

Shaping the Experience

EVALUATION METHODOLOGY

706.712 - Winter 16/17

eduardo Veas
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Z



WHAT IS EVALUATION?

WHY DO WE EVALUATE?

WHY DO WE EVALUATE?

Your answers here:



WIKIPEDIA

WHAT IS EVALUATION - ?

the process of judging something or someone based on a set of standards.

systematic determination of a subject's merit worth and significance using criteria governed by a set of standards.

EVALUATION

determine a subject's merit
worth and significance

METHODOLOGY

using criteria based on a set of
standards



SUBJECT

- piece of software ?

- hardware + software?

- computerized system?



...A SUBJECT'S MERIT...

amazon.de

Prime

Alle

Kategorien

Eduardos Amazon

Angebote

Gutscheine

Verkaufen

Hilfe

Alle

user experience

Suche

DE

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Mein Prime

Meine Listen

Einkaufswagen

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Neuheiten

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Englische Bücher

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Alle Fremdsprachen

Measuring the User Experience: Collecting, Analyzing, and... und über 4,5 Millionen weitere Bücher verfügbar für Amazon Kindle. Erfahren Sie mehr

Zurück zu den Suchergebnissen für "user experience"

Blick ins Buch

Second Edition

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Measuring the User Experience

Collecting, Analyzing, and Presenting Usability Metrics

Alle Formate und Ausgaben anzeigen

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Taschenbuch

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Prime

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Lieferung Dienstag, 25. Okt.: Bestellen Sie innerhalb 19 Stunden und 52 Minuten per 1-Tages-Zustellung an der Kasse. Siehe Details.

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Measuring the User Experience was the first book that focused on how to quantify the user experience. Now in the second edition, the authors include new material on how recent technologies have made it easier and more effective to collect a broader range of data about the user experience. As more UX and web professionals need to justify their design decisions with solid, reliable data, Measuring the User Experience provides the quantitative analysis training that these professionals need. The second edition presents new metrics such as emotional engagement, personas, keystroke analysis, and net promoter

Mehr lesen

Alle 2 Bilder anzeigen

Wird oft zusammen gekauft

Measuring the User Experience

Observing the User Experience: A Practitioner's Guide to User Research

Lean UX

Gesamtpreis: EUR 100,55

Alle drei in den Einkaufswagen

Einer der beiden Artikel ist schneller versandfertig. Details anzeigen

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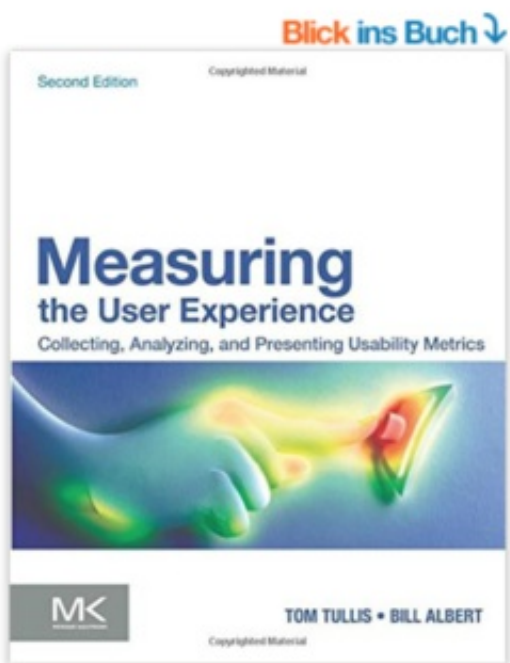
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von [Bill Albert](#) (Autor), [Tom Tullis](#) (Mitwirkende)

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...A SUBJECT'S MERIT...

The screenshot shows the Amazon.de product page for the book "Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics (Interactive Technologies)" by Bill Albert and Tom Tullis. The page is in German and displays the book's cover, title, authors, ratings, and purchase options. The book is available in Kindle Edition (EUR 31,79) and Taschenbuch (EUR 41,68). The page also includes a description of the book and a link to "Mehr lesen".

amazon.de Prime Alle user experience

Alle Kategorien Eduardo Amazon Angebote Gutscheine Verkaufen Hilfe

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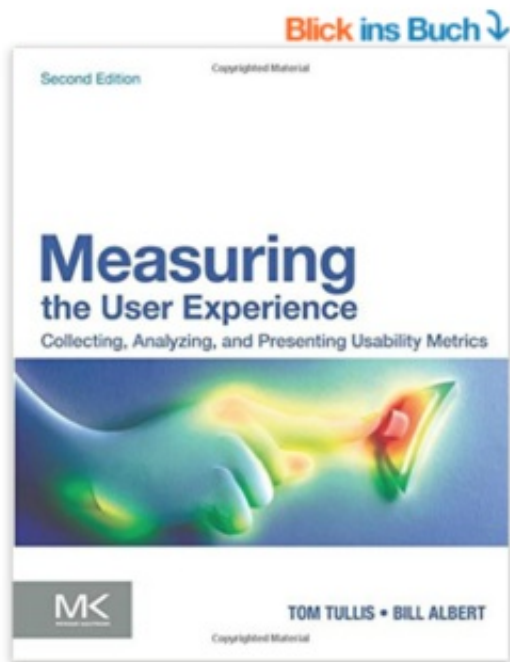
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Mehr lesen

Alle 2 Bilder anzeigen

- Information retrieval
- Database
- Item indexing



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...A SUBJECT'S MERIT...

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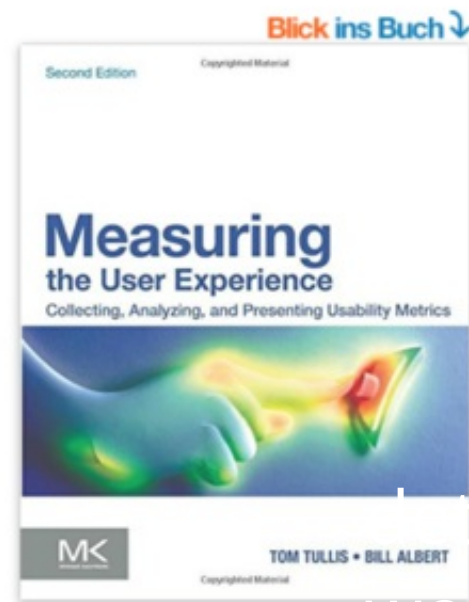
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- Recommender system
- Item based collaborative filtering
- Item x item matrix



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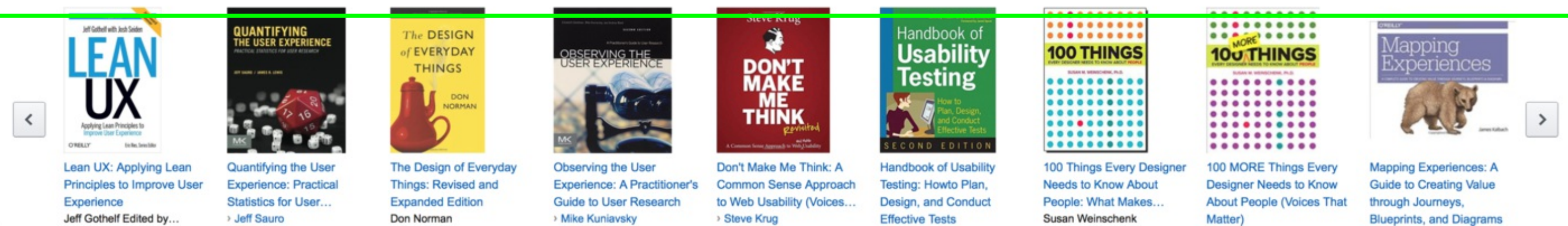
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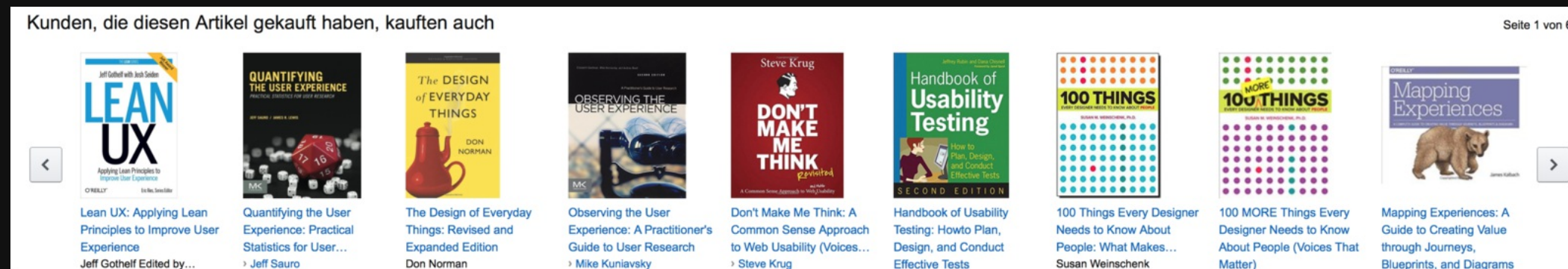
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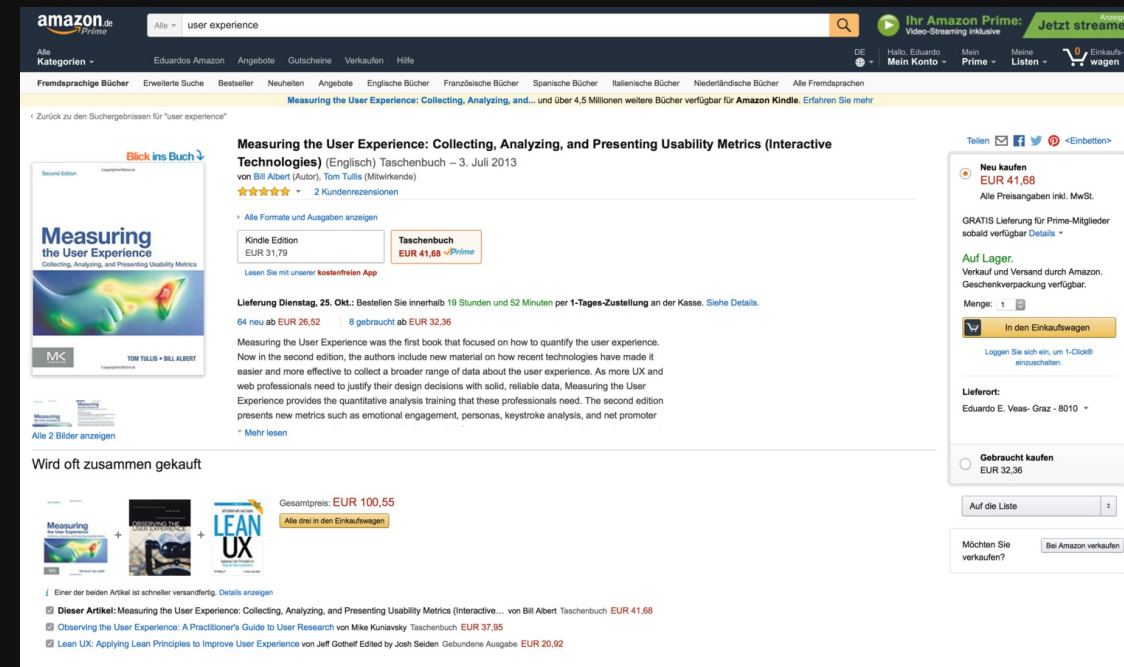


- Recommender system
- User based collaborative filtering
- user x user matrix
- social recommender

... A SUBJECT'S MERIT...

- Information Retrieval
- Recommender system: item based collaborative filtering
- Recommender system: user based collaborative filtering

... and... and ... and



EVALUATION

determine a subject's merit
worth and significance

METHODOLOGY

using criteria based on a set of
standards

User interface: preference, time
spent in site

- Information Retrieval:
 - precision, recall, F measures.

- Recommender system: item
or user based collaborative
filtering: DCG, precision @ k

WHAT IS A GOOD
MEASURE OF
SUCCESS?

WHAT IS THE SUBJECT?

WHAT FACTORS DETERMINE THE SUBJECT'S MERIT?

WHAT STANDARDS ARE THERE TO STUDY THEM?

ARE WE MEASURING THE RIGHT THING?

SWITCH

MANY FACTORS IN PLAY

each with its own evaluation criteria

what is expected from the system?

X

UX

A PERSON'S PERCEPTIONS AND RESPONSES THAT RESULT FROM
THE USE OR ANTICIPATED USE OF A PRODUCT, SYSTEM OR
SERVICE.

ISO - 9241-210 (2010)

WHY UX?

- Perceptions and responses
- from use
- or **anticipated use** of product or service

WHAT ARE THE USER'S EXPECTATIONS?

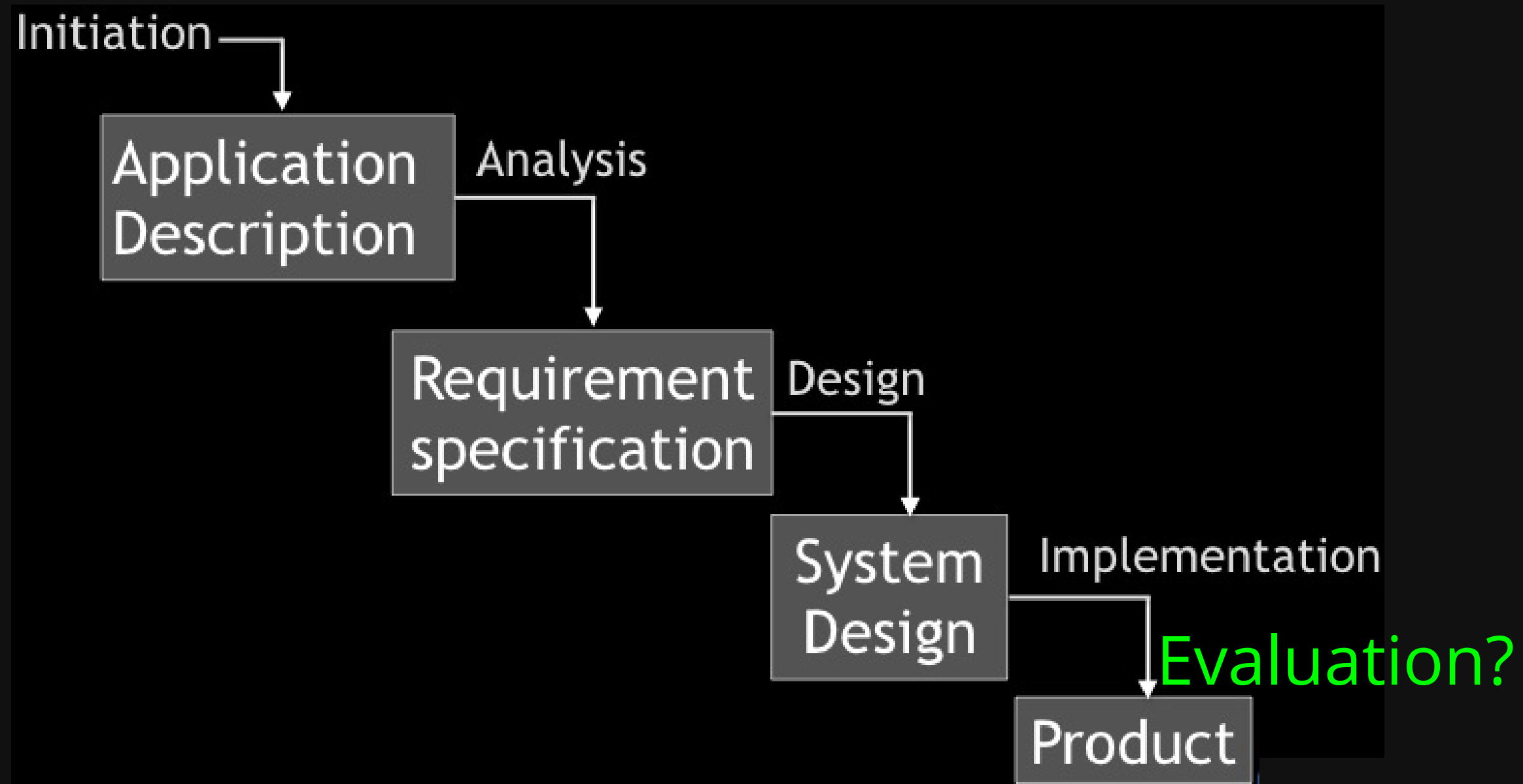
HOW DO PARTS OF THE SYSTEM FULFILL THEM?

WHAT STANDARDS ARE THERE TO STUDY THEM?

ARE WE MEASURING THE RIGHT THING?

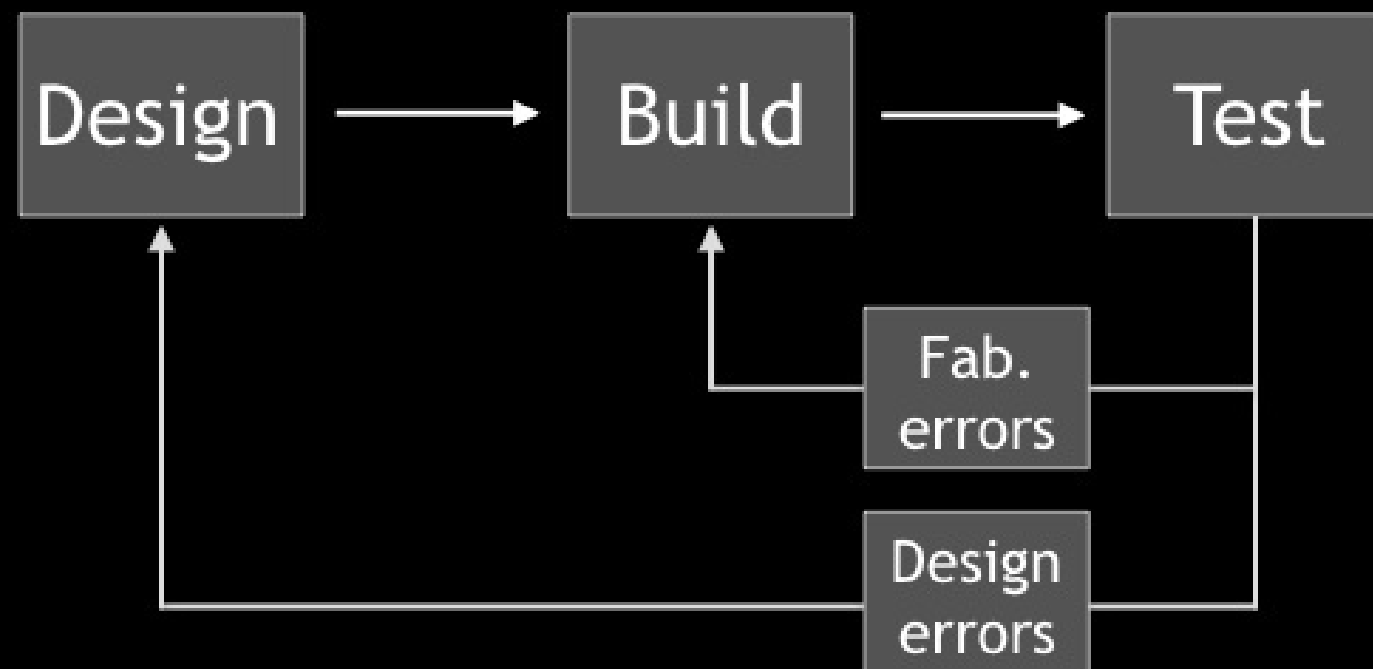
WHEN DO WE EVALUATE?

WATERFALL MODEL OF SW ENGINEERING



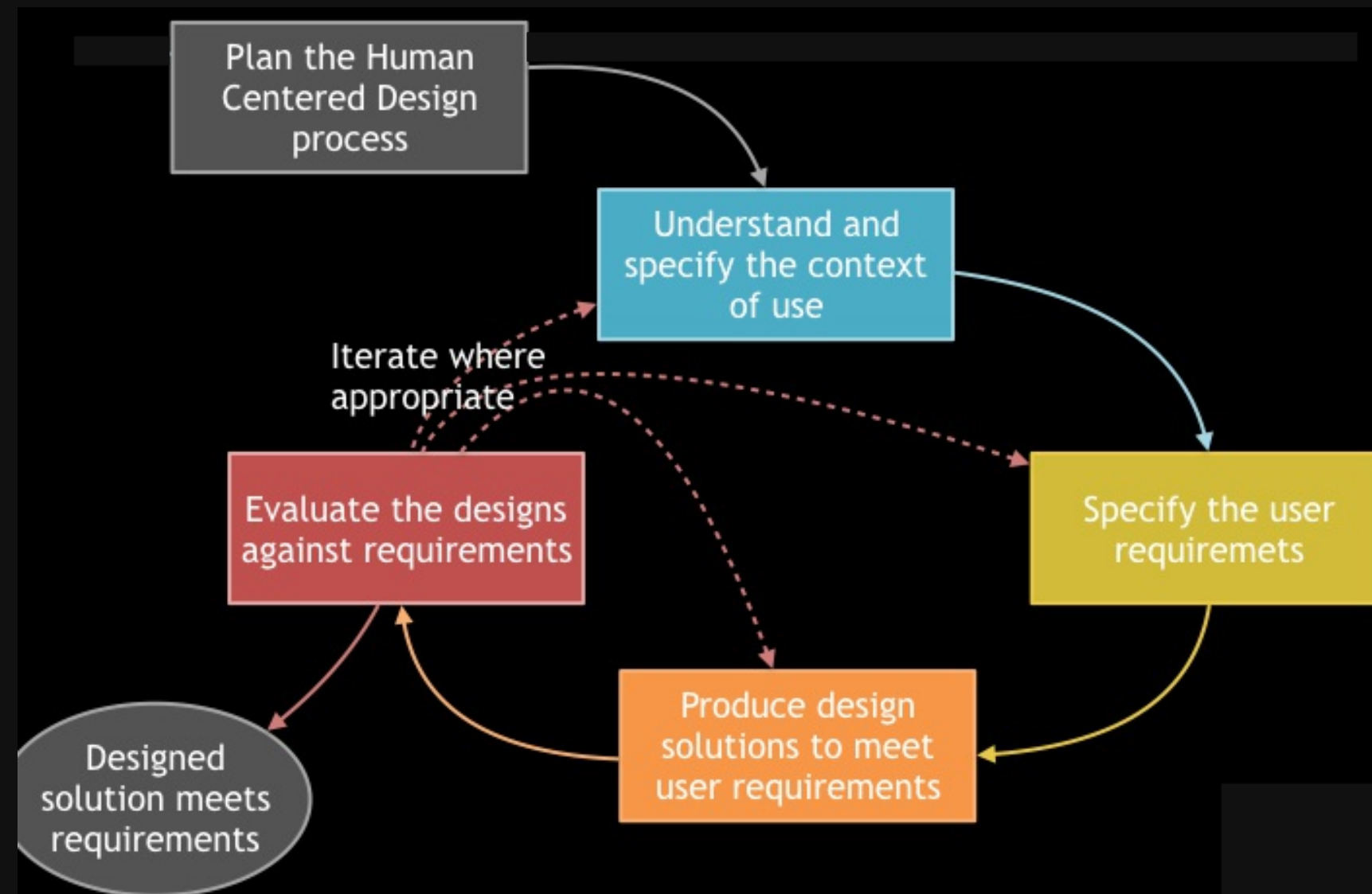
HOW DO WE KNOW
WE ARE DOING IT
RIGHT?

CYCLE OF PRODUCT DESIGN



Alice Agogino. NASA Jet Propulsion Lab

USER CENTERED DESIGN

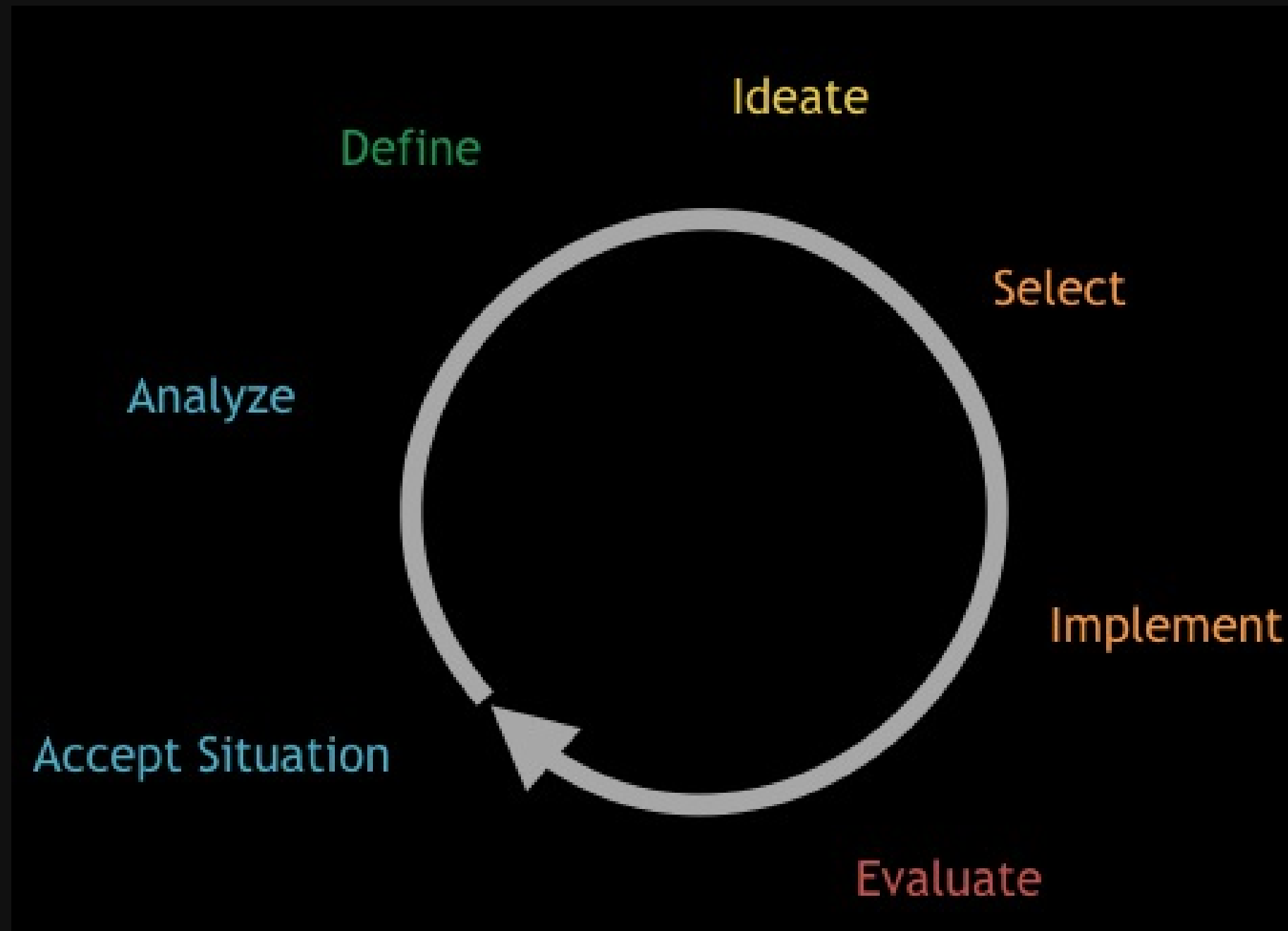


CREATIVE PROBLEM SOLVING



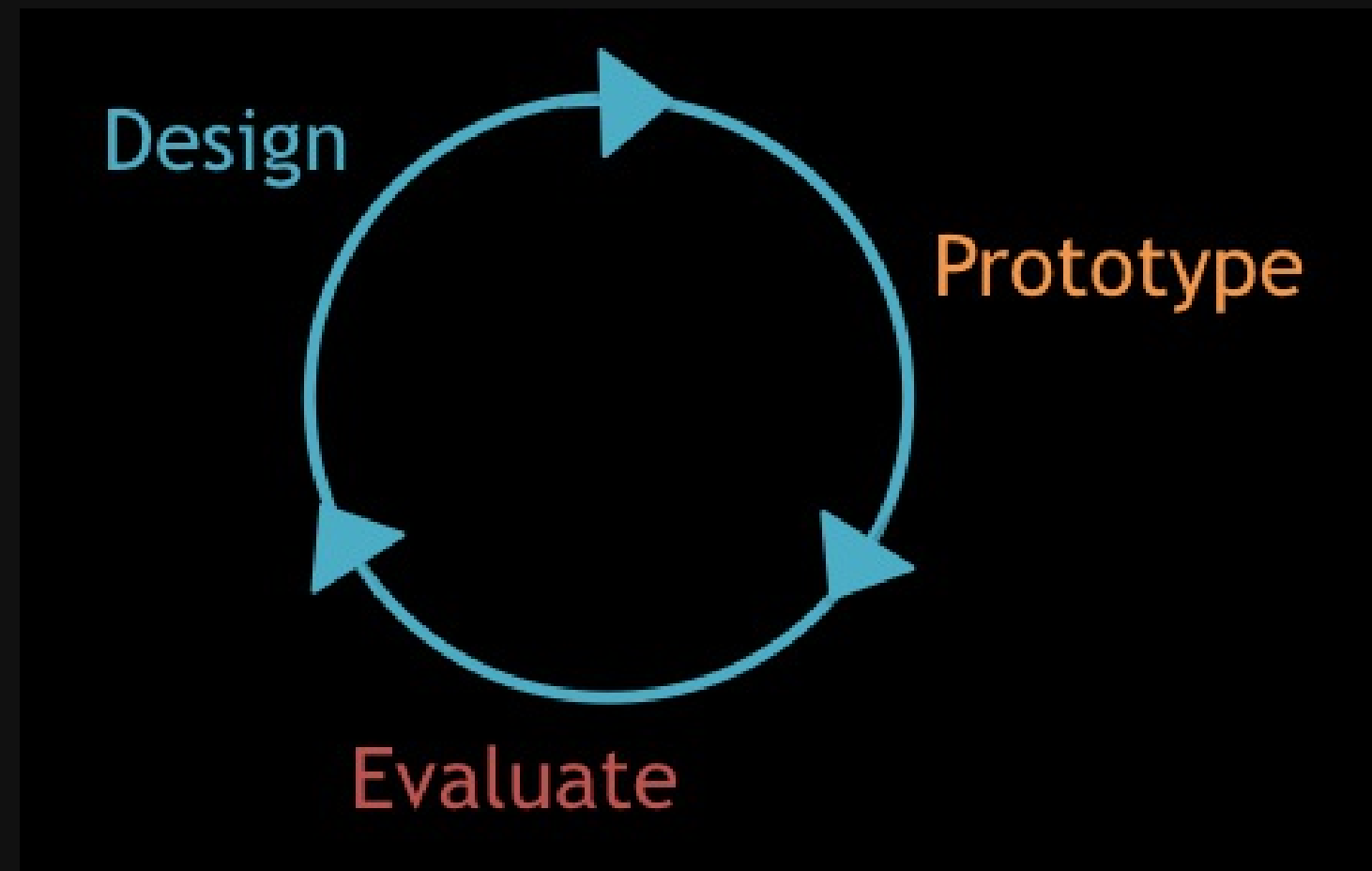
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CREATIVE PROBLEM SOLVING

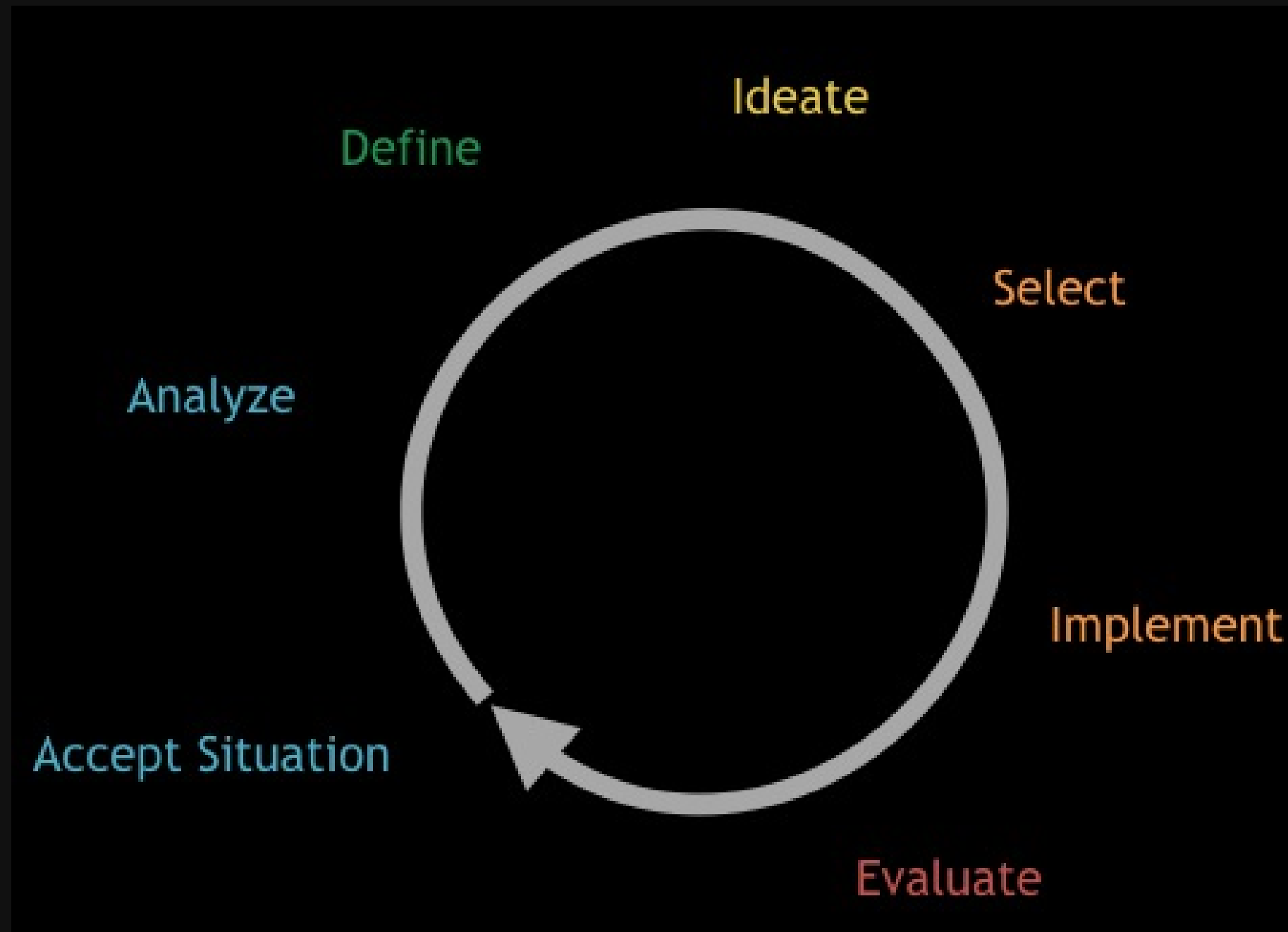


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EVALUATION IS CONTINUOUS

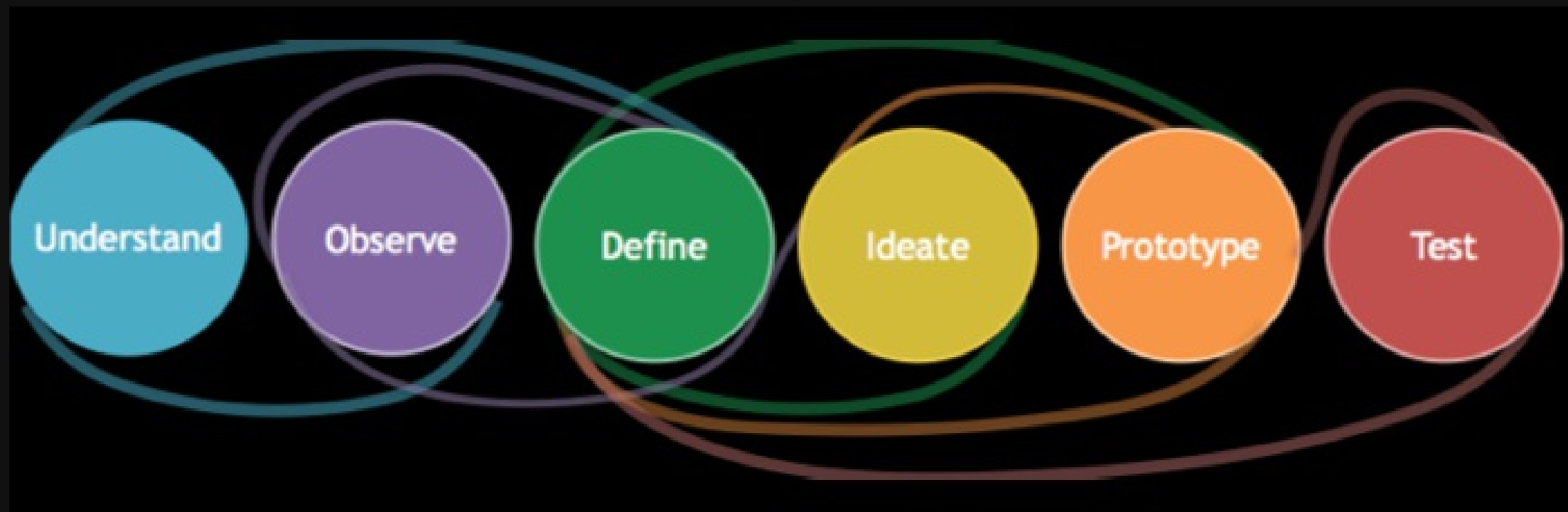


CREATIVE PROBLEM SOLVING



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DESIGN THINKING



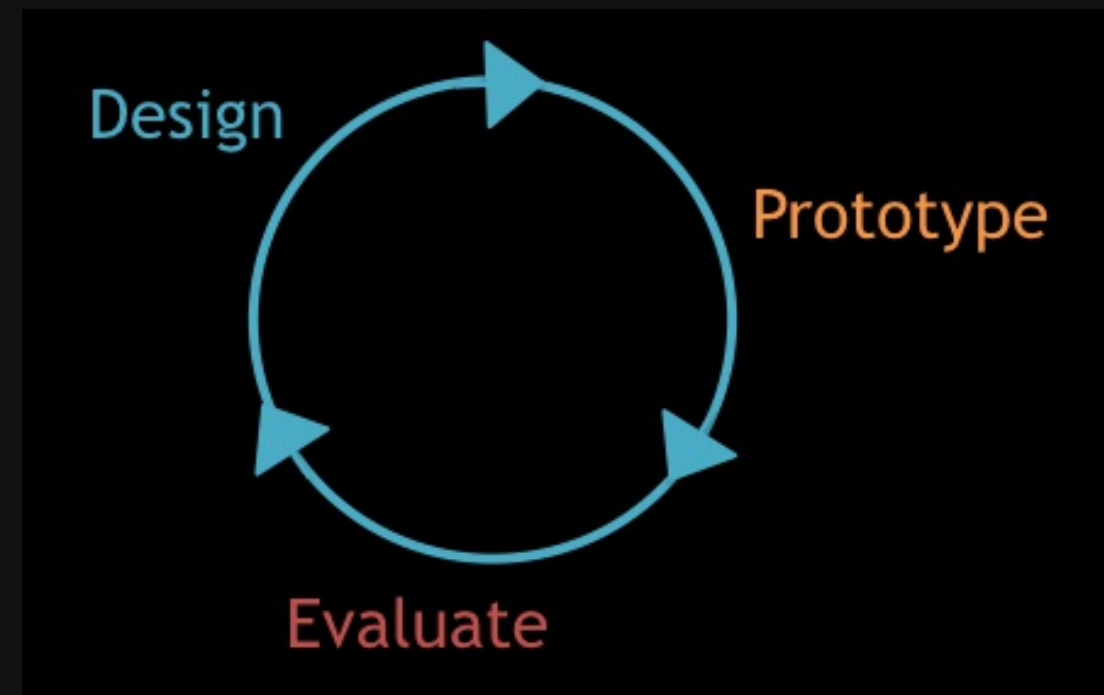
DESIGN THINKING

Fail often and soon

EVALUATION GOALS

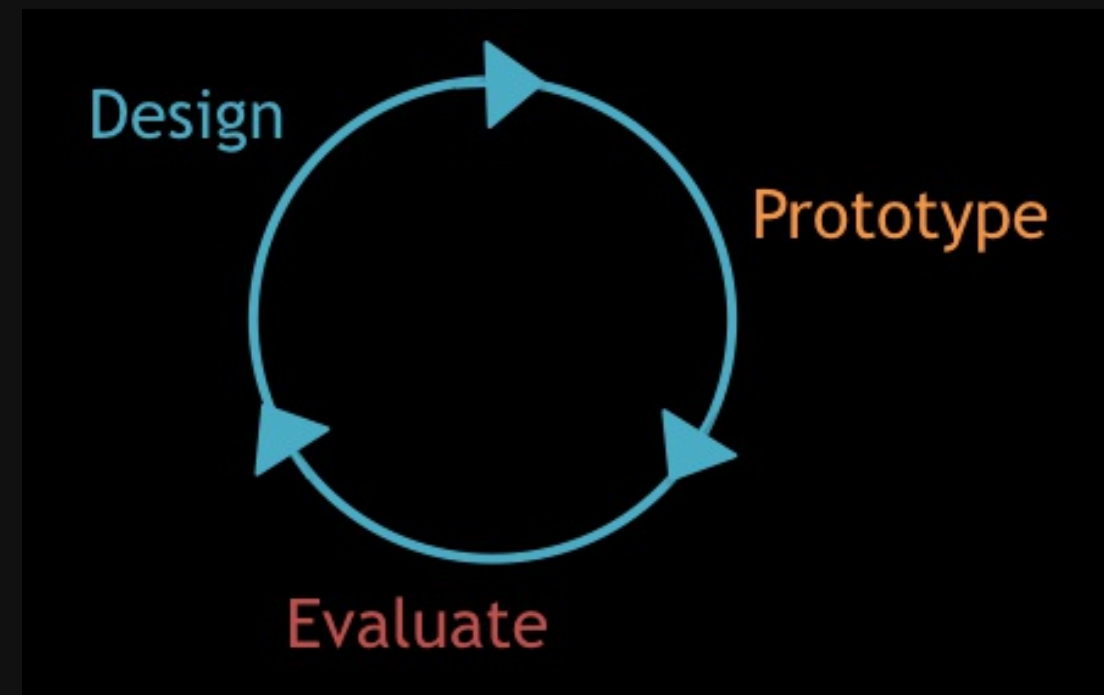
EVALUATION GOALS

- to understand
- as we observe
- to define
- to explore ideas
- to select ideas
- to validate designs



EVALUATION IS CONTINUOUS

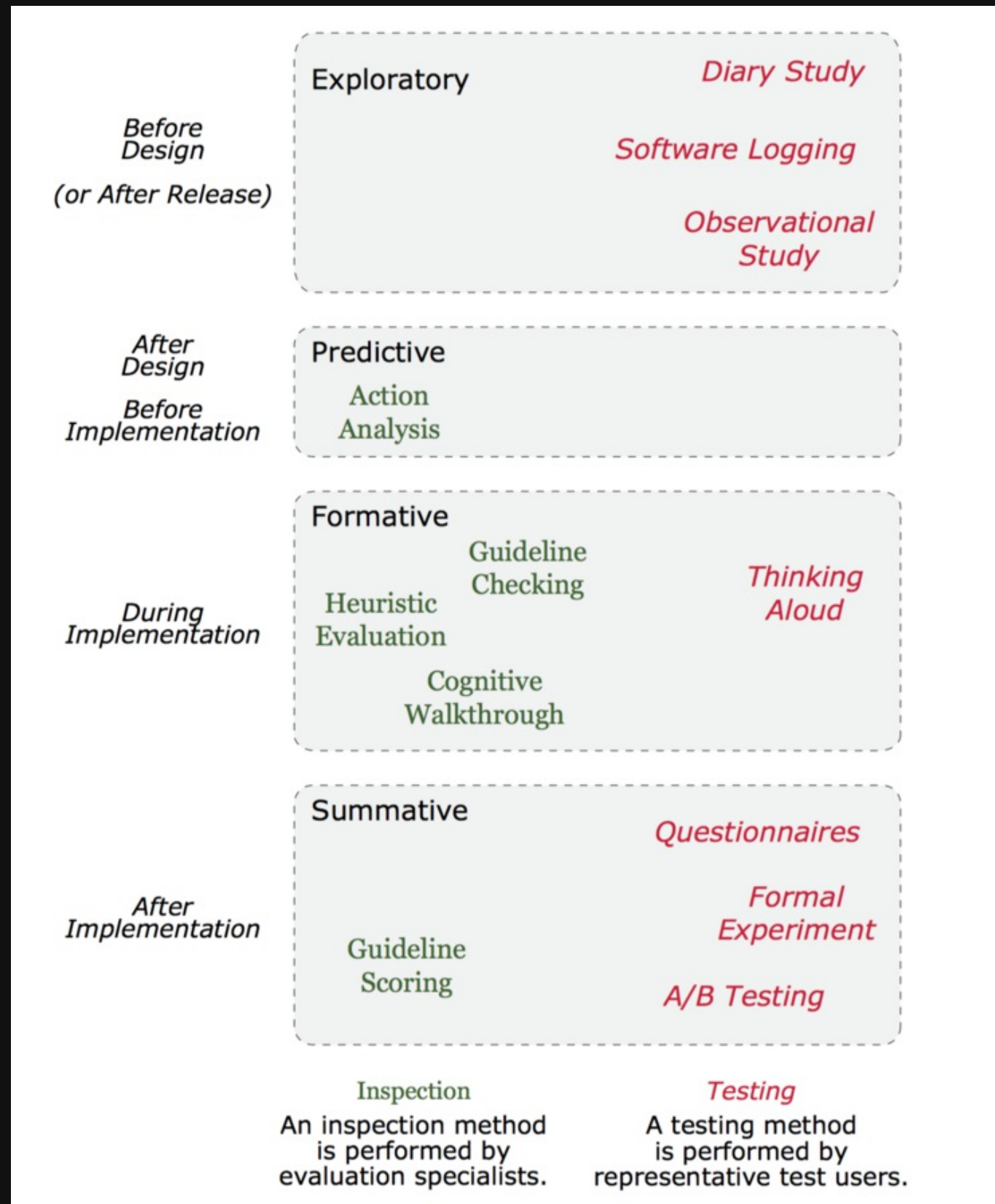
- Project stage defines evaluation goals
- Subject and goal define methodology
- Evaluation results inform iteration or continuation to next stage



EVAL. METHODS

Evaluation methods
grouped by purpose. From
Andrews notes on HCI

<http://courses.iicm.tugraz.at/hci/>



706.712 - EVALUATION METHODOLOGY

706.712 EVALUATION METHODOLOGY

If you find this course valuable, you have to score it, so other students will have the opportunity in the future.
(Lehrveranstaltungsevaluierung)

706.712 EVALUATION METHODOLOGY

Is not an intro to HCI, InfoVis, Visual Analytics, AR,
Interactive systems

Is not a course on advanced statistics, (web) usability,
interface design

is appropriate for students (PhD., Msc) and researchers
investigating (computer) methods that involve humans.

706.712 EVALUATION METHODOLOGY

WHAT YOU GET:

- Organize your research problem
- collect data about the problem
- compare different evaluation methods
- understand when each evaluation is appropriate
- properly report methodology and results

THE PATH TO MASTER EVAL

- EVALUATION BASICS
 - W1: Shaping the Experience
 - W2: Foundations of Experimental Research
- STATISTICS
 - W3: Statistics: Descriptive and Correlational Methods
 - W4: Statistics: Two-Sample Designs.
 - W5: Statistics: Multi-Sample Designs.
- W6: Measuring Experience
- W7: Putting it all together
- CASE STUDIES
 - W8: Recommender Systems
 - W10: Crowdsourcing Experiments
 - W12: Structural equations

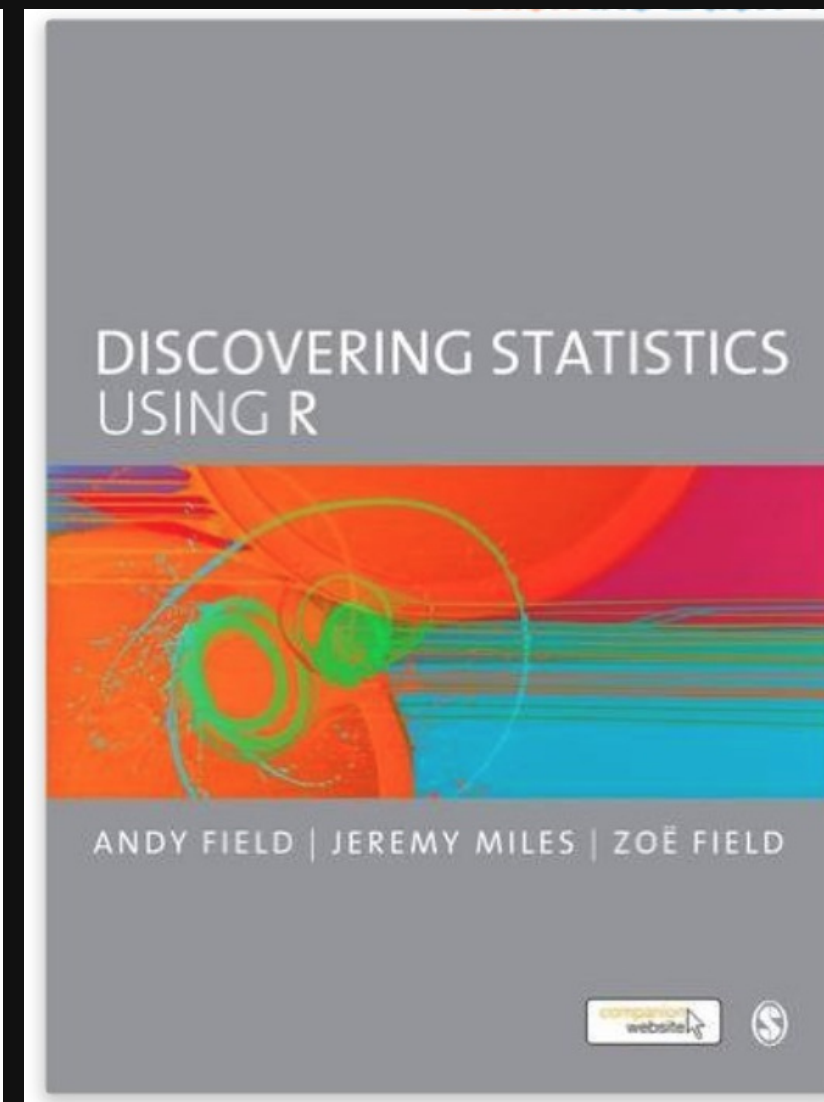
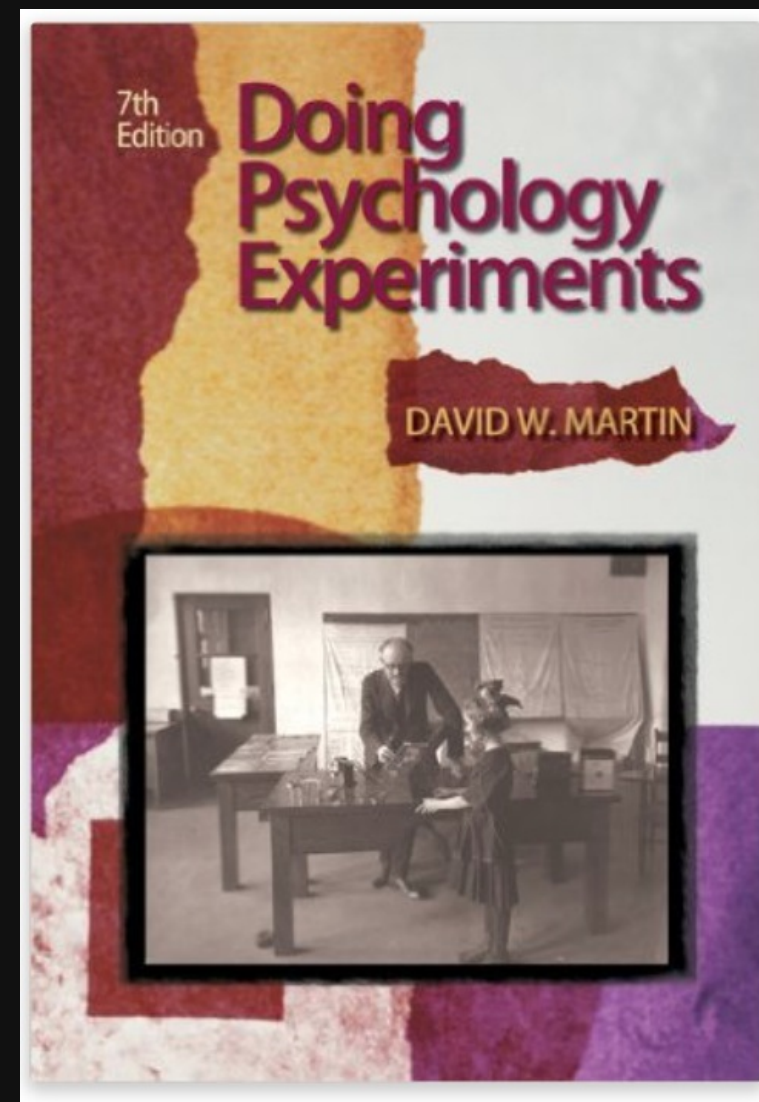


EVALUATION METHODOLOGY: GRADING

- 1 Assignment: Present evaluation method
- 2 Assignment: Participate in study
- 3 Assignment: Statistics
- 4 Assignment: Own project



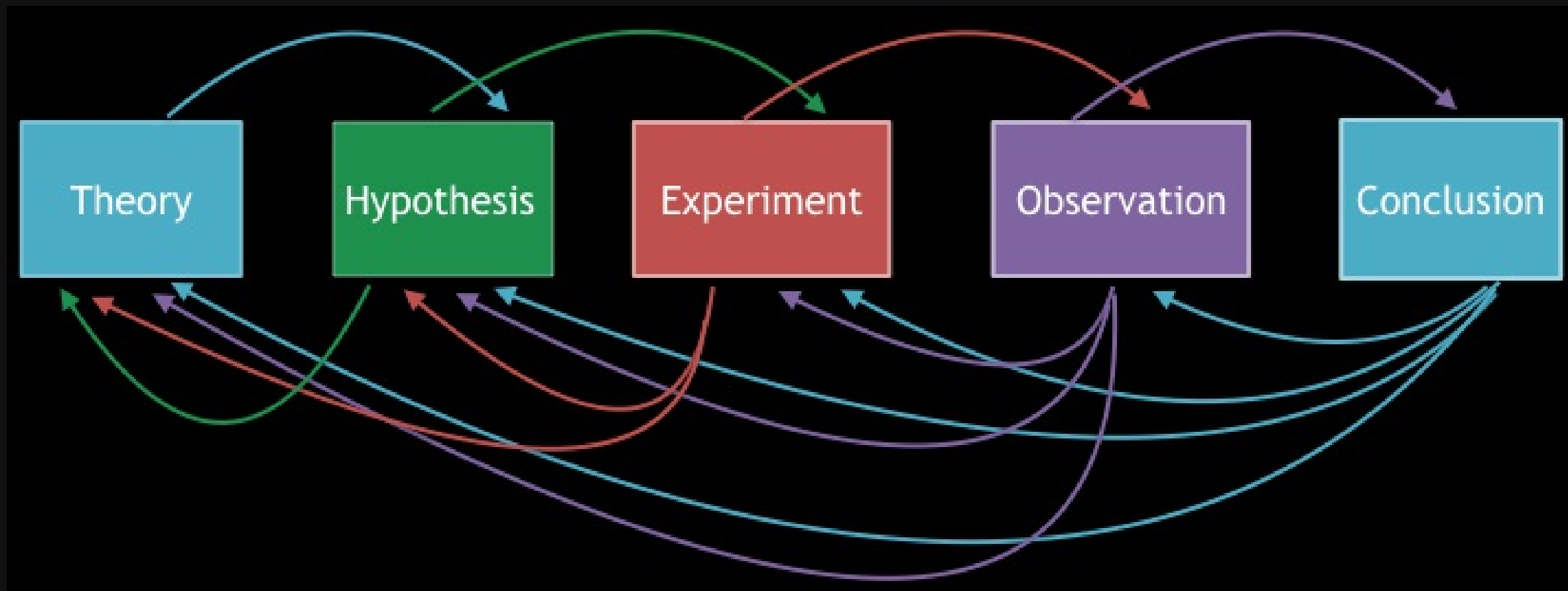
EVALUATION METHODOLOGY: BOOKS



...NAH, REALLY, WHY DO WE EVALUATE?

WHAT IS YOUR
PROJECT?

THEOC SCIENTIFIC MODEL



TWO LEVELS

I) MACRO / HOLISTIC LEVEL

II) MEASUREMENT OF SPECIFIC
VARIABLES

MACRO

Examine the process, take
the context into account,

SPECIFIC

Seeks to measure the effects
of specific variables

EVALUATION
IS A PLANNED SYSTEMATIC
AND OPEN ENDEAVOUR

EVALUATION

IS A DESIGNED AND
PURPOSEFUL ENQUIRY
WHICH IS OPEN TO
COMMENT

EVALUATION

Data driven approach

EVALUATION IS THE COLLECTION, ANALYSIS AND INTERPRETATION OF INFORMATION ABOUT ANY ASPECT OF [...] AS PART OF A RECOGNISED PROCESS OF JUDGING ITS EFFECTIVENESS, ITS EFFICIENCY AND ANY OTHER OUTCOMES IT MAY HAVE.

Mary Thorpe in "Handbook of Education Technology" (Ellington, Percival and Race, 1988)

NEXT WEEK

31.10.16 - FOUNDATIONS OF EXPERIMENTAL RESEARCH

TO DO

REGISTER YOUR PROJECT

Max 2 participants

Propose project where you'd like to plan an eval.

<https://goo.gl/forms/gFC7zLXBcrX1TvjO2>

REGISTER YOUR EVAL. TOPIC

Max 2 participants

choose evaluation method

read paper(s) [eduardo will post options] and describe
evaluation process (20m)

deadline (Thu. 3rd Nov.)

READINGS

- User Centric Design and Human Factors.
<http://link.springer.com/book/10.1007%2F978-1-4471-5134-0>
- Being Human. Microsoft Research
<http://research.microsoft.com/en-us/um/cambridge/projects/hci2020/>