THINK!
DESIGN

D'source Project

Open Design School

MoE's Innovation Cell

Prototyping Part 2:
MVP
Proof of Concept (PoC)
Info Architecture
Experience Design

Design Thinking & Innovation Tools

Section: T12, Week 12

Design Thinking & Innovation (DT&I)

Section: T12

Week 12

Design Thinking & Innovation (DT&I)

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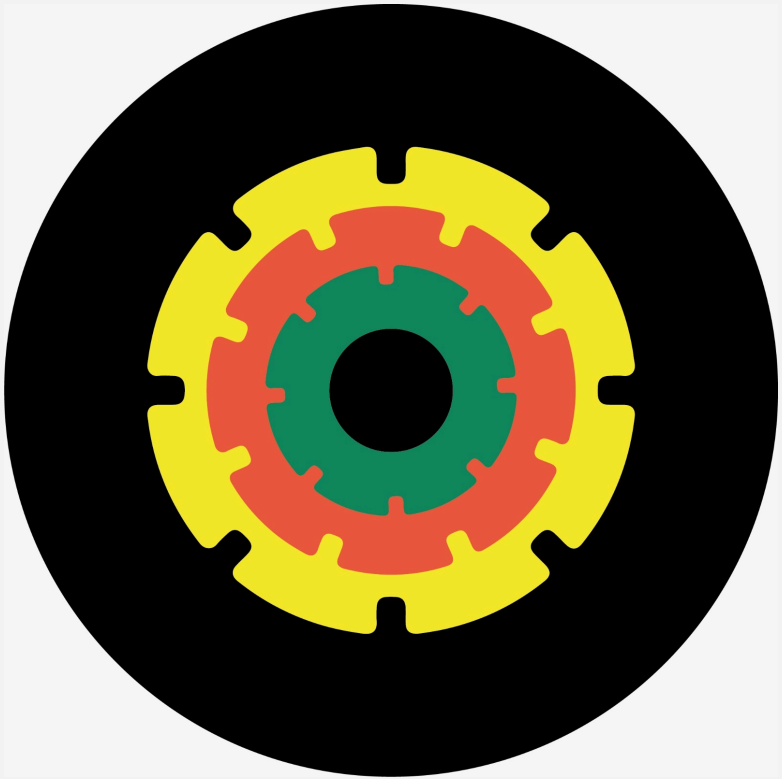
IDC School of Design, IIT Bombay



DT&I Tools

T12 Module T12:

MVP

Proof of Concept (PoC)

Info Architecture

Experience Design

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T12.1

Minimum Viable Product (MVP)

How to use MVP for Ideation?

Minimum Viable Products (MVP) as the name suggests have just enough features or functionality in order to get feedback from its users.

MVP is a simple version of prototyping a concept and helps one to quickly visualize, test, get feedback and change/iterate in order to make the next iteration.

MVP can be seen as **part of the lean startup process** and **saves time, efforts and costs.**

MVP – getting feedback from children:

Shown here is an example of MVP made of foam with detachable units
- a tangible simple version to get feedback.

The MVP has just sufficient details to get feedback from children.

Oh we can scribble on it!

I can detach this marble and give it to my friend!!

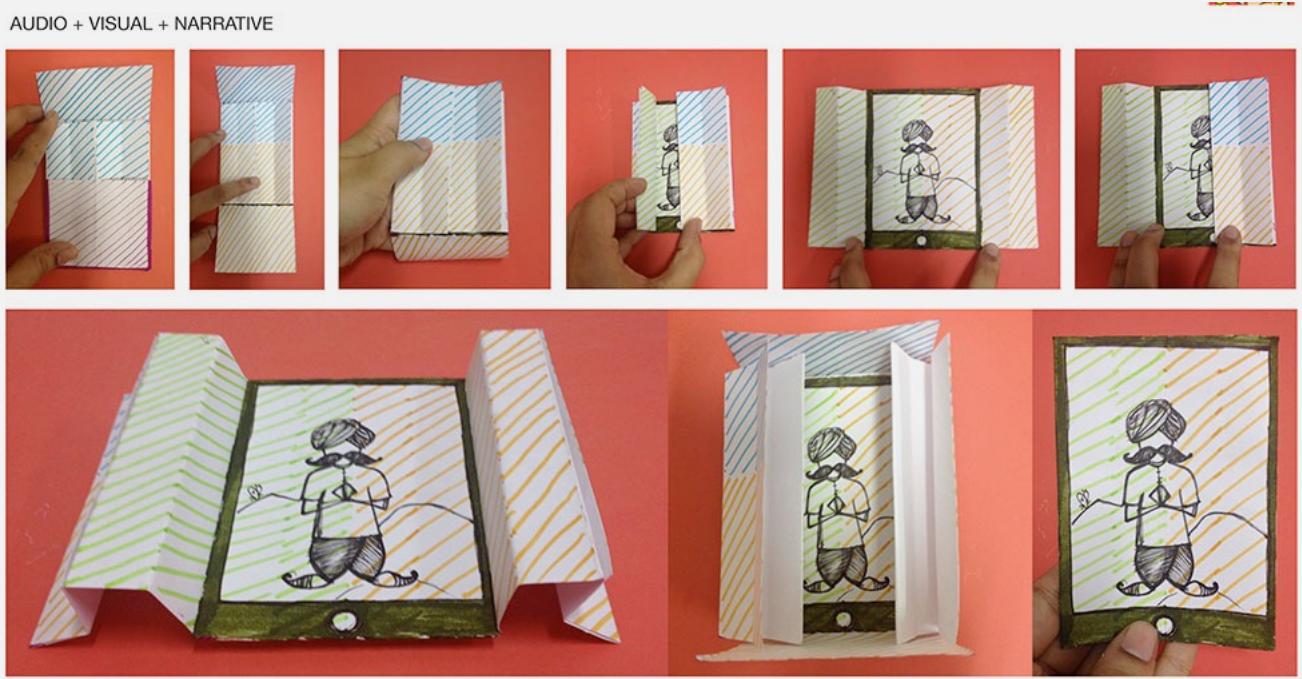
We want it!!

Can I change the way it looks?

MVP – Prototype for an exhibition:

Shown here is an example of MVP made of Cardboard paper - a tangible simple version of an unit of the exhibition to get feedback.

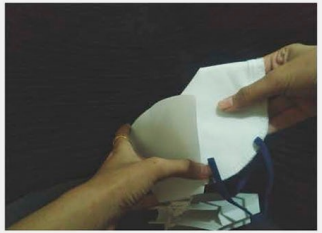
The MVP has just enough details to get feedback from users.



MVP – Prototype for an Packaging:

Shown here is an example of MVP made of Cardboard paper - a tangible simple version of a packaging for medicine to be carried on self.

The MVP has just enough details to get feedback from users.



Minimum Viable Product:

Steps in MVP: a simple prototyping technique

1. Select the concept/idea that you want to prototype
(Make sure to write down the most important aspects of your concept)

2. Decide a way to prototype this using simple methods and materials
(you could use Foam, Cardboard, Plaster, Soft wood for 3D products.
Cardboard, printouts, cutouts for 2D products.
Wireframes/Low-fidelity prototypes on Paper, Figma for Digital Prototypes and Ardino, sensors for Interactive prototypes)

3. Make the prototype
(such that it has just enough features or functionality)

4. Get Feedback from Users
(Let the users use the MVP and get feedback from them)

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T12.2

Proof of Concept (PoC)

Proof of Concept:

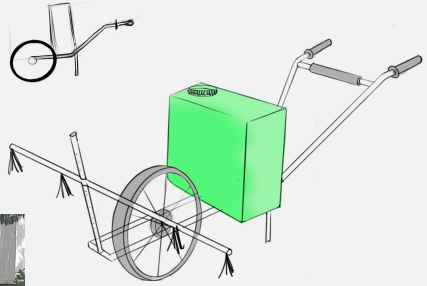
Proof of Concepts (PoC) is to demonstrate the **feasibility of the core concept** in order to get feedback from its users.

PoC is great for **testing the functional, technical, material** aspects of the concept in turn saving time, efforts and costs.

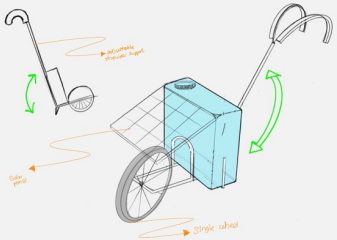
PoC is very helpful in making sure that a new idea being used in the concept is **tried before being adopted** as part of the final design.

PoC much like MVP helps one **to quickly visualize, test, get feedback and change/iterate** in order to make the next iteration.

PoC – used for testing the redesign of Pesticide Sprayer:



Shown here is another example of PoC mock-up of one of the concepts
- a tangible minimum version to test, get feedback and iterate.



Proof of Concept (PoC):

Steps in PoC: a demonstratable prototyping technique

1. Select the concept/idea that you want to prototype
(Make sure to write down the most unique aspects of your concept - it could be functional, technical or material aspects)

2. Decide a way to prototype this using available methods and materials
(you could use metal, wood for 3D products.
Cardboard, printouts, cutouts for 2D products.
Figma for prototyping Digital interfaces and
Ardino, sensors for Interactive prototypes)

3. Make the prototype
(such that it has just enough features or functionality)

4. Get Feedback from Users
(Let the users use/test the PoC and get feedback from them)

T12.3

Information Architecture (IA):

Information Architecture:

When **Communication of Information is of importance** to design, then **Information Architecture is very helpful**.

Information Architecture refers to the **organization of information** in a manner that it makes **locating and navigating through information easy and understandable.**

Inf**ormation Architecture** is useful in **design of websites/digital environments, control panels, wayfinding systems for public places and roads, layout of a museum/library and markets, catalogues and directories**.

IA in different domains:

Digital Interfaces:
- Navigation,
- Icons,
- Menu,
- Buttons & Hyperlinks

Control Panels:
- Buttons/Switches,
- Sliders,
- Rotary knobs
- Interface Displays

Wayfinding Roads
- Signages,
- Symbols + Text,
- Arrows,
- Colour

Museum Layouts:
- Layouts,
- Navigation,
- Signage Directory,
- Arrows

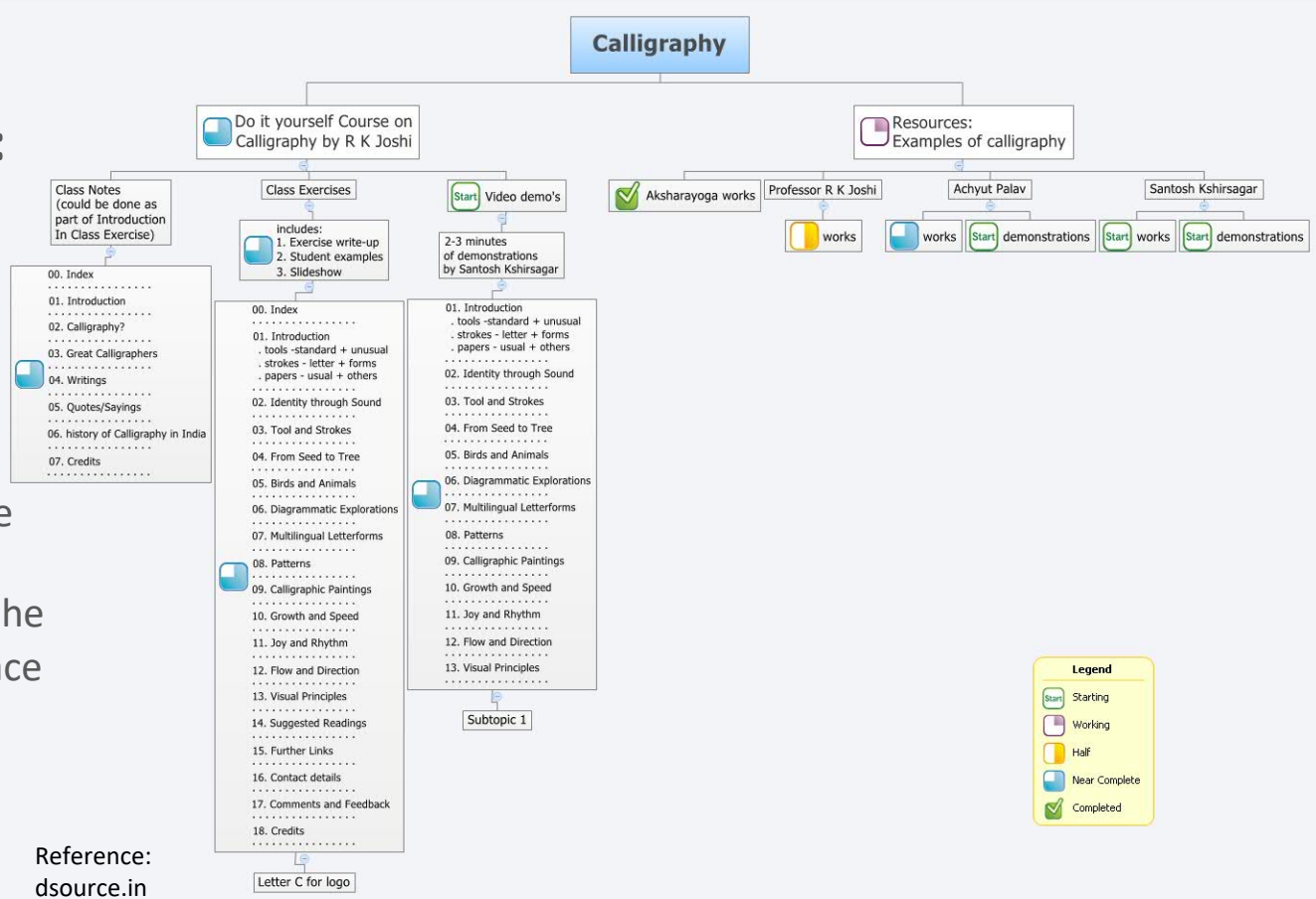
Store Layout:
- Directions,
- Signage
- Sections
- Facilities

Public Places:
- Facility listing,
- Signages,
- Directions
- Navigation

Directories:
- Index,
- Content Listing
- Page Numbers
- Use of Icons

Library Layouts:
- Layouts,
- Index/Catalogue
- Navigation,
- Indexed Shelves,
- Arrows for Direction

Example of Information Architecture:

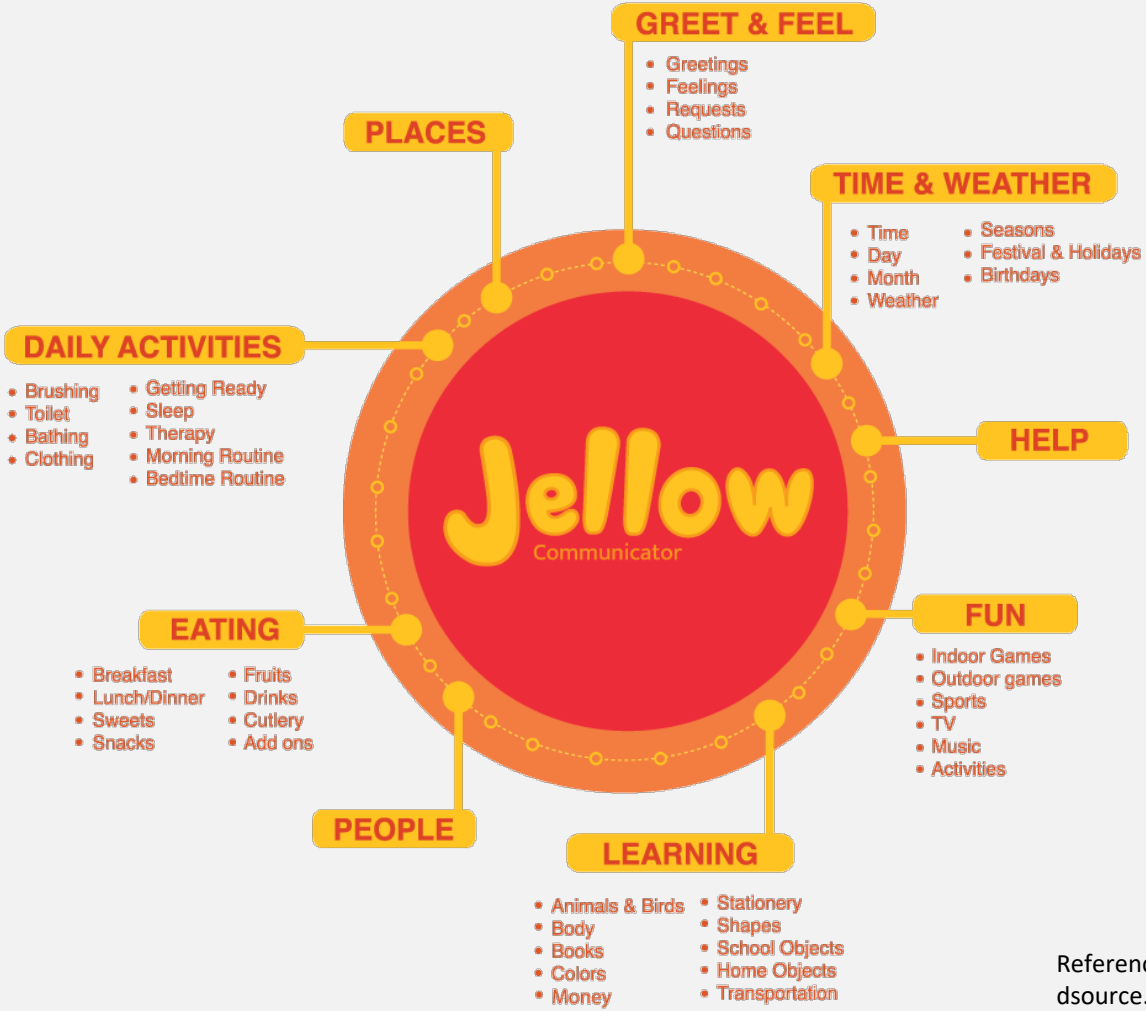


Shown here is the Information Architecture for the design of webspace for 'Learning of Calligraphy'

Reference: dsource.in

Example of Information Architecture:

Shown here is the Information Architecture for the Jellow Interface – a communication device for children who have difficulty with speech



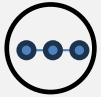
Reference: dsource.in

Information Architecture (IA):

Steps in IA: Organization of Information

1. Categorize the information into different groups based on similarity
(You can make use of Card Sorting to give heading to each of the categories)

2. Decide the direction of Information Flow – this will decide the Navigation
(ideate on the most logical way to go from one information to another – this will become the direction or path of the information)



3. For wayfinding, its best to do a walkthrough and decide the decision making points
(The decision making points would be the places where information needs to be displayed)

4. Make a rough Prototype and get feedback
(Let the users use/test the rough prototype and get feedback from them)

T12.4

Experience Design (XD):

What is Experience Design?

Experience Design is the design of Products (both Physical and Digital), Services or Systems to facilitate (A) easy understanding, (B) satisfying engagement and (C) good experiences.

A. Easy Understanding:
> easy to locate, comprehend, navigate and use.

B. Satisfying Engagement:
> feels good to interact,
> Is functional, works well

C. Good Emotional Experiences:
> feels comfortable,
> memorable involvement

Examples of better Experience Design

1. **A ceiling fan** that recognizes the presence, sets its speed according to ambient temperature, makes no noise and switches off when the person leaves the room.

2. **A grinder/mixer** that grinds silently, can mix in a range of fine to rough grinding and gives a signal when the grinding is done.

3. **An email application** that can reveal the mood of the message, shows the importance/urgency of the message and can identify if the message is from friends, colleagues and strangers. It would make use of space, size, colour, icons, etc. to visualize and organize the emails appropriately.

Scenarios of Experience Design:

Lets say that you wanted to go to a bank to apply on students loan to buy a laptop. Presented here are two scenarios:

Scenario One:

1. Locate the Bank and find out its operating timings
2. Go to the Bank
3. Ask the security, where the loan section is
4. Go stand in the Queue
5. You are given a form to fill and a list of signed documents to be produced
6. Repeat the same procedure after getting the documents.
7. If all documents are fine, loan is sanctioned after 15 days

Scenario Two:

1. Locate the Bank online and search for loan facility
2. Fill an online form and submit documents
3. Take an appointment for physical verification at the bank
5. Go to the bank at the appointed time, Documents are verified and the loan is sanctioned immediately.

(in addition, the bank is not crowded, no queues with comfortable seating + drinking water/tea on the house)

Great Emotional Valued Experiences . . .

1. In a place of worship:

Touch – touch the ground with barefoot, Textures
Smell – of incense
Taste – of prasad, sweets
Hearing – sound of bells, chants, service
Seeing – Colours, Lights, etc

2. In a Restaurant:

Touch – you touch the food, dress-up
smell – of food
Taste – of food
Hearing – conversations, social, celebrations
Seeing – Colours, Lights, etc

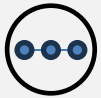
3. Celebrating Festivals:

Touch – you touch, dress-up
Smell – of incense
Taste – of sweets, food
Hearing – bells, chants
Seeing – Colours, Lights

Sensories play a significant part in the design of Experiences.

Experience Design (XD):

Steps in XD: Experience Design



1. Do a step by step walkthrough of all the sensory interactions with the product/service

2. While doing the step by step walkthrough note down all the decision making points
(The decision making points wood be the places where the interaction needs to be easy and intuitive)

3. Decide how many of the senses will be involved in interacting with the concept
(What sense are the best suited ones for the interaction that is needed)

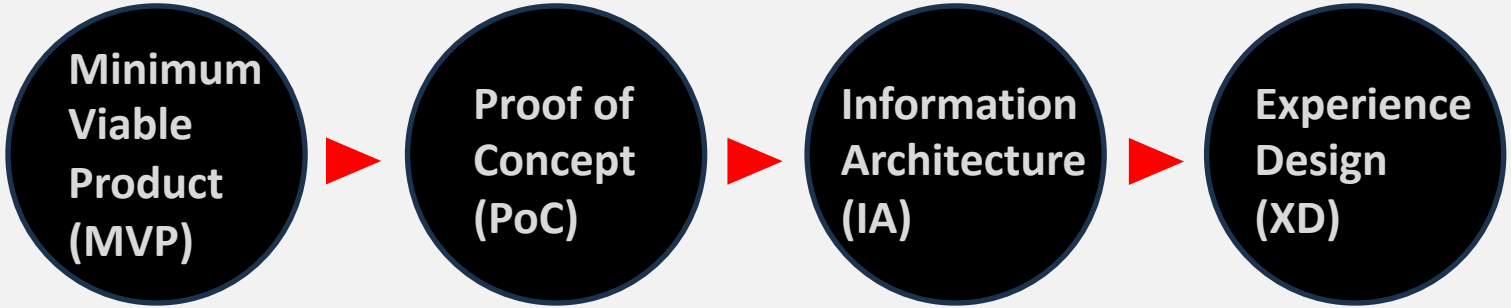
4. Make a rough Prototype and get feedback
(Let the users use/test the rough prototype and get feedback from them)

T12.5

Prototyping Tools for Part 2:

Prototype part 2:

(MVP > PoC > IA > XD)



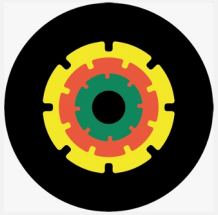
Thanks for Listening

DT&I Tools
Section: T12
Week 12

DT&I Course – Week 12:

DT&I Process
(20%)

> MVP
> Proof of Concept (PoC)
> Info Architecture
> Experience Design



DT&I Tools
(20%)

> MVP
> Proof of Concept (PoC)
> Info Architecture
> Experience Design

DT&I Project
(50%)

> Apply MVP,
> Proof of Concept (PoC)
> Info Architecture
> Experience Design

DT&I Cast Study
(10%)

> Case Study Project:
Storage Design to reduce Post-harvest loss of Vegetables

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Supporting Organizations:

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