THINK! DESIGN

D'source Project

Open Design School

MoE's Innovation Cell

Secondary Research Part 1

Design Thinking & Innovation Process

Section: A3, Week 3

THINK! DESIGN

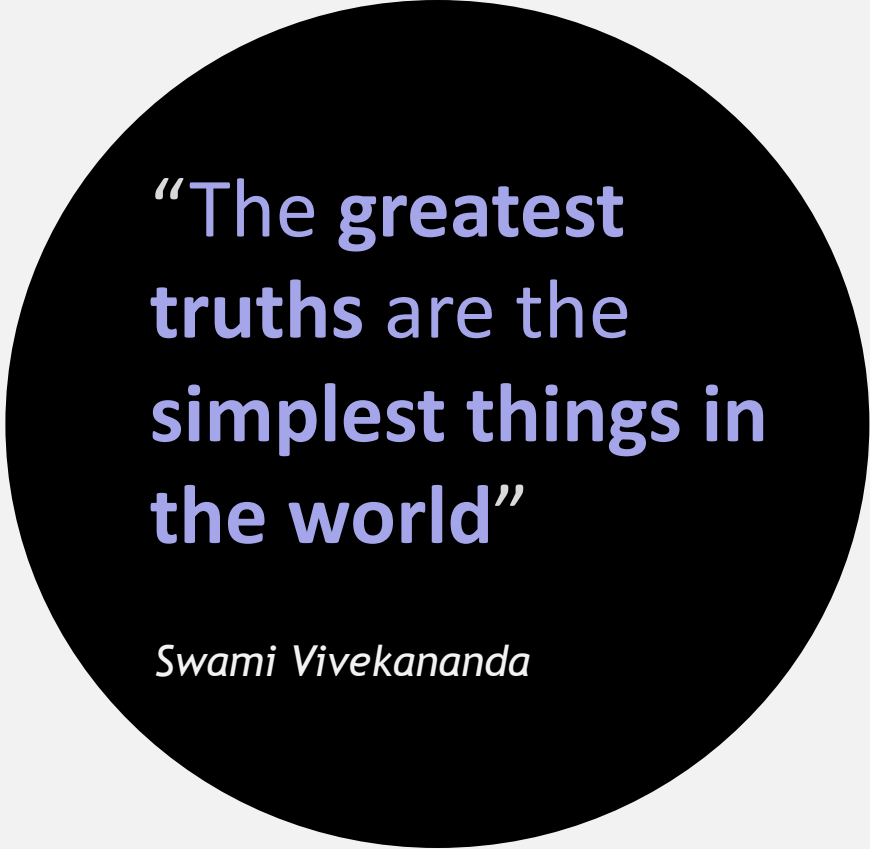# Design Thinking & Innovation (DT&I)

Section: A3

Week 3

THINK! DESIGN

Design Thinking & Innovation (DT&I)

Prof. Ravi Poovaiah
IDC School of Design, IIT Bombay

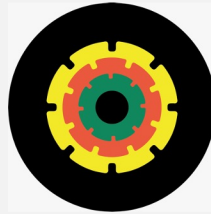"The **greatest truths** are the **simplest things in the world**"

Swami Vivekananda
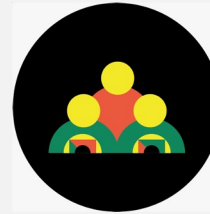
DT&I Course – Week 3:

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DT&I Process
(20%)

> Secondary Research
> Info Gathering
> Referencing

DT&I Tools
(20%)

> 5W + 1H Answers
> 5W + 1H Matrix
  Table

DT&I Project
(50%)

> Secondary Research
> 5W + 1H

DT&I Case Study
(10%)

> Case Study
Project 'Teaching
Culture Through
Storytelling'

DT&I Process

A3   **Secondary Research** – Part 1

Module A3:

Secondary Research – Part 1:

Content

A3.1

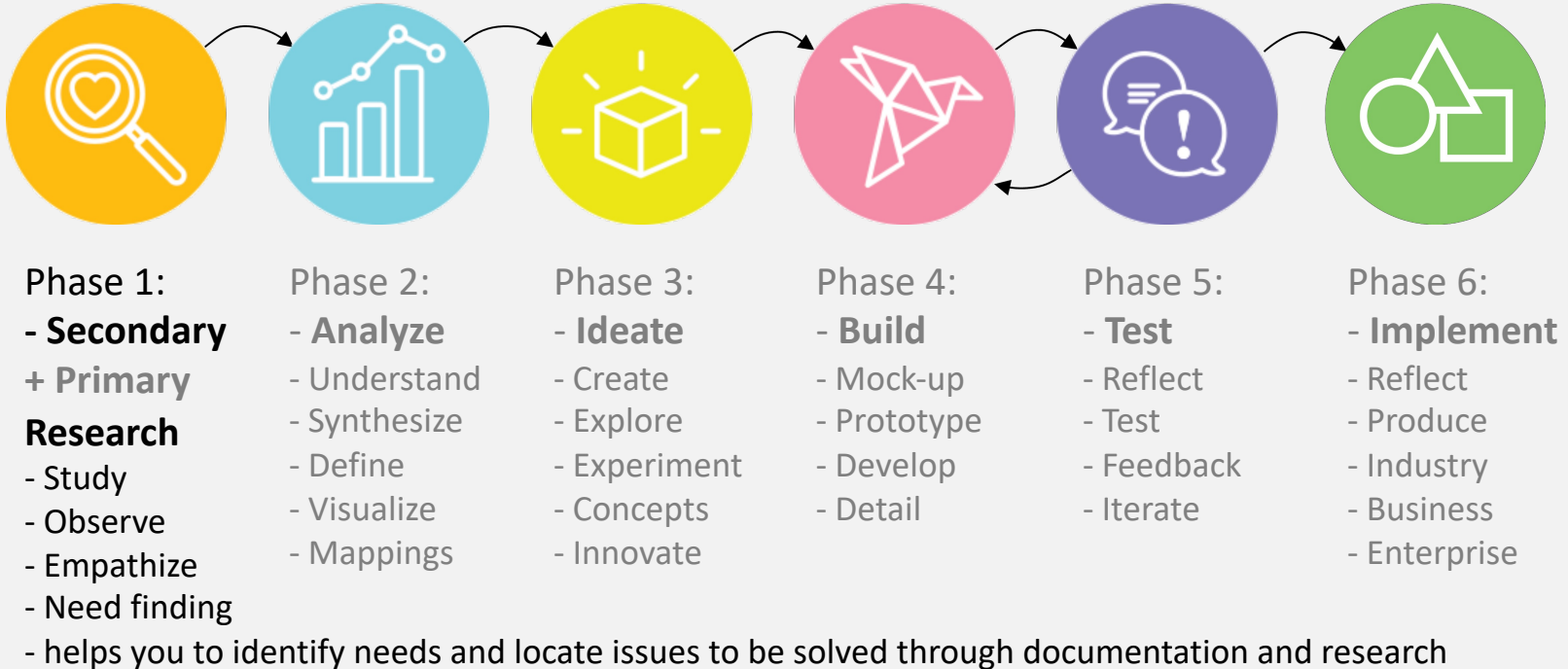# DT&I Process and Secondary Research

DT&I Process and Secondary Research

Secondary Research is the first phase of the DT&I process.

Phase 1:
- Secondary + Primary Research
- Study
- Observe
- Empathize
- Need finding

Phase 2:
- Analyze
- Understand
- Synthesize
- Define
- Visualize
- Mappings

Phase 3:
- Ideate
- Create
- Explore
- Experiment
- Concepts
- Innovate

Phase 4:
- Build
- Mock-up
- Prototype
- Develop
- Detail

Phase 5:
- Test
- Reflect
- Test
- Feedback
- Iterate

Phase 6:
- Implement
- Reflect
- Produce
- Industry
- Business
- Enterprise

- helps you to identify needs and locate issues to be solved through documentation and research

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THINK!
DESIGN

A3.2

What is 'Secondary Research'?

What is 'Secondary Research'?

.   **Searching through past and existing information or data** (also known as literature search)

.   Do note that someone else has taken efforts to collected this information/data. Hence, it needs to be acknowledged.

.   Secondary Research is based on Secondhand information/data whereas Primary Research is based on Firsthand information/data

.   The information/data could be either qualitative or quantitative in nature

Why do we begin by 'Secondary Research'?

. We start with Secondary Research on order to **find out what information about the topic (problem area) does not exist** so that we can make use of Primary Research to fill-in this information.

. **Secondary Research gives an idea of existing information or knowledge** about the topic that we are trying to solve. Once we know this, and **find gaps in this information** that could be useful to understand the domain of the problem, then Primary Research based on **firsthand information/data becomes useful and necessary.**

. **Secondary Research   >   Primary Research**

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A3.3

Sources of Secondary Research

A3.3-012

Sources of Secondary Research:

.   Publications: Literature, Books, Journals, Reports, Articles

.   Case studies, Projects, White Papers, Newspapers

.   Events: Conference Papers, Workshops, Symposiums

.   Information gathered from the Internet, Web resources:
.   - Websites, Blogs, Web Magazines, Web Journals, etc.

.   Data Sets, Survey Results, Census Data, Records and Standards

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A3.4

Documenting Secondary Research

A3.4-014

Documenting Secondary Research:

. Information gathered should be **categorized**, **titled** and **organized** - indexed in folders and subfolders

. Information gathered from books and other publications both online and offline should be noted as **keywords**, with **titles** and by writing **summaries** (should be careful not to plagiarize)

. **Keep note of all the references**, even references for images, charts, drawings, any content downloaded from the internet, etc.

What is Plagiarism?

. Plagiarism Definition:

"the practice of copying another person's ideas, words or work and pretending that they are your own, without consent of the original author"

. All existing information/data is due to the efforts of someone else Hence, this needs to be acknowledged. We do this by giving full references. (more about this in the section on 'how to reference')

. Plagiarism is unethical.

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A3.5

How to do Secondary Research?

How to do Secondary Research?

These are the steps involved in Secondary Research:

1   First, **Identify your Problem Area/Topic** for the DT&I project

2   **Identify sources of secondary research** relevant to your topic

3   **Collect relevant information/data**

4   **Document the information/data** in appropriate categories
         in folders (using sharable drives, Miro/Figma Board, etc. are helpful)

5   Make sure to **note down full references**

How to do Referencing?

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-        There are several referencing formats

-        MLA (Modern Languages Association) system,
         the APA (American Psychological Association) system,
         the MHRA (Modern Humanities Research Association) system
         the Harvard system

-        we'll have a look at the Harvard system of referencing/citing

How to do Referencing . . .

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- In the Harvard system, references are be cited in the text or below the image within brackets **(e.g. (author, year), (author, year))** or numbered in brackets and listed at the end of the paper/report/presentation in the order in which they appear in the text. i.e., **(Bharucha, R., 2003)**

- References are listed in the following format as shown here:

  References: book

  Bharucha, R. (2003) Rajasthan an Oral History. Penguin Books, India.

- **References: Downloaded PDF**

  Bruner II, G. C. and Kumar, A. (2007) Attitude toward Location-Based Advertising [Online PDF]. Available at <http://www.jiad.org/vol7/no2/bruner/Attitude%20toward%20 locationbased%20advertising.pdf> [Accessed 18 April 2024]

A3.7

How to Acknowledge?

How to Acknowledge?

- During the research phase, there are **many who help and support you.** It is **important to acknowledge their assistance.**

- For example:
  - Faculty members and mentors
  - Librarian or an expert in your topic
  - Institutions and Organisation that helped you with research

- First Name, Last Name,

  Name of Institution/organization,

  email address (optional)

  (B. Ramesh Kumar, Indian Institute of Technology Bombay, India, ramesh_b@iitb.ac.in)

How to give Credits?

This is the usual format of giving credits to the authors/designers

- Your Paper/Report/Project Title
  Subtitle: If applicable.

- First Author First Name, Last Name,
  Name of Institution/organization,
  email address (optional)
  (R. S. Nanda, Indian Institute of Technology Bombay, India, nanda_rs@iitb.ac.in)

- Second Author First Name, Last Name,
  Name of Institution/organization,
  email address (optional),
  (John Abraham, Domus Academy, Milan, Italy, john_abraham@gmail.com)

Further Study and References

Further Study and References:

-      www.dsource.in
  DT&I, Case Studies, Courses, Tools, and Resources
  https://dsource.in/dti
  https://dsource.in/case-study
  https://dsource.in/course
  https://dsource.in/tools
  https://dsource.in/resource

-      Research Design: Qualitative, Quantitative, and Mixed Methods Approaches
  by John W. Creswell and J. David Creswell, Sage Publications, edition 2022

-      Design Research: Methods and Perspectives (The MIT Press)
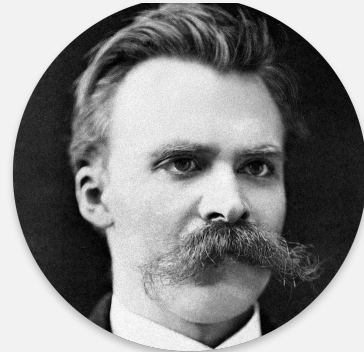 by Brenda Laurel and Peter Lunenfeld, MIT Press, 2003

Design Quote:

"He who has a why to live can bear almost any how "

Friedrich Nietzsche ,

German-Philosopher

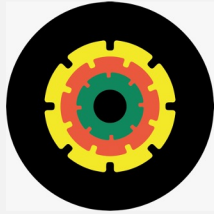A3.8-027

Thanks for Listening

DT&I Project
Section: A3
Week 3

DT&I Course – Week 3:

THINK! DESIGN

DT&I
Process
(20%)

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> Info Gathering
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(20%)

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(50%)

> Secondary Research
> 5W + 1H

DT&I
Case Study
(10%)

> Case Study
Project 'Teaching
Culture Through
Storytelling'

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Supporting Organizations:

D'source

D'source Project

Open Design School

MoE's Innovation Cell

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Credits:

Presented by:
Prof. Ravi Poovaiah

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Credits:

Think Design Animation:
Rajiv Sarkar

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Credits:

Graphic Icons:
Shweta Pathare

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Credits:

End Title Music:
C P Narayan

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