

1.0 Interaction Design

WHAT IS IT?

DEFINITION

Interaction design is the design of interactive products and systems to support the way people communicate and interact in their everyday lives.

**Interaction design is an umbrella term
for all aspects of what is being designed:**

User Interface Design (UI)

Software Design

Product Design

User Experience Design

Web Design

It's about the big picture, a holistic approach to problem solving.

Interaction design is fundamental to all disciplines, fields, and approaches that are concerned with researching and designing interactive products and systems for people.

DESIGNism #1

**NOTHING IS USEFUL, IF WE DON'T
KNOW HOW TO USE IT.**

What's the point?

Interaction design exists because people need intuitive systems to help learn, perform tasks, and navigate through new and existing content, technology, and spaces.

We are aiming to improve communication between people and their environment.

INTERACTIVE PRODUCTS

Smartphones / handheld devices
Toys / games
Remote controls
Household technology
Mobile applications / software
Websites
Robotics



INTERACTIVE SYSTEMS

Airport / mall kiosks

Restaurants / stores

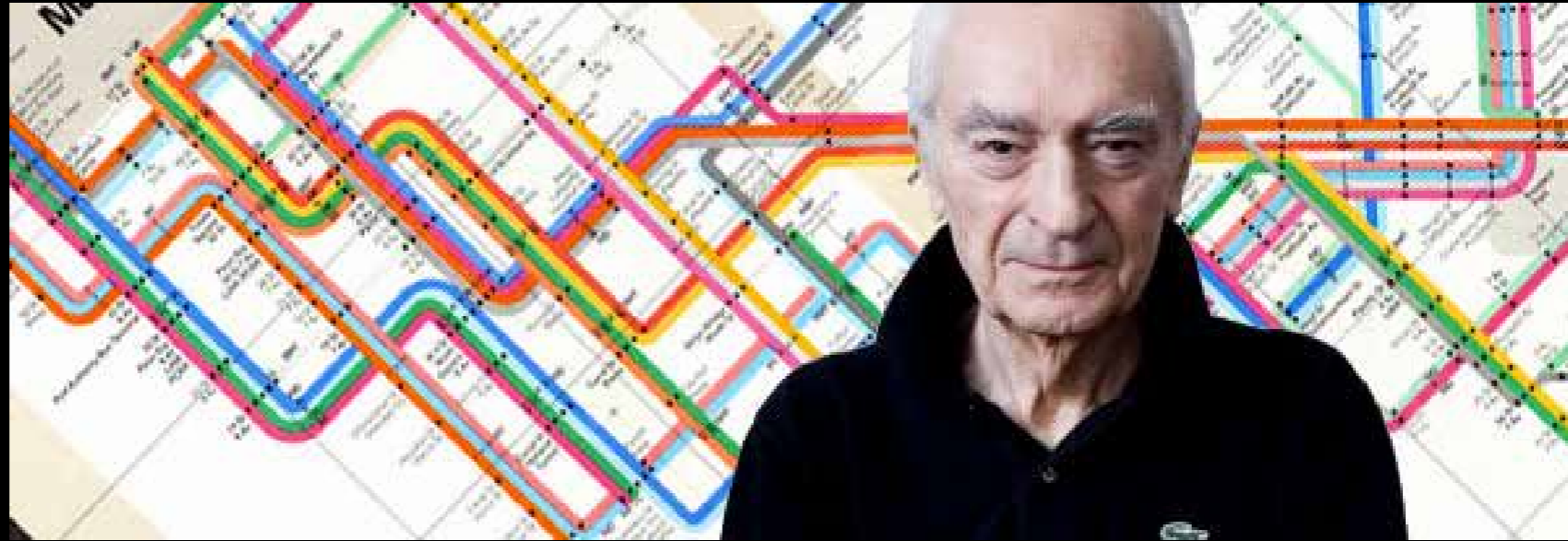
Exhibition graphics

Signage / wayfinding / navigation

Theme parks



BILL & MELINDA GATES FOUNDATION SEATTLE, WA



MASSIMO VIGNELLI NYC SUBWAY MAP, 1972

USER-CENTERED DESIGN (UCD)

User-centered design is a philosophy and a process in which the needs, wants and limitations of end users (of a product or system) are given extensive attention at each stage of the design process.

Who is this product for?

Why would they use it?

How will they use it?

USABILITY

Ensure that interactive products are easy to learn, effective to use, and enjoyable from the user's perspective.

“Can I use it?”

USABILITY GOALS

effective, efficient, safe, utility,
learnability, memorability



USER EXPERIENCE (UX)

The user experience is how people feel about the product and their pleasure and satisfaction when using it.

“Do I want to use it?”

UX GOALS

satisfaction, enjoyable, engaging,
entertaining, motivating, challenging,
rewarding, helpful





INTERACTION TYPES

There are four main types of interactions. Understanding which interaction type to use helps designers choose which interface and behaviors to implement.

INSTRUCTING

tell time
print a files
reminders
word processing

CONVERSING

search engines
banking
ticket booking
help centers

MANIPULATING

toys / games
zooming
moving
selecting

EXPLORING

virtual tours
location-detection
technology

DESIGNism #2

**GOOD DESIGN REDUCES THE
NEGATIVE ASPECTS WHILE
ENHANCING THE POSITIVE ONES.**

DIETER RAMS
10 PRINCIPLES OF GOOD DESIGN

innovative

useful

beautiful

understandable

unobtrusive

honest

long-lasting

thorough / detailed

environmentally friendly

simple

GOOD

simple
easy
clear
minimal
effective
valuable

BAD

complicated
difficult
confusing
cluttered
inconsistent
useless



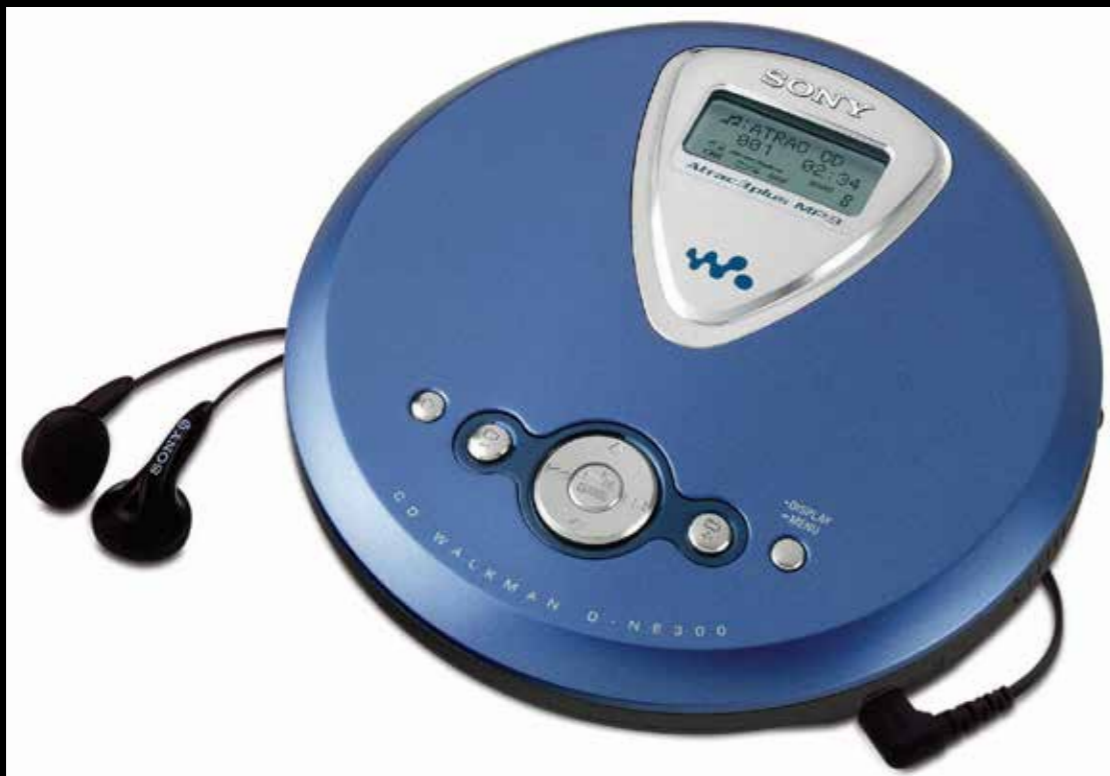
REVOLUTIONARY or EVOLUTIONARY

Not all products and systems need to be new and original.

Research will determine whether or not you need a revolutionary concept or an evolutionary redesign of the current model.

REVOLUTIONARY or EVOLUTIONARY

Was the first Apple iPod revolutionary or evolutionary?



REVOLUTIONARY or EVOLUTIONARY

Was the first Apple iPod revolutionary
or evolutionary?

Why not?

REVOLUTIONARY or EVOLUTIONARY

Was the first Apple iPod revolutionary or evolutionary?

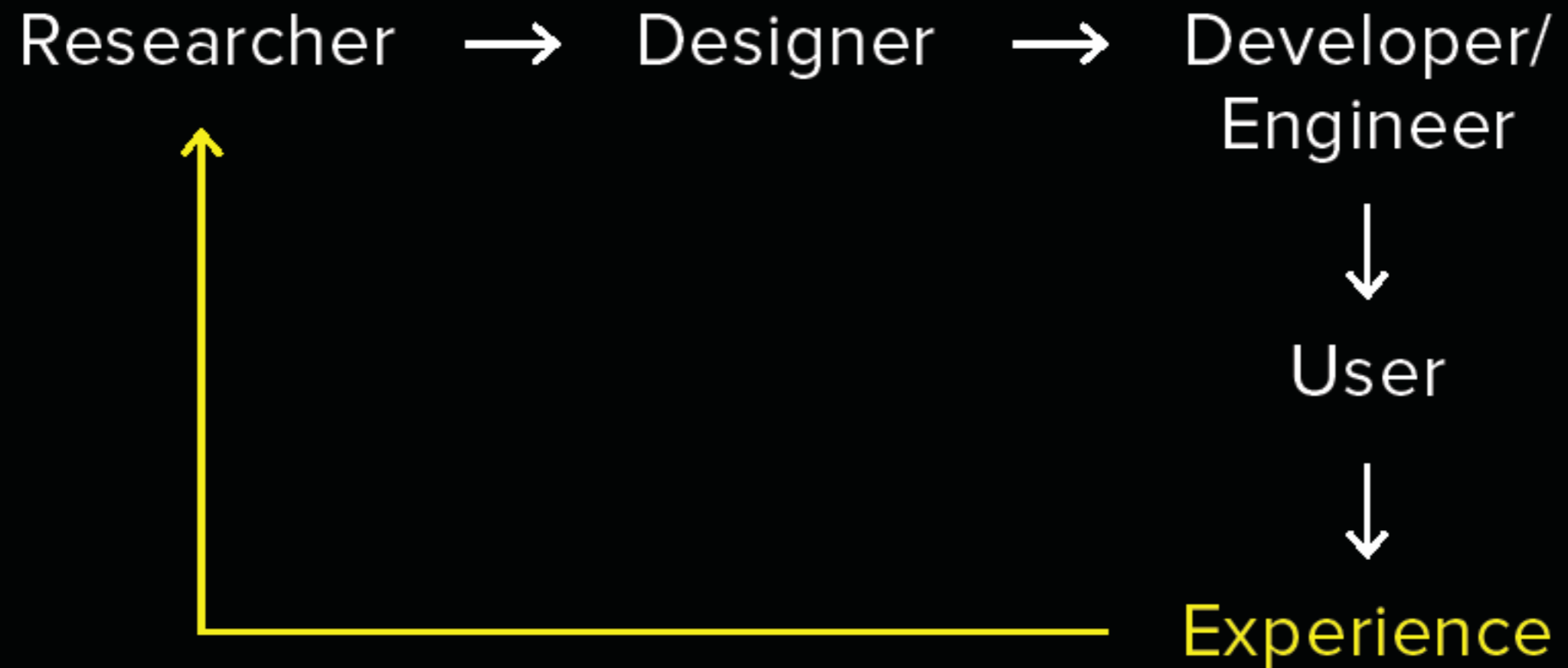
Why not?

Existing experience: personal music player, with different technology

GRAPHIC DESIGN

Designer → Audience

INTERACTION DESIGN

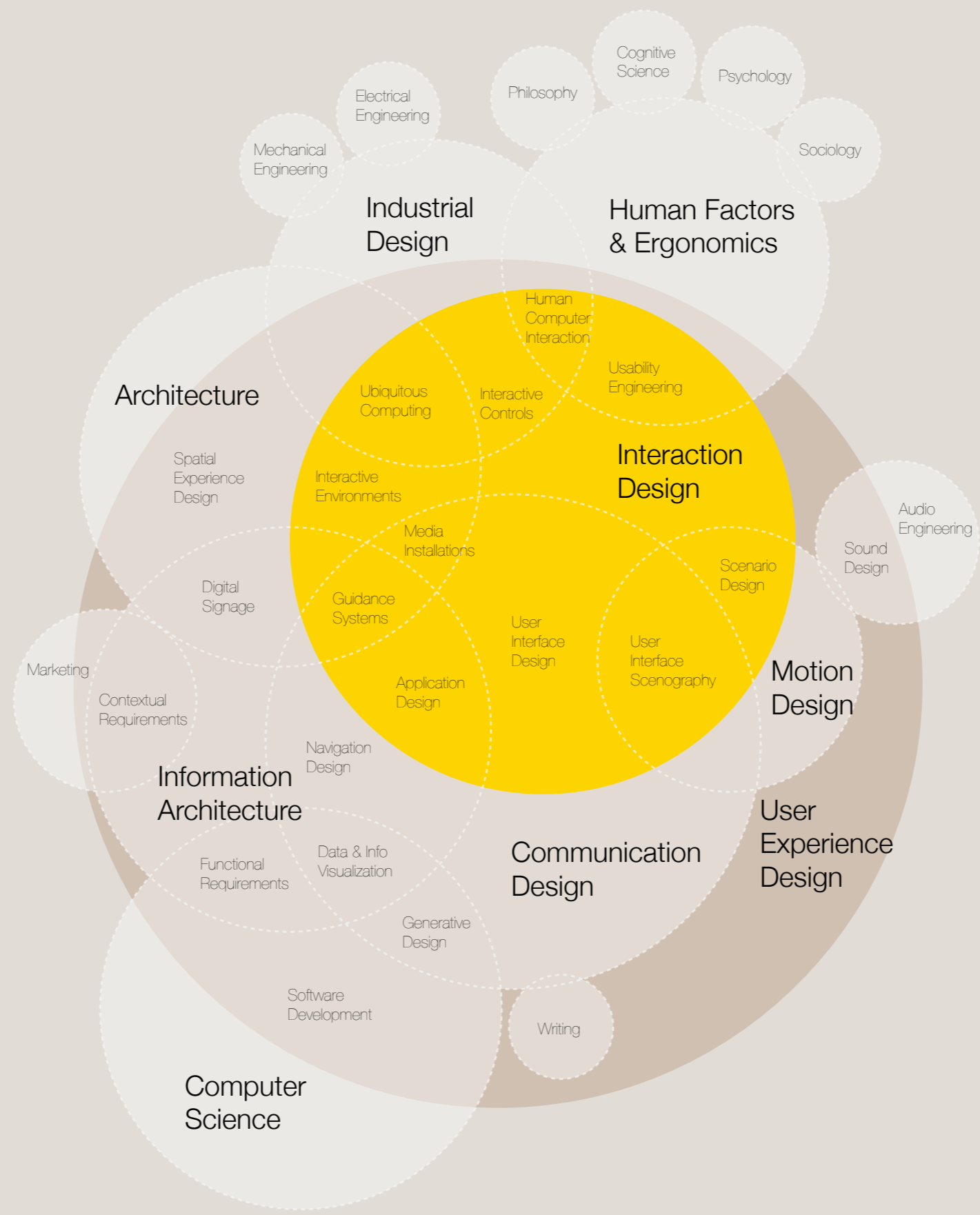


INTERACTION DESIGN TEAM

keyword = team

The design of products and systems is never done by one person.

They are created by teams formed by people from many disciplines.



HUMAN FACTORS / RESEARCH

UX Researcher (UX)
Human Factors (HF)
Psychology
Sociology

DESIGN

Visual Design
Product Design
Industrial Design
Environmental Design
Information Design
Animation / motion

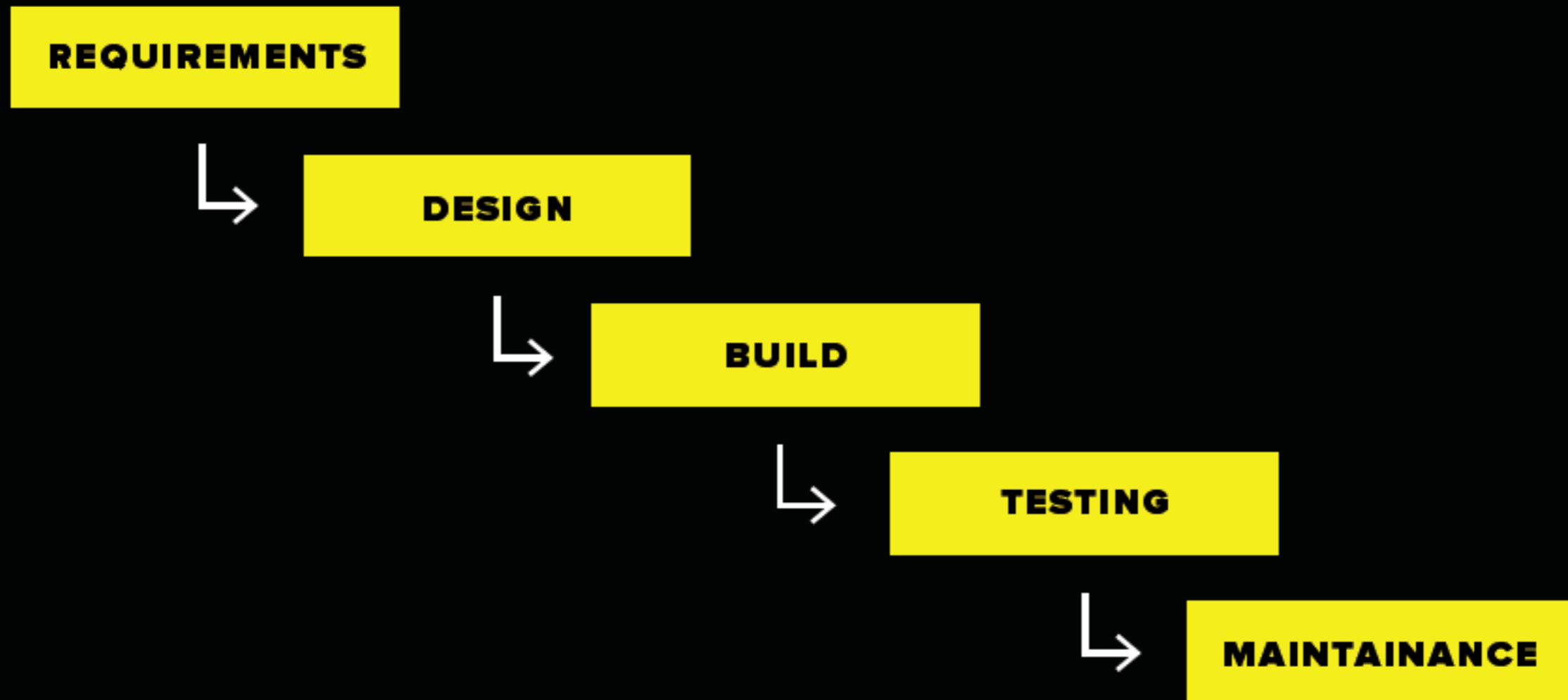
ENGINEERING

Computer Science
Engineering
Human-Computer
Interaction (HCI)
Information Architecture (IA)

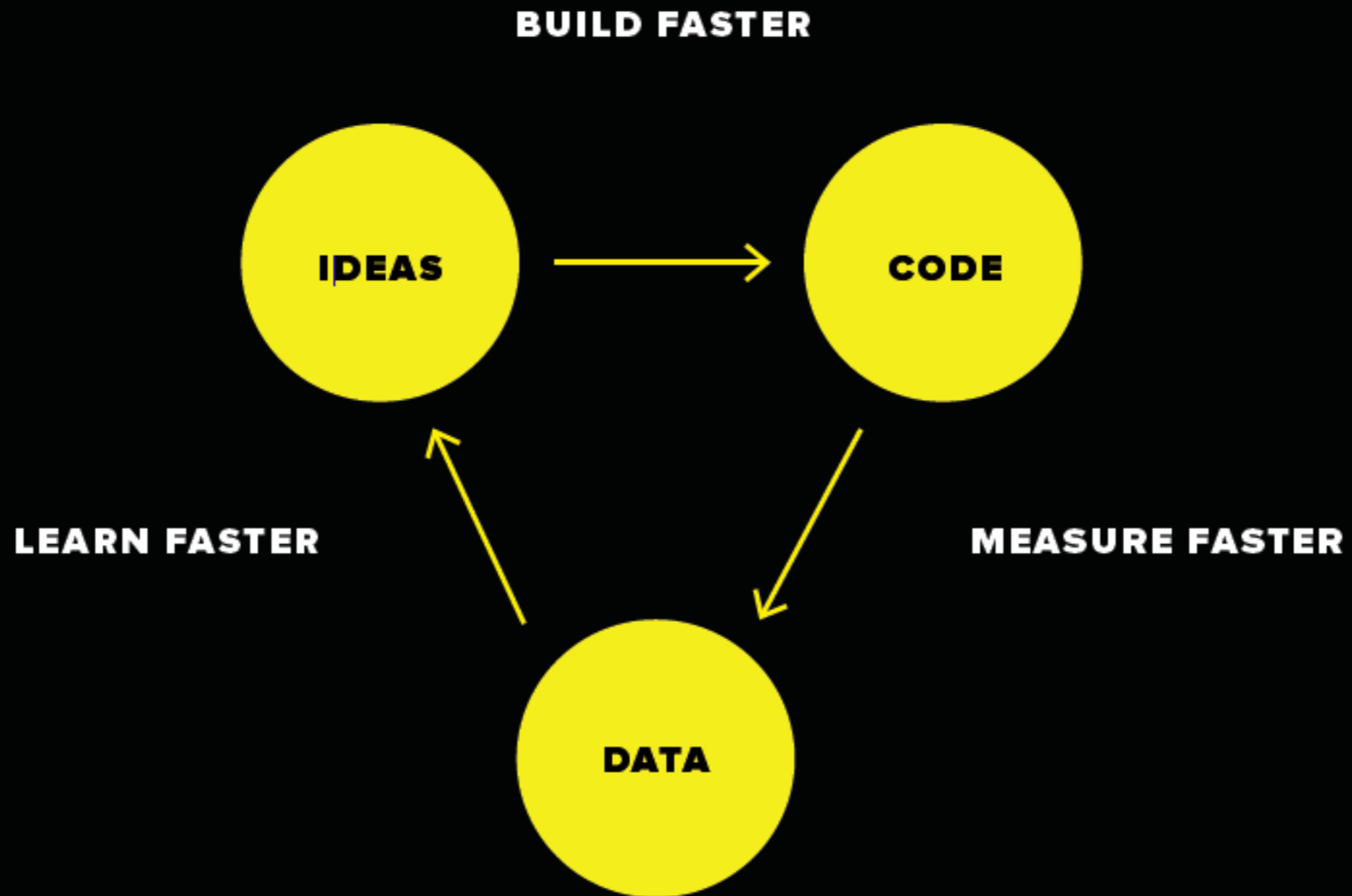
BUSINESS

Marketing
Product Development
Content Writing

DEVELOPMENT CYCLE: WATERFALL



DEVELOPMENT CYCLE: ITERATIVE (AGILE or LEAN)



AGILE

BUILDING

Replace high-level design with frequent redesign.

**ITERATIVE and INCREMENTAL
COLLABORATIVE
ADAPTIVE PLANNING**

LEAN

LEARNING

Everything not adding value to the customer is waste.

**REDUCES COST
MINIMUM VIABLE PRODUCT
QUICK LAUNCH**

PROCESS

PHASE 1: RESEARCH and REQUIREMENTS

Define problem, content gathering, user research

PHASE 2: PRODUCT DEVELOPMENT and DESIGN

Brainstorming, content integration, design, and system development

PHASE 3: BUILD and IMPLEMENTATION

Visual design, programming, refine product

PHASE 4: TESTING and EVALUATION

Usability testing, revisions, and bug fixes

DESIGNism #3

**THE ULTIMATE INSPIRATION
IS THE DEADLINE.**

-Nolan Bushnell (Kong, Atari, Chuck E. Cheese)