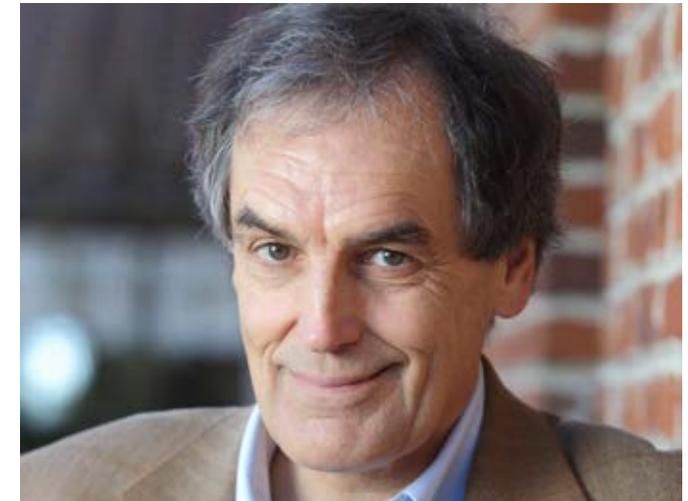
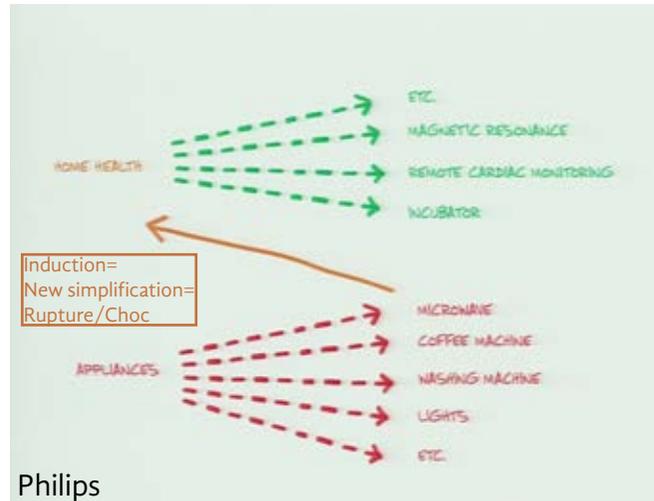
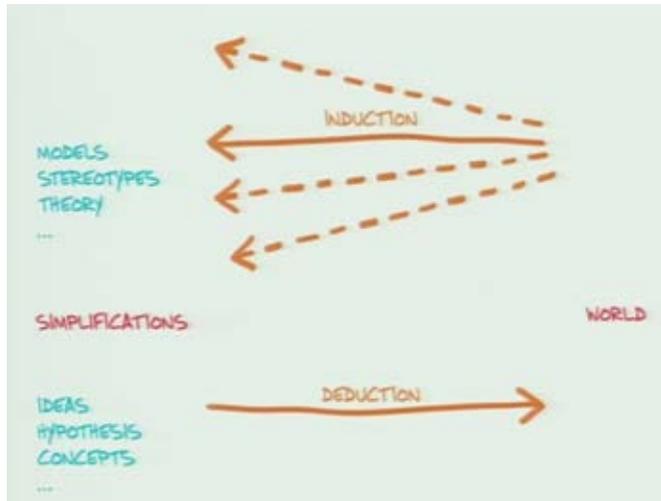
- **Metals without mining** (Plants and fungi extract metal from their environment without resorting to strip mining or methods that scar the earth.)
- **Green chemistry** (Many of nature's solutions are able to surpass ours without toxic chemistry.)
- **Timed degradation** (All of nature's solutions disintegrate at some point, leaving building materials for other processes instead of waste.)
- **Sensing and responding**
- **Growing fertility**
- **Life creates conditions conducive to life** (Instead of toxic conditions that destroy life.)
- **Decentralization and distributed control** (Resilient solutions are often decentralized.)
- **Simple building blocks** (Create deep complexity.)
- **Use of feedback loops** (Influence, rather than control.)
- **Redundancy**
- **Cyclic solutions**
- **Diverse solutions**

The Design Spiral

In the words of the Biomimicry Guild, nature can be "model, measure, and mentor." This means that nature can be used as a guide to translate functions into biological terms. We can strive to discover and emulate nature's processes and materials, evaluate solutions against principles, and learn from nature as a source of information not merely materials.



"FUTURE ISN'T PAST + TECHNOLOGY"



On his speech about “Kepler, Champollion, Darwin and pioneers of Big Data” he explains what is creativity and innovation.

- “If I ask how many colors on a rainbow ? You say 7 but are you really happy of this answer ? **We simplify the vision we have of the world.** It’s good but we can have a wrong vision of things.

- (first image) “**An example of a car is a... ? The car is an example of... ? On the first example I start from the simplification to get to the world so we have a limited number of answers. On the second question we start from the world to get to the simplification,** main answers are going to be our comfort zone but then we see the dotted arrows which are going to be much more free and creative. To think, mainly consist to simplify from the world and to use these simplifications. [...] **It’s impossible to get a perfect induction, truth doesn’t exist on the left side.** The only way to qualify a model is to see if it’s **useful.**”

-Thought on innovation about technology: “**Since humans tries to do like birds to fly they never succeed because their models were based on a wrong simplification.** And it’s working for everything, a good example is vocabulary: a 3D printer isn’t a printer, an electronic key isn’t a key, it’s a piece of plastic with a chip. *Badly to name things, adds to the misfortunes of the world.* [...] **The future isn’t to take the past and add technology, it’s about What could I do now this technology exist.**”

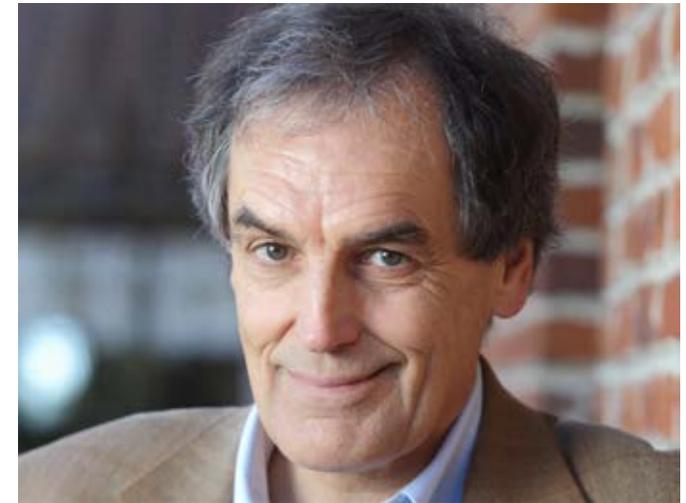
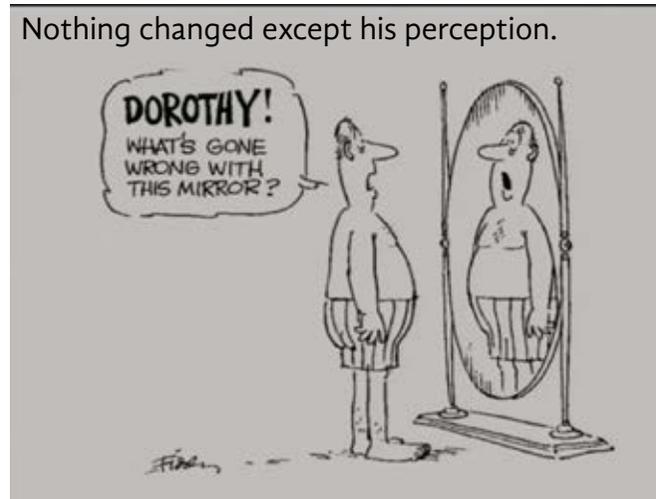
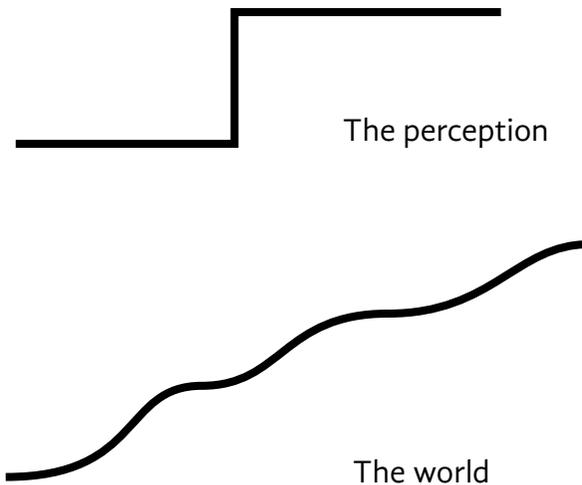
- Cause=>Consequence. Do we still need to know cause to understand consequence ? If deduction's arrow can be done by big data, induction can't because we need to "forget" (big data can't forget) and use **creativity to get these (new) concepts.**”

- “**More we are an expert more it’s difficult to change and to be creative on our field.**

Rules are changing so we need creative people.” (fr: www.youtube.com/watch?v=fMUJDRc7gNs)



"WHEN CONSTRAINTS MAKE YOU CREATIVE"



- “The **simplification is due to our way of thinking with words**, our thought are stuck by words.”
- “**Thinking outside the box isn’t a good concept** because we need boxes to frame our world, how do I know I go on the good direction ? And if we need frames either we have to build it either we are suffering it, so we shouldn’t try to get out but we should **think on a new box.**”
- “We sum speeds and the speed of the light is a constant. These are two laws and one **paradox**. The principle of relativity is reframing these two laws. When we have a paradox, **we don’t resolve a paradox, we reframe, we get a new perspective.**”
- “We suffer because we desire what we want to have. **Happiness is to continue to desire what one possesses.**”
- “Bacon: “**We must obey the forces we want to command**”, If I want to understand better what is thought and creativity I need to obey the forces that I want to command which are the change and the thought. [...] **The world is always changing, on a continuous way, for us people it’s exactly the opposite, we don’t change and when we change it’s a choc because we move from one simplification (box) to an other. Creativity is this state of change, this choc, this perception’s shifting.**”
- “On a project I choose my constraints, the structure imposes me constraints.”
- “Creativity and innovation are differents. If a company get too much on innovation it will becomes less creative because on their idea to be innovative on a product they might forget that on the creative part they could work on a new service”.
- “Two movements of thought: we go to the new idea and then to the good idea.”
- “Creativity is about individual people, innovation is about group of people.



SEBASTIAN DETERDING: WHAT YOUR DESIGNS SAY ABOUT YOU

Values: what is moral, what is not ? We can get extreme different values.

“It’s difficult to set values, it’s better to try to bring to you a set of questions which will, layer by layer, permits to provide to you answers about what you believe what is moral or not for users.”

- What are your intention when you’re designing something ?

Even if it’s a well intended applications it can have some side effects which can be negative.

- What are the effects of what you’re doing ?

Of the product, of the fact to use it,...

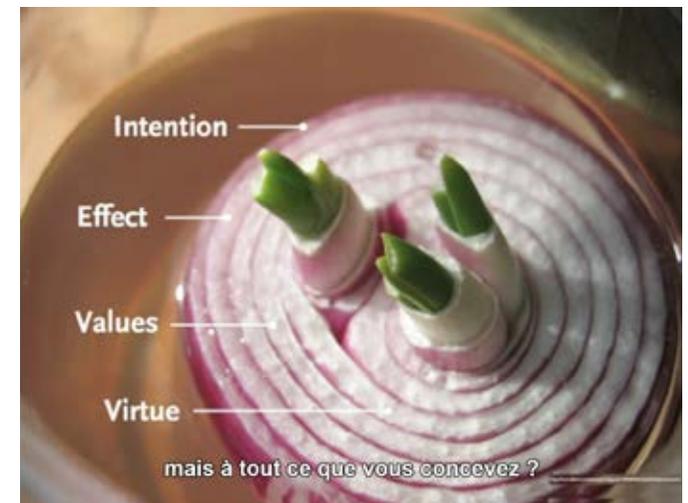
- What values do you use to judge?

Is it ethical or not ? Aristote: ethics is about how to live life well, also called virtue which is living up to your full potential.

- What is the vision of the good life do your design convey ?

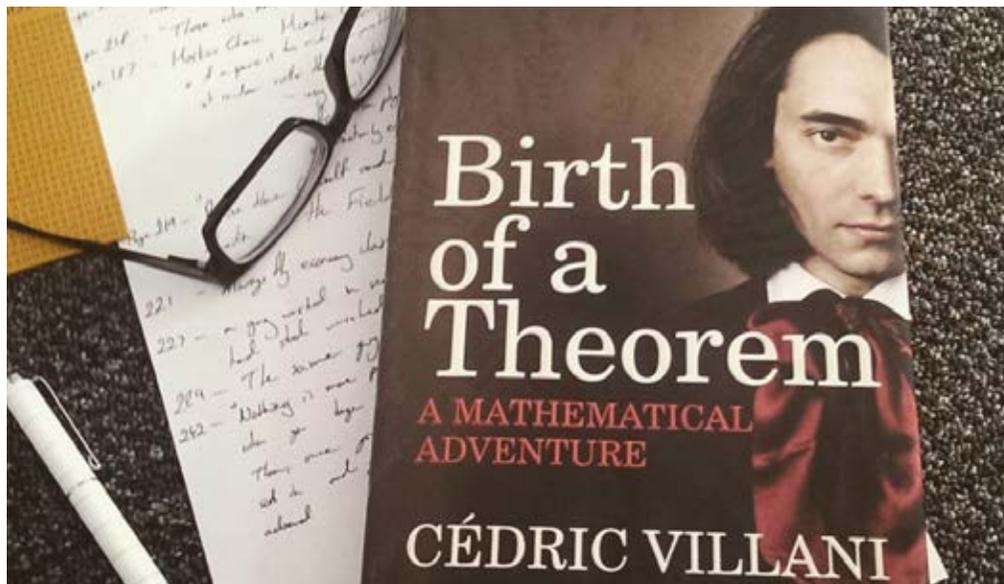
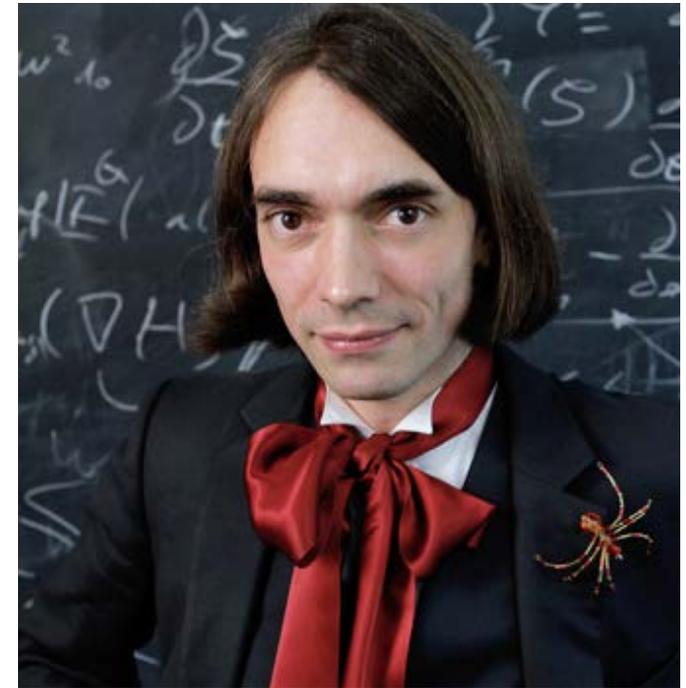
- What vision of the good life do you, yourself, want to live ?

It will be automatically transfered to the products you create.



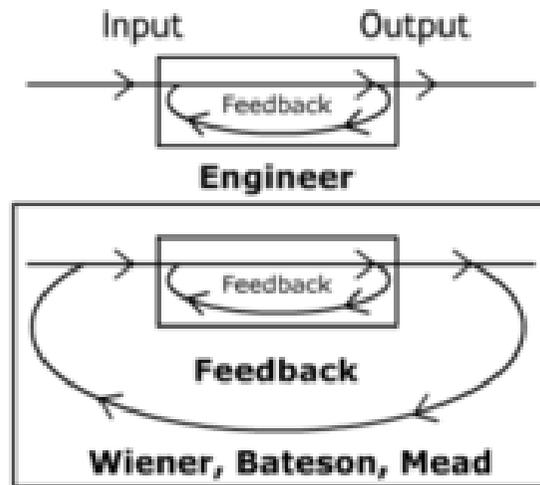
"HOW TO GET AN IDEA"

- Documentation
- Motivation
- Environment
- Exchange
- Constraint
- Dosing (between work and life)
- Perseverance (bring luck)



"THE ECOLOGY OF MIND" GREGORY BATESON

Gregory Bateson (1904-1980) was an English anthropologist, social scientist, linguist, visual anthropologist, semiotician and cyberneticist whose work intersected that of many other fields. Always searching for the bigger picture he used the single term cybernetics in reference to an aggregate of these ideas that grew together shortly after World War II.



Our epistemological premises dualistic prevent us from being sensitive to the relationship between the various parts of the ecosystem of ideas which we participate. **They do not capture the links, organization, structure.** It loses the form in favor of the substance, **quality in favor of quantity.**

The scientific approach ignores the relationships between things and between things and us. Thus we come to a dehumanized science and as we hasten to apply to change our environment, we build a dehumanized world.

"The principal skill he taught was: to see the world not as a collection of things or persons, but a network of relationship, that network bound together by **communication**. This way of seeing is not an abstraction, but a tangible experience that can be cultivated by practice. It is, in itself, one of the answers to the deep crisis of mind that bedevils our civilization.

I discovered that when I see something, or hear a sound, or taste, it is my brain, or perhaps I should better say "mind"— it is "I" who create an image in the modality of the appropriate sense organ. My image is my aggregation and organization of information about the perceived object, aggregated and integrated by me according to rules of which I am totally unconscious. I can, thanks to Ames, know about these rules; but I cannot be conscious of the process of their working."

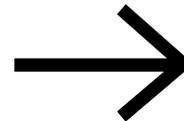


METAPHORS

To express an idea good orators often use metaphors: from a public speech to a methodology or a simple article, using an image is always better to touch your public and let them visualize a hole idea by using a daily event or a famous fact, here is a list of some of them.

THE IDEA

Work as a group
Being Innovative
Being active
Being creative
Leadership
Balancing
Global View



THE METAPHOR

A race
A sail on the sea
Adventure
A canyon
Climate
Panopticon
A moviemaker
Prepare a dish
A bird's eye
Conceptual map
Acrostic
Tautogram

Some new metaphor?

- Colors (monochrome,...)
- Time (a day,...)
- DNA, body
- Taxonomy
- ...



WHY? - A PROCESS

BENEFICE OF A PROCESS

- For days when ideas don't come quickly.
- Process make it easier to work in team.
- Showing process gives you more **credibility** with your client.
- Creative solutions come much easier to a mind **prepared with knowledge**.
- ...

CreativeProcess

For days when ideas don't come quickly

For when you have too many projects and ideas aren't coming to mind

Process makes it easier to work with a team

Why Have A Process

Creative solutions come much easier to a mind prepared with knowledge

Showing your process gives you more credibility with your client

Determining purpose and direction

Building the brief

What does the client want

What exactly am I trying to create

First Insight

Searching out and discovering the problem to solve

Background reason and application for design

Who am I talking to

Research and observation

Read, look, and collect - quantity

Travel - look for the unexpected

Saturation

Editing information

Filling up with creative fuel

Be part of the culture; watch for trends and get off the main drag

Visual mind-mapping; build upon ideas

The "mulling over" of information

Searching out and discovering the problem to solve

Mind-map with images and color

Incubation

Sub-conscious processing

Brainstorming: there are no bad ideas; quantity over quality; keep involved; don't criticize; discuss; evaluate ideas; build on others; eliminate distractions

The sudden solution

A vision: the voice in your head

Illumination

If you inform your brain, it will start providing you with solutions

Putting the solution into concrete form

Polish: take away excess ideas that hold no real ground

Verification

Checking for errors and usefulness

Find people to share ideas with, offer criticisms, and push each other's work further

Thoughts link to one another and branch out in an organic manner

Be unfashionable - don't be afraid of bad ideas - fashion dies quickly

Practice divergent thinking and you'll quickly get better

Other Insight

Experiment: make personal work, try something different, take chances, make mistakes, and push yourself further

Identify and overcome fear - if you don't, your work will become safe, normal, uninteresting, and without personal vision

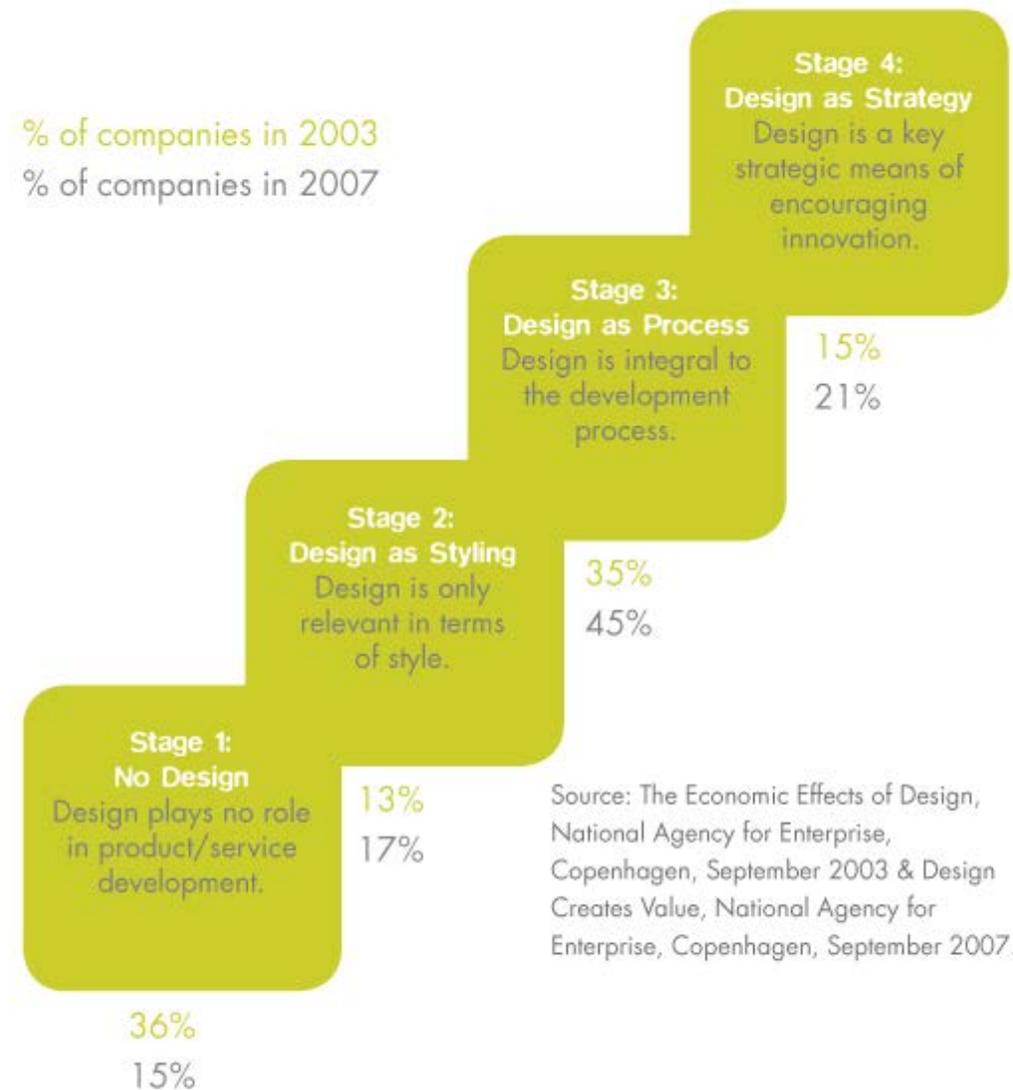
Work to define who you are, not how you fit in



HOW TO ? - MEASURE

THE DANISH LADDER

The Design Ladder was developed by the Danish Design Centre (DDC) in 2003 as a tool to describe **the level of design activity** in Danish businesses. The surveyed companies were categorised into one of the four stages of **design maturity** depending on their approach to design investment. The process has been made two time to show the evolution.



The logo for Design Council, featuring the words "Design" and "Council" stacked vertically in white, sans-serif font, set against a solid red square background.

**Design
Council**

WHY WE UNDERESTIMATE ECONOMIC VALUE DESIGN

<http://www.designcouncil.org.uk/news-opinion/why-we-underestimate-economic-value-design>

The logo for Design Council, featuring the words "Design" and "Council" stacked vertically in white, sans-serif font, set against a solid red square background.

**Design
Council**

THE VALUE OF DESIGN FACTFINDER REPORT

http://www.designcouncil.org.uk/sites/default/files/asset/document/TheValueOfDesignFactfinder_Design_Council.pdf

The logo for Innovation Management (IM), consisting of the letters "I", "M", and "I" in a large, pink, serif font, spaced out horizontally.

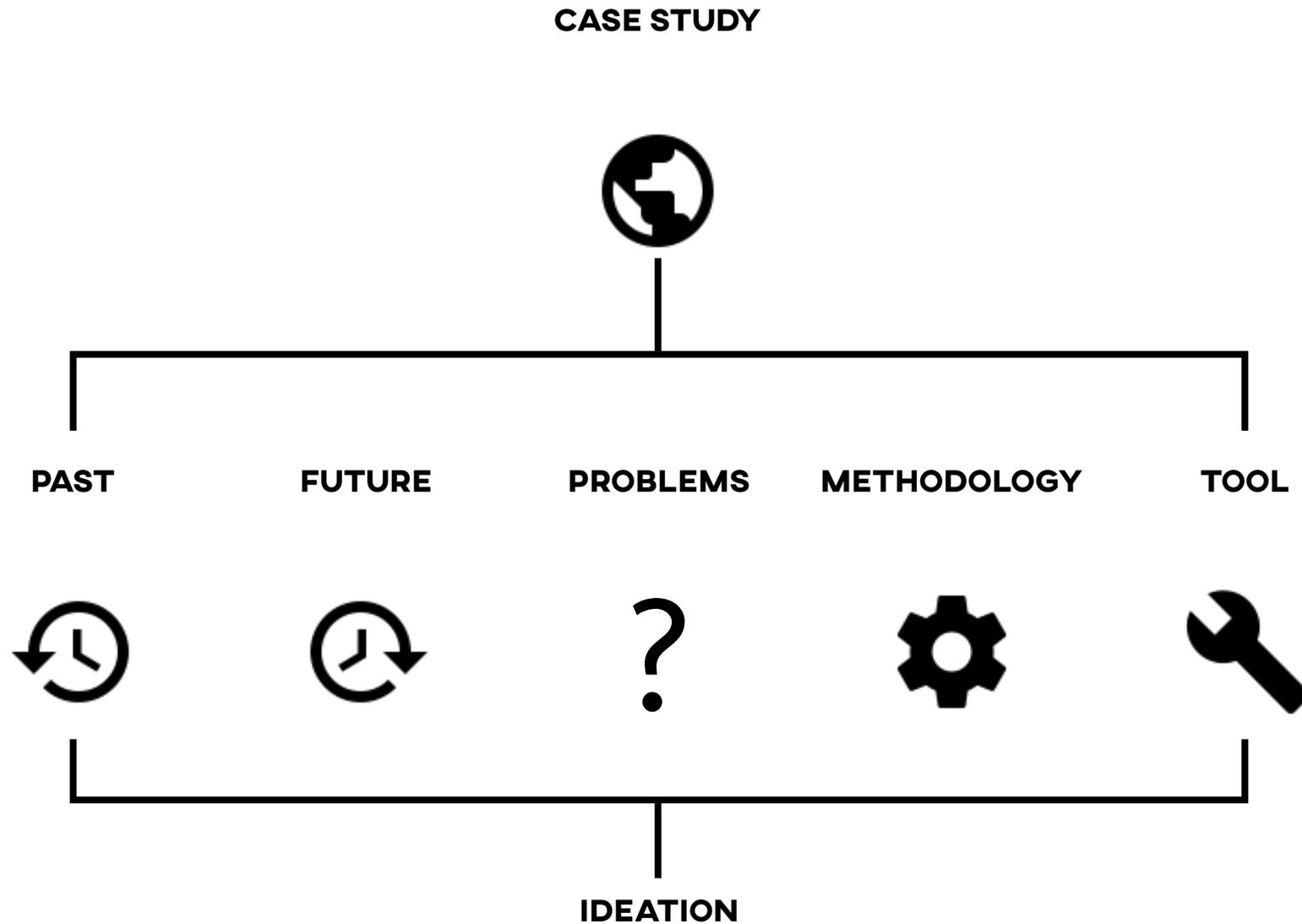
IM

MEASURING OPEN INNOVATION

<http://www.innovationmanagement.se/2014/03/19/measuring-open-innovation-a-metrics-based-management-toolkit-for-successful-innovation-teams-part-2/>



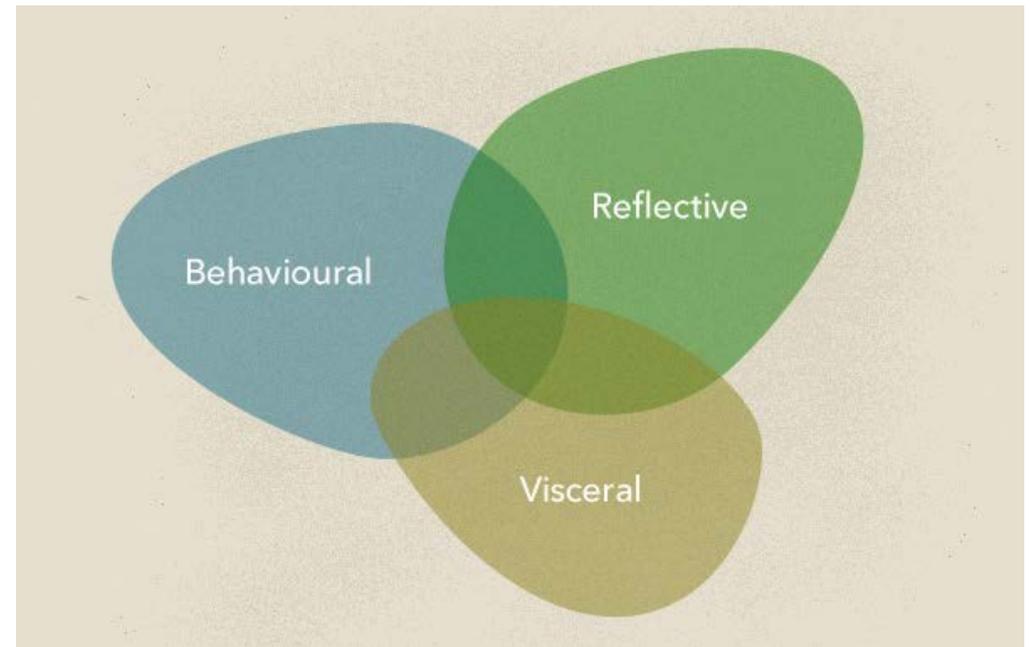
HOW TO ? ENLARGE YOUR VISION, YOUR CULTURE



CONCEPT - EMOTION

EMOTION AND DESIGN

A more careful examination of design's past indicates that we are perhaps "re-inventing the wheel", as the role of emotion in design has been more significant than the previous quotes suggest. From its very beginning, design has operated as a market-support instrument in a market-led, capitalist economy, by making products more desirable to buy. Design is by definition emotion-based. "Design, at its most basic level, is about rendering objects more desirable." (Greenhalgh, 1993) As such, design, and particularly industrial design, has always been concerned with eliciting emotional responses from prospective buyers and pleasing the users of products. Historical examples of products suggest that emotion in design is as old an approach as industrial design itself. What changes is the way emotion is framed.



CONCEPT - AUTOPOÏESE AS A PROCESS ?

The autopoiesis (of Greek auto: oneself, and poiesis: production creation) is the property of a system to produce itself, permanently and in interaction with their environment, and so maintain his organization despite the change of components (structure).

The living units are autonomous units capable of asserting their identity.



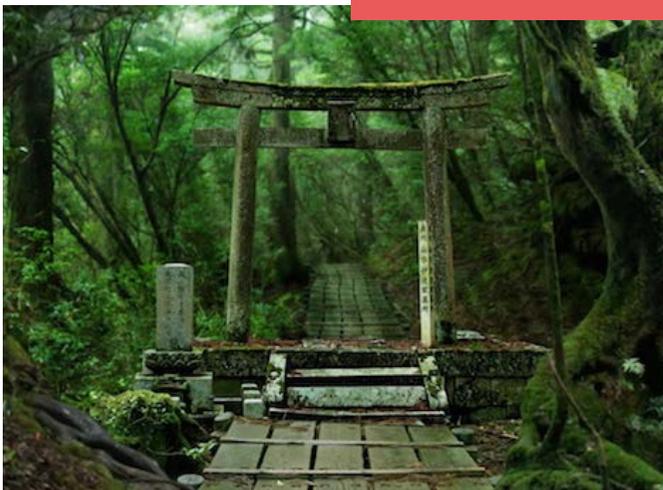
CONCEPT - JAPANESE ART AND AESTHETICS



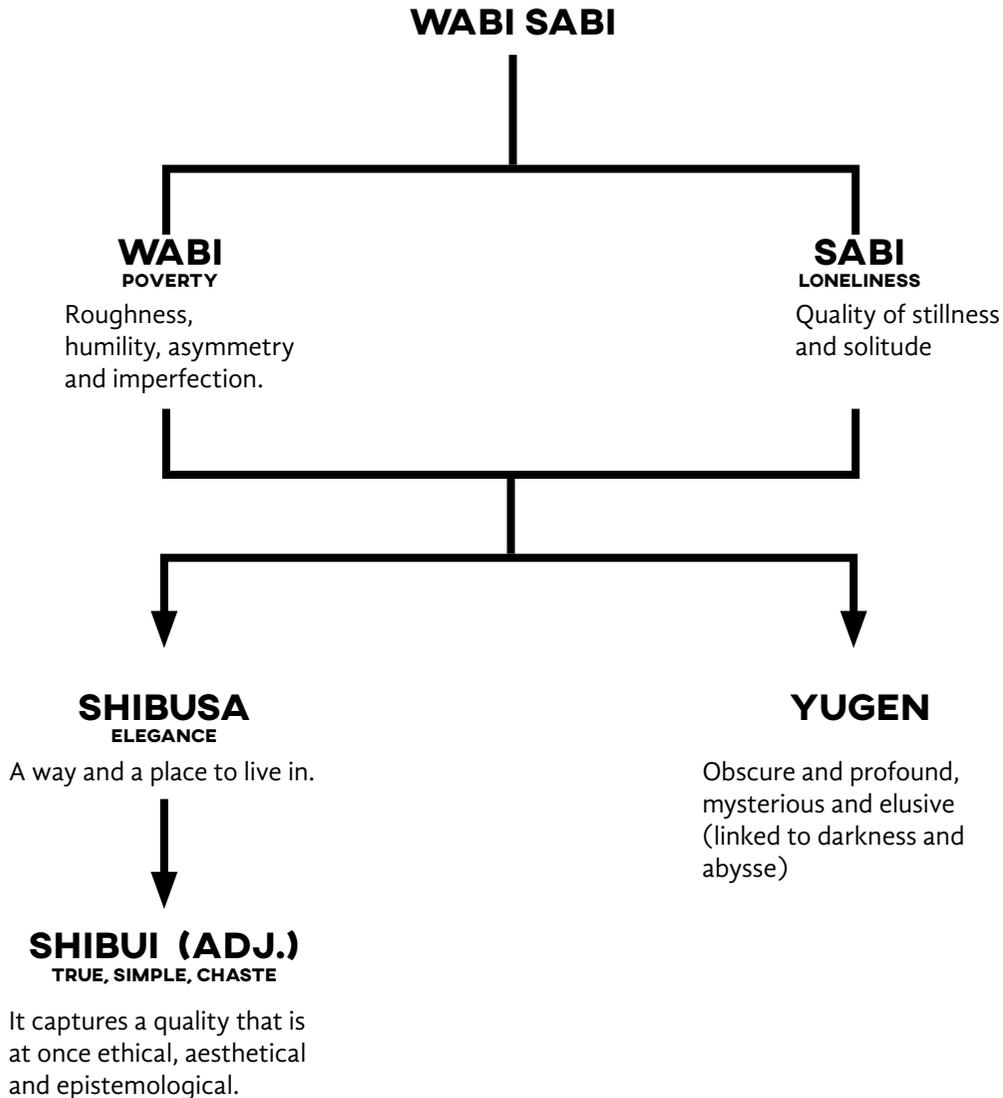
Exploring Japanese art and aesthetic as inspiration for emotionally durable design

Wabi-sabi is a Japanese expression for an aesthetic concept, or a spiritual disposition, derived from Zen Buddhist principles, and Taoism.

This ethic appears in the twelfth century; she advocates a return to simplicity, sobriety can positively influence peaceful existence, where we can recognize and feel the beauty of things imperfect, transitory and modest.



ENLARGE YOUR VISION



modernism	wabi-sabi
Primarily expressed in the public domain	Primarily expressed in the private domain
Implies a logical, rational worldview	Implies and intuitive worldview
Absolute	Relative
Looks for universal, prototypical solutions	Looks for personal idiosyncratic solutions
Mass-produced / modular	One-of-a-kind / variable
Expresses faith in progress	There is no progress
Future-oriented	Present-oriented
Believes in the control of nature	Believes in the fundamental uncontrollability of nature
Romanticizes technology	Romanticizes nature
People adapting to machines	People adapting to nature
Geometric organization of form (sharp, precise, definite shapes and edges)	Organic organization of form (soft, vague shapes and edges)
The box as metaphor (rectilinear, precise, contained)	The bowl as metaphor (free shape, open at top)
Manmade materials	Natural materials
Ostensibly slick	Ostensibly crude
Needs to be well-maintained	Accommodates to degradation and attrition
Purity makes its expression richer	Corrosion and contamination make its expression richer
Solicits the reduction of sensory information	Solicits the expansion of sensory information
Is intolerant of ambiguity and contradiction	Is comfortable with ambiguity and contradiction
Cool	Warm
Generally light and bright	Generally dark and dim
Function and utility are primary values	Function and utility are not so important
Perfect materiality is an ideal	Perfect immateriality is an ideal
Everlasting	To every thing there is a season

Table 1: Comparing Modernism and Wabi-sabi. From: Koren, L. (1994) Wabi-Sabi: for Artists, Designers, Poets & Philosophers. USA: Stone Bridge Press. Pp 26-29



CONCEPT - JAPANESE ART AND AESTHETICS

KINTSUGI

OR JOINING

Art of fixing broken pottery with lacquer resin and powdered gold.



MA

GAP, NEGATIVE SPACE, PAUSE

“ma” in Japanese culture has developed into a much deeper spiritual concept. It has become an ideology in Japanese language and practice. It is the way of life of the Japanese.

“Ma” in Chinese culture emphasises the “boundary” and “separation” but in Japanese culture emphasises the “relation”. “Relation” in “ma” is an expression of interrelation of human relation. In Japanese culture, people believe that the gap between people needs to be filled up with some sort of physical object. This is where their gifting culture comes from.



MONO NO AWARE

PATHOS OF THINGS

It reminds us that everything in the world is impermanent and we need to value it.

KAWAII

CUTE (NEW AESTHETIC TERM)



KAWAISOU

PITYFUL



" "Relation" in "ma" is an expression of interrelation of human relation. In Japanese culture, people believe that the gap between people needs to be filled up with some sort of physical object. This is where their gifting culture comes from. Gifting is not only the exchange of objects but a symbol denoting the media of human relationship and interaction. Interaction should weigh more than the object itself. However, many people nowadays put their focus on the value of the object instead of the regards of the giver."



*The conclusion of this paper is multiple:
Design to help people to value ageing stuff using wabi-sabi and mono no aware. We need in some way to respect life of products. By combining these aesthetics we could help people to appreciate the beauty of ageing or that could grow with the users.
Design to build up and maintain relationship is also important.*



CONCEPT - BHOUTAN GNH



In Bhoutan the GDP is replaced by the Gross National Happiness.

Four pillars define the GNH:

- Good governance
- Sustainable economic development
- Environmental protection
- The preservation of culture

The four pillars of GNH are further classified into 9 domains with 33 indicators (124 variables).



CONCEPT - BHOUTAN GNH

WHAT IS GNH?

“Gross National Happiness (GNH) measures the quality of a country in more holistic way [than GNP] and believes that the beneficial development of human society takes place when material and spiritual development occurs side by side to complement and reinforce each other”

GNH Index uses two types of thresholds

Sufficiency Thresholds: Shows how much a person needs in order to enjoy ‘sufficiency’ – how much is enough, normally, to create a happiness condition. Each of the 33 GNH indicators has a sufficiency threshold.

Happiness Threshold: A person who enjoys sufficiency in more than six or more of the 9 domains is considered happy.



“Creativity needs the support of knowledge to be able to perform at its best. It is not the intention of this little book to stifle creativity or to reduce it to a bunch of rules. It is not the formula that prevents good design from happening but lack of knowledge of the complexity of the Design profession. It’s up to the brain to use the proper formula to achieve the desired result.”

Vignelli book introduction:



**Viewpoint:
The World Economic Forum's research on the mainstreaming of new technologies.**

2018	2021	2022	2023	2024	2025	2026	2027
Storage for all	Robotisation and services	The Internet of Things	Implant Technologies	Ubiquitous computing	3D printing and consumer products	Self-driving cars	Bitcoin and the block chain
		Wearable internet	Big data for decisions	3D printing and human health	AI and white-collar jobs	AI and decision-making	
		3D printing and manufacturing	Vision as the new interface	The connected home	The Sharing Economy	Smart cities	
			Governments and the block chain				
			A super-computer in your pocket				

World Economic Forum: Tipping Points, 2015

FUTUR TRENDS WORLD ECONOMIC FORUM

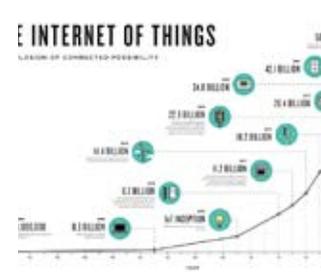
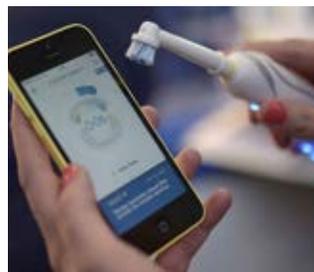
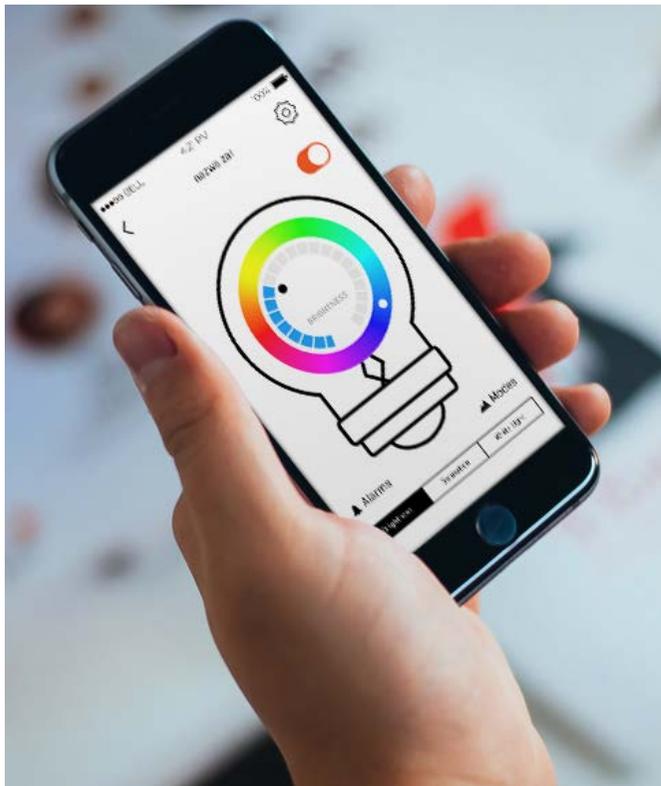
We can see on that image when the actual “new technologies” are going to be mainstream which is, to be clear, not about innovative trends.



CLOSE TRENDS

INTERNET OF THINGS

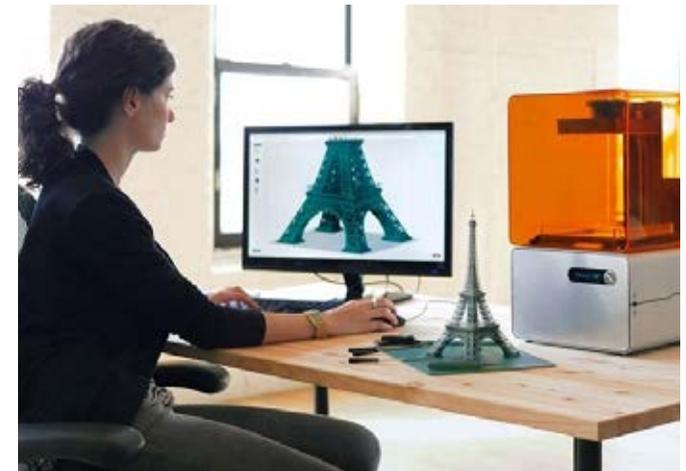
if we follow the idea that "Innovation should not be the present plus technology" (Luc de Brabandère) so the internet of things is not innovative but just a trend which will become a standard when the market will be full. As Greg Petroff (CXO at GE Digital) says "If we don't do it, someone else will". Companies don't try to innovate anymore but simply try to adapt our daily objects to a cloudy system where data can be collected and used for good or not. The idea of this project is to think beyond that.



CLOSE TRENDS

FUTURE OF DESIGNER

We remember the profession of photographer when the numeric arrived and when camera became much more affordable. At this period we saw a democratization of amateur photographer which overtook the qualitative aspect of photography into a quantitative world full of instagram-already-made filtered photos. It's not negative but that put a lot of pressure into the profession (Is it necessary to have a diploma "just" for some photos, how can you sell your work when a thousand people just uploaded a similar one on facebook). With the democratization of 3D printing and DIY machines which can evolves into a commercial way of selling not products but templates or 3D ready-to-print models we can imagine that Designers are going to suffer of the comparison and similar questions since the profession isn't well understood by people.

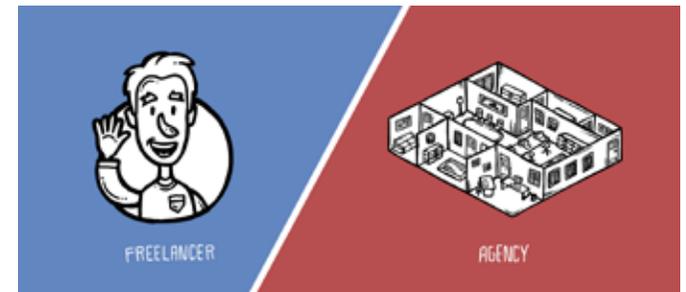
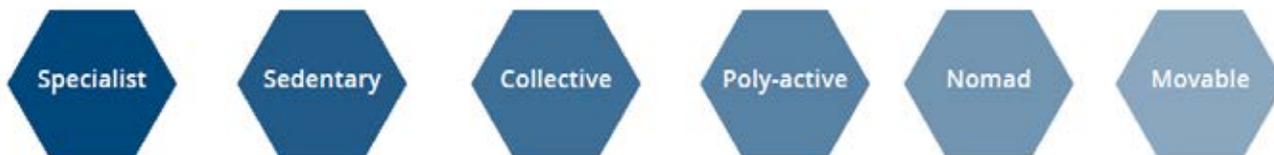
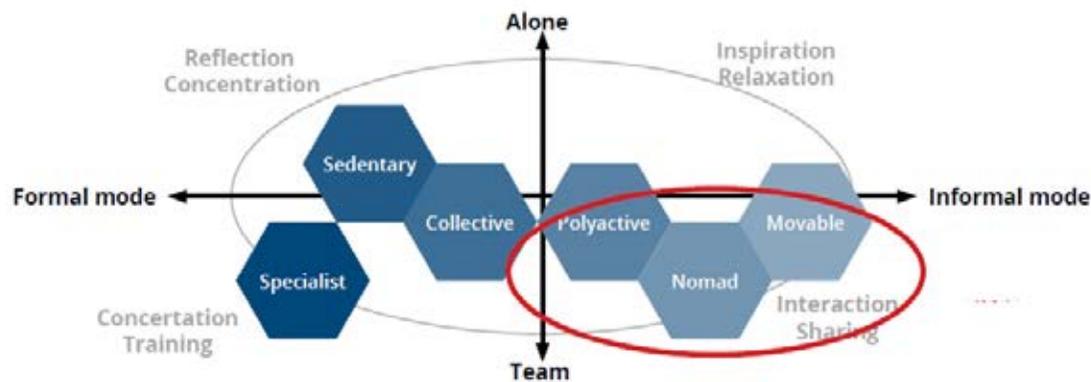


CLOSE TRENDS

MOBILITY AT WORK

The world of working space is actually changing and trying to evolve by using different actual trends. In one side we have freelancers: out of any company they prefer to manage themselves with all the advantages or disadvantages we can imagine, more than a trend they were 15.5 million self-employed people in the U.S. in 2015. That increased the number of coworking spaces and online platforms for working. In the other side we have the traditional workers who also evolves. Without speaking about these fascinating new cultures-companies from Google and co (hierarchy, extra activities, campus mind,..), we can also have a look on the more traditional B2B companies: some workers become nomad and don't own any offices at their name, always traveling they only use their phone, laptop and do teleconferences. We are also seeing some workers staying at home to do their jobs.

How can we do Design thinking workshop without anybody at work ?

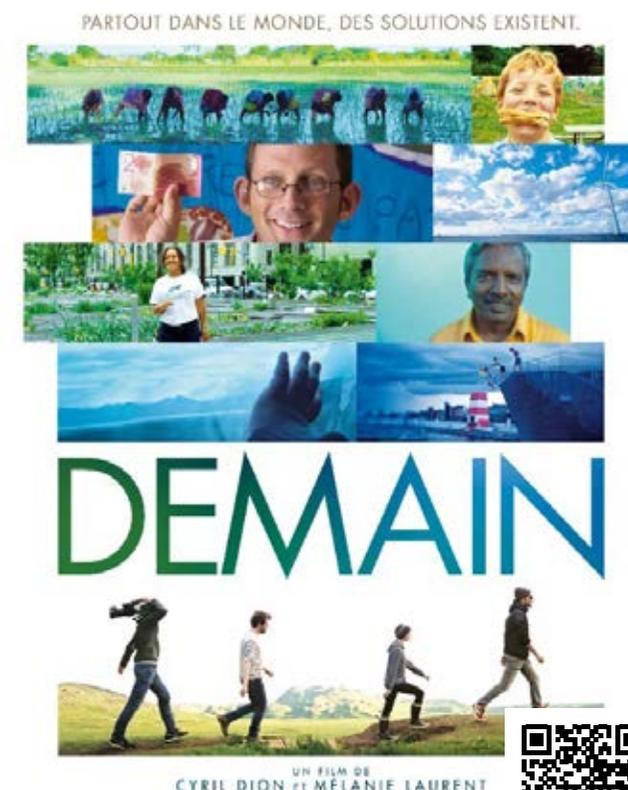


CLOSE TRENDS

THE SHIFT

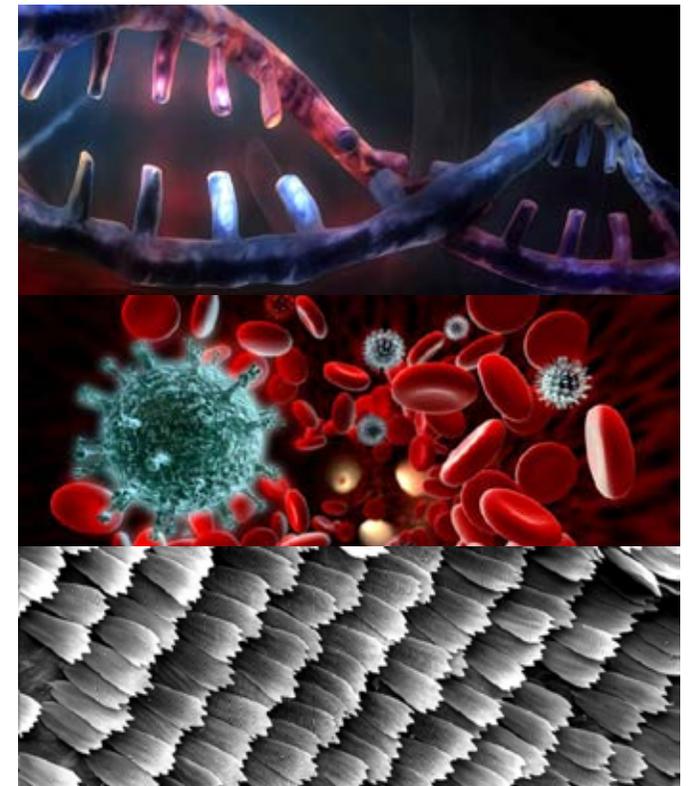
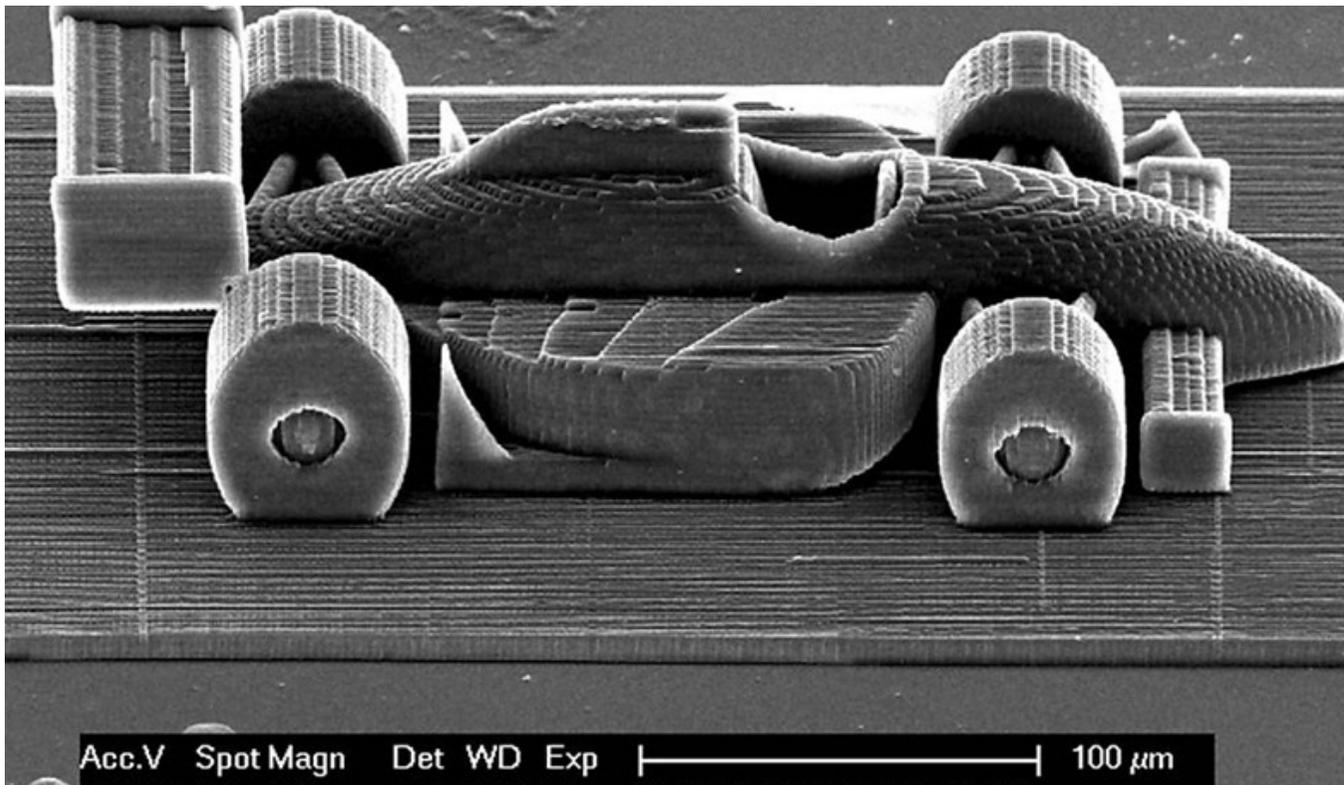
Since a long time back now people are looking/waiting for “The” shift. This shift is varying depending on people’s vision. The population is mostly waiting that for politics, banks, economy, ecology, big corporations (capitalism). I would say that actual conflicts in Middle East are giving some free time to them and these groups are fine with this state of fear which crystallize people mind.

Hopefully, we actually observes some new trends which could be compared as shift, but these ones are probably not going to happen in a day like in the movie “Fight Club” but more probably in a slow and motivated walk from people, one after one: little local communities and single people idea followed by people ready to create changes... like the sharing economy which grows fast or the movie “Tomorrow” and all the ideas presented in that documentary... these people are doing well.



CLOSE TRENDS NANOTECHNOLOGY

All these new visions of sciences are really interesting in the way that if we try to do like nature to build our lives, nature is actually working at the nano scale which means we are going to understand how nature is really working on the daily basis. If researches improve a lot we will probably be able to do like nature (DNA=information=hard drive,...). It will also permits to understand the human body with all health issues, or to get some new features and innovation by observing nature.



TRANSMIT DESIGN VALUES

WHY ? AN EXPERIENCE

Values are difficult to transmit, we all have a different set of defined values and it would be difficult to force people to use “my” values. I realized that “Values of Design” are probably “Human values” which means that, for my belief, some companies don't have these human values (ex: using "consumer" instead of "user" or "customer"), somehow that means I want companies to be more ethical.

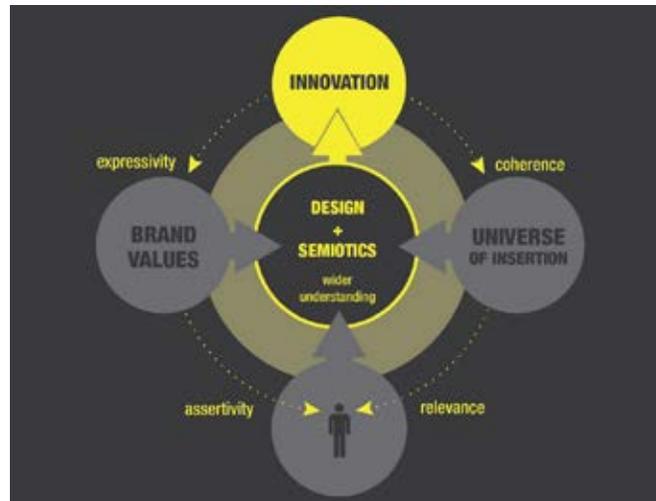
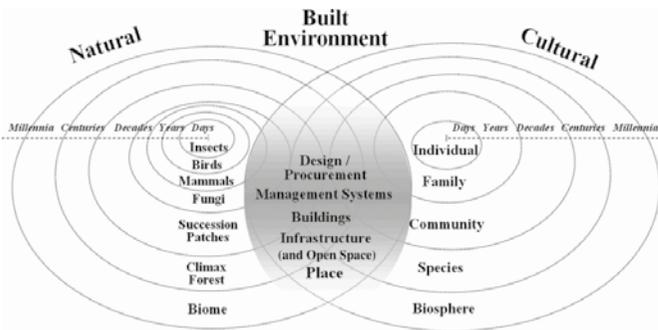
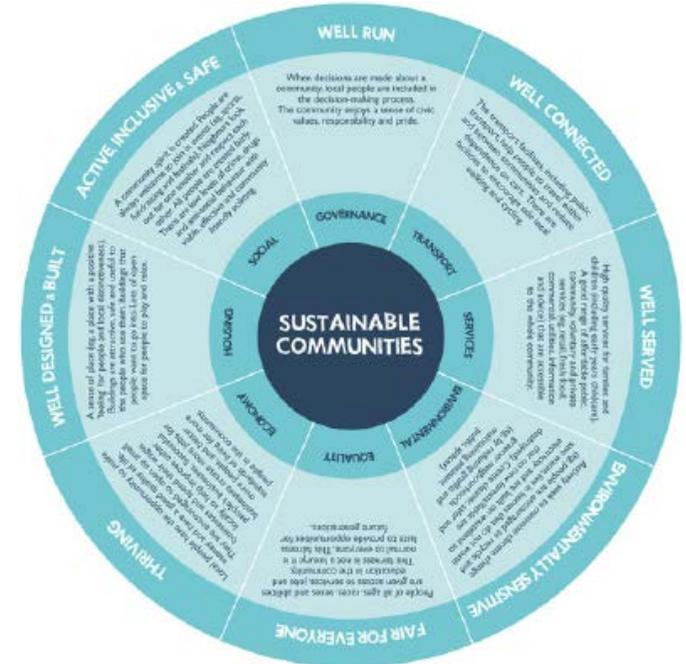
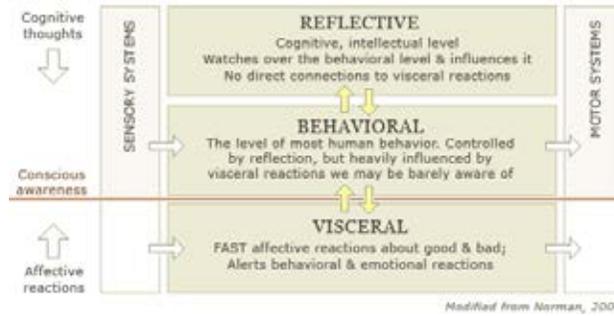
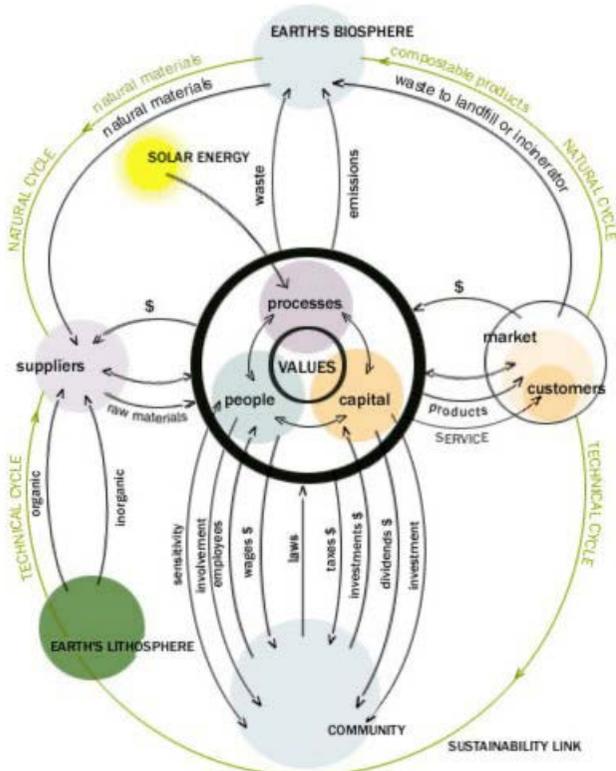
But I am still thinking if I want a better wellbeing of users or if I want more ethical values on companies, which challenge is the most pertinent and able to work.

- If I work for companies I have to think about methodologies implementing good values and wellbeing of workers (culture mindset).

- If I want to work for users I need to think about the most efficient way to teach/assist them.

- If I want to work for education's system I need to think about the most efficient way to connect with them.

KEEP IN MIND - SOME DIAGRAMS

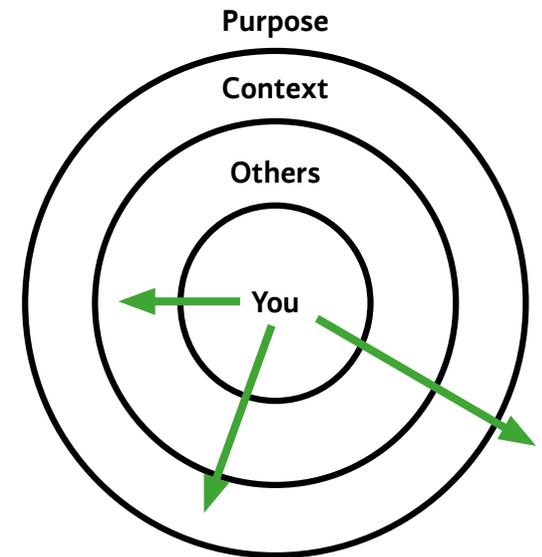


KEEP IN MIND - VERNON COLLIS COURSE

On the system part we can find what makes our world. The main idea visualized by the green arrow is to move from fossil uses to living uses, to move from oil, gas to trees and other living systems. The goal is to say that fossil takes billions year to regenerate where living system takes just some years so we should mostly use them.

The two others diagram speak about the connection with human, everything in our world is about connection and as person we should try to connect with people to bring a more positive attitude and provide hope to people. "Don't let others energy let you down" "Be contagious of your positive energy to be part of a new change".

By being aware of the system it permits to create connectivity with people and to wear new lenses.



System				People	
Nature		Man-made			
Organic	Inorganic	Physical	Institutional		
Living	Fossil	Geological			
Plants Animal Human Bacteria ...	Oil Coal Gas	Water Climate Soil Sismic Montain Wind Weather Solar	Buildings Products Roads Clothes Computers Food Medecine	Religious Legal olitical Healthcare Education Cultural	

Energy		Curiosity		Purpose	
+	Inspire	Hope			
-	Fear				

KEEP IN MIND - NOTIONS

Systemic Design
Immortal brands
Long near future
regenerative design
Espitemology of design
resilience design
Holistic vision
...

That was the first long part of my research.



