The anatomy of a student learning experience

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Forces shaping contemporary design practice:

- Increasing complexity in the scale of contemporary problems
- Escalating demand for interdisciplinary teamwork
- Accelerating pace of technological evolution
- Growing participation by users in the development of content and form
- Expanding accountability for anticipating the outcomes of design action

The design of learning experiences:

- open-endedness
- situatedness
- responsiveness
- position
- integration
- assessment

open-endedness

excerises

Render a mechanical object, using only black and white,
to illustrate the Gestalt principle of closure.

open-endedness

excerises

Design a poster on a typeface and its designer, including
a full alphabet, examples from history that use the typeface,
and the designer’s biography.

open-endedness

excerises

puzzles

Package a raw egg, using only toothpicks and glue, so that it survives a drop of 10 feet. The student who uses the least number of toothpicks wins!

open-endedness

excerises

puzzles

problems

Design a system for helping people who live in urban “food deserts” to eat a healthy diet and to develop good nutritional habits in their children.

open-endedness

excerises

puzzles

How might a reader’s interaction with magazines read on the iPad be different from the same content in print?.

problems

speculations

open-endedness

excerises

puzzles

problems

speculations

open-endedness

excerises

puzzles

problems

speculations

How much of what kind?

At what point in the course/curriculum?

In service of achieving what learning objectives?

situatedness

the goodness of fit
between form
and context

situatedness

the goodness of fit
between form
and context

HIV prevention information for teenagers

situatedness

the goodness of fit between form and context

HIV prevention information for teenagers

HIV prevention information for 15-17 year-old girls

HIV prevention information for 15-17 year-old girls who have dropped out of school

situatedness

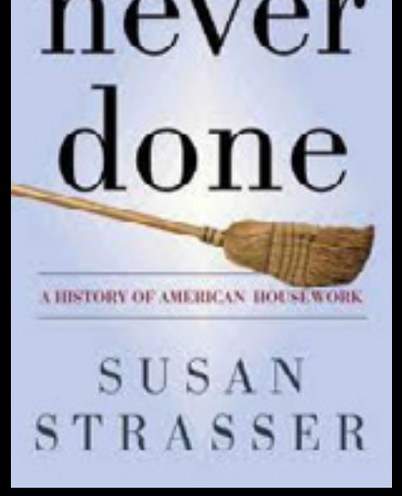
the goodness of fit between form and context

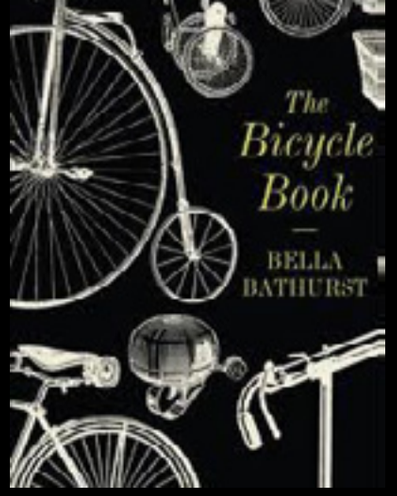
HIV prevention information for teenagers

HIV prevention information for 15-17 year-old girls

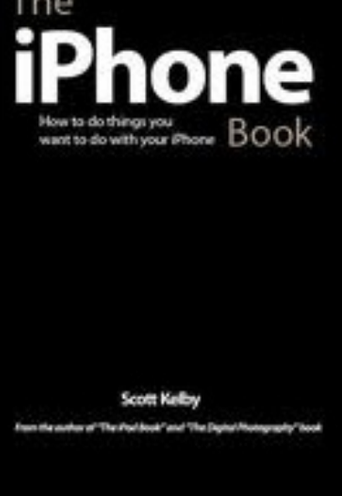
HIV prevention information for 15-17 year-old girls who have dropped out of school

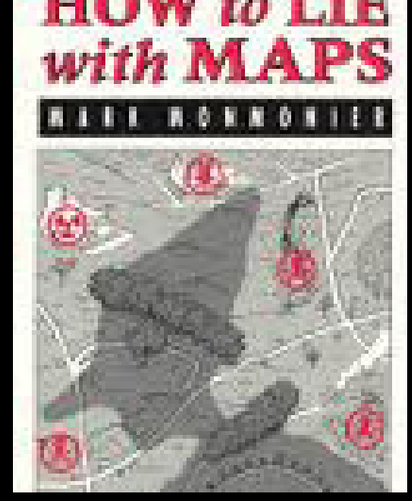
HIV prevention information for 15-17 year-old girls who have dropped out of school and live on the streets

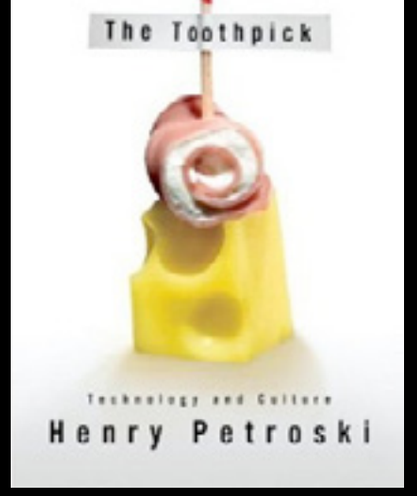

never done
A HISTORY OF AMERICAN HOUSEWORK
SUSAN STRASSER

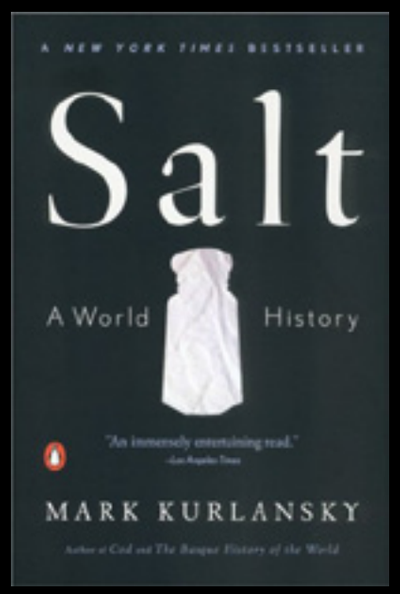

The Bicycle Book
BELLA BATHURST

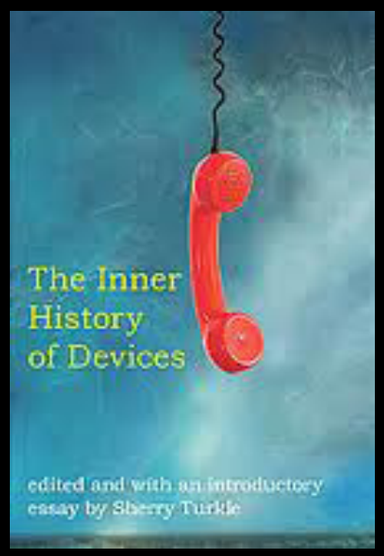
FIFTY SHOES THAT CHANGED THE WORLD

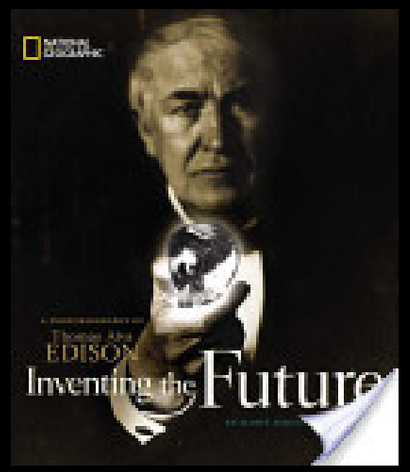

The iPhone Book
How to do things you want to do with your iPhone
Scott Kelby


HOW to LIE with MAPS

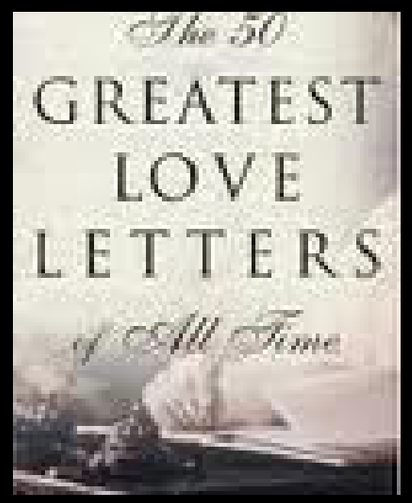

The Toothpick
Technology and Culture
Henry Petroski

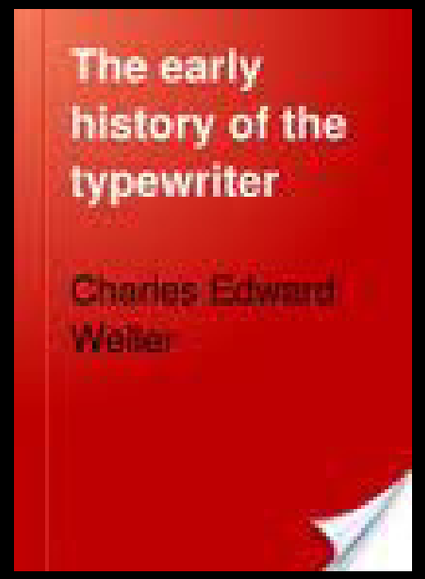

A NEW YORK TIMES BESTSELLER
Salt
A World History
"An immensely entertaining read."
MARK KURLANSKY

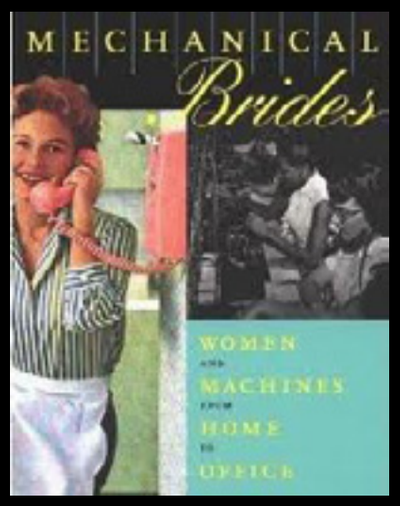

The Inner History of Devices
edited and with an introductory essay by Sherry Turkle

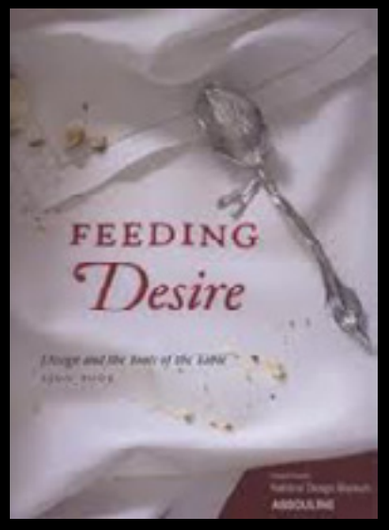

EDISON
Inventing the Future

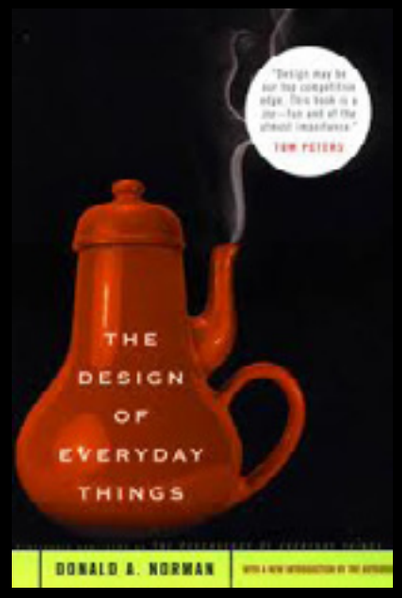
Pietra Rivoli
THE TRAVELS OF A T-SHIRT IN THE GLOBAL ECONOMY
SECOND EDITION
Revised and Updated

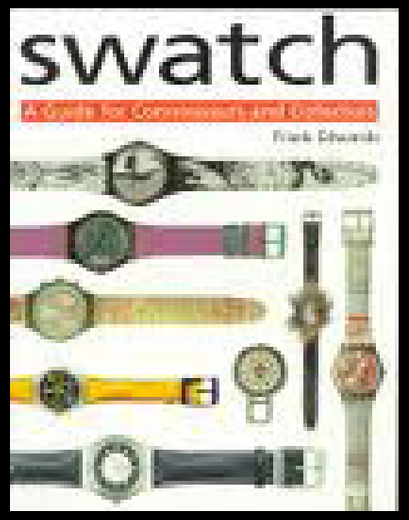

The 50
GREATEST LOVE LETTERS
of All Time

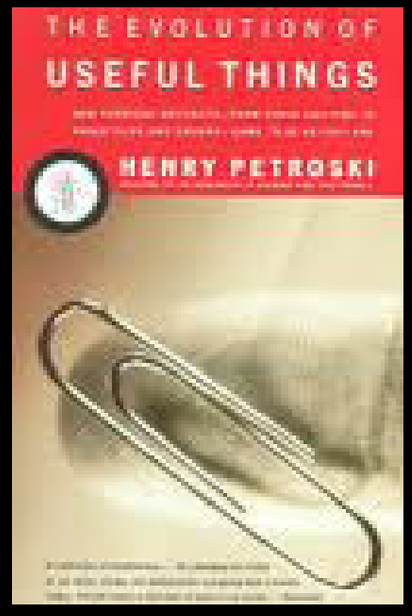

The early history of the typewriter
Charles Edward Weller


MECHANICAL Brides
WOMEN and MACHINES from HOME to OFFICE


FEEDING Desire


THE DESIGN OF EVERYDAY THINGS
DONALD A. NORMAN


swatch
A Guide for Connoisseurs and Collectors
Frank Edwards


THE EVOLUTION OF USEFUL THINGS
HENRY PETROSKI

Evocative Objects
Things We Think With
Edited by Sherry Turkle

PERSONAL

SOCIAL/CULTURAL

A .....
B .....
C .....
D .....
E .....

enabled by technologies and systems such as

A .....
B .....
C .....
D .....
E .....

with associated social practices and structures such as

A .....
B .....
C .....
D .....
E .....

resulting in conventions and product behaviors such as

CD PLAYER
WALKMAN
STEREO
TRANSISTOR RADIO
PHONOGRAPH and LPS
RADIO
LIVE CONCERTS
PARTY MUSICIANS
ETC.

is used by people whose behaviors and attitudes are

arises from a history of ways to listen to music such as

is used in settings such as

HOME
OFFICE
JOGGING
CLASSROOM
TRAVELING
AIRPORT
RESTAURANT
BUS OR TRAIN
DRIVING
WALKING IN TOWN
ETC.

that extend or disort its meaning by...

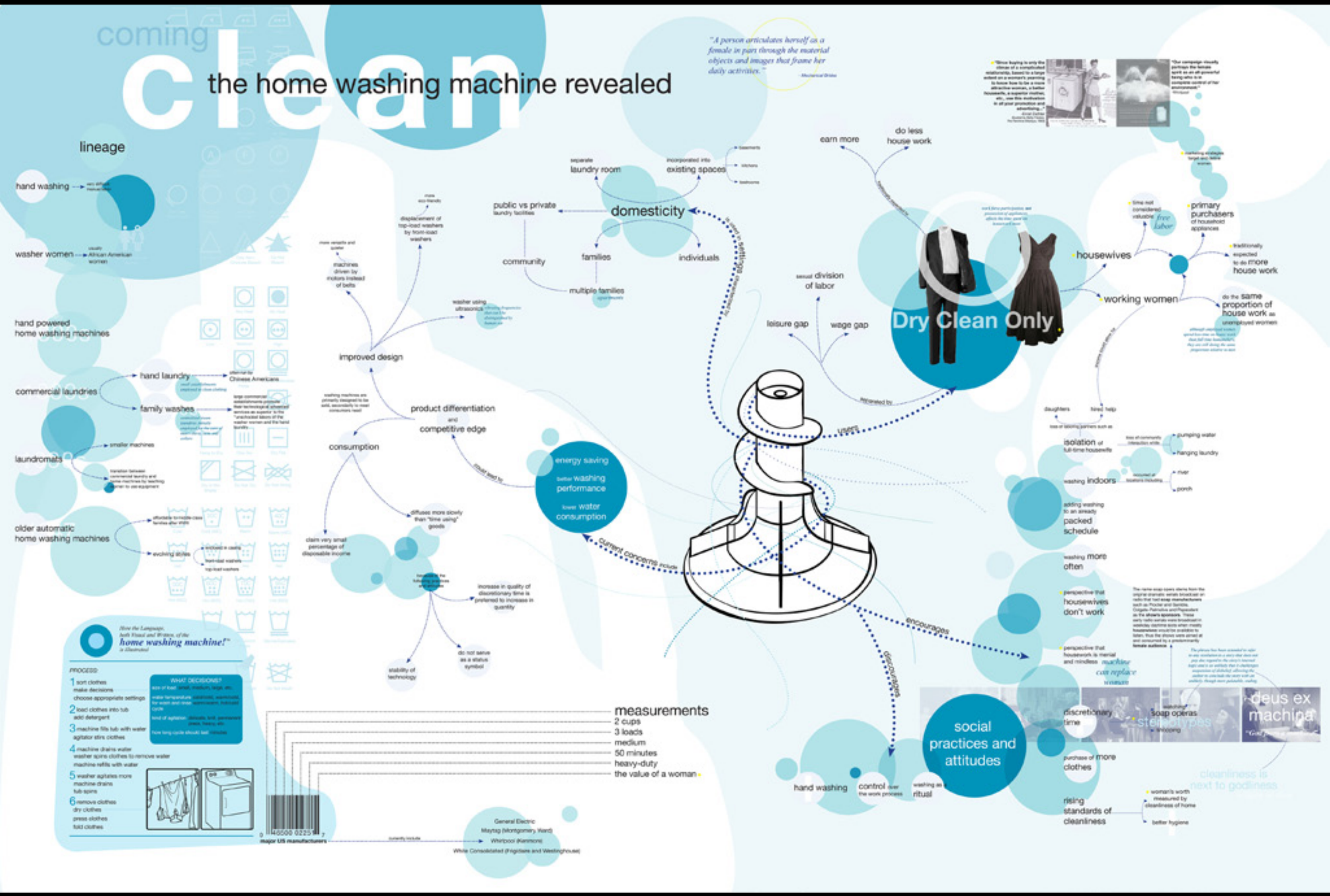
A .....
B .....
C .....
D .....
E .....

that enhance or diminish its use by...

A .....
B .....
C .....
D .....
E .....

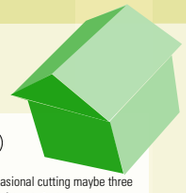
encourages or alters practices, technologies, or perspectives such as

HOW MUSIC IS RECORDED AND SOLD
INTERFACE DESIGN ON MOBILE DEVICES
ANYTIME ACCESS TO MUSIC AND INFORMATION
SOCIAL STATUS CONNECTED WITH TECHNOLOGY
iPHONE, iPAD, iMOVIES, ETC.


coming
clean
the home washing machine revealed
"A person articulates herself as a female in part through the material objects and images that frame her daily activities."
lineage
hand washing
washer women
hand powered home washing machines
commercial laundries
hand laundry
family washes
laundromats
older automatic home washing machines
improved design
product differentiation and competitive edge
consumption
energy saving
better washing performance
lower water consumption
current concerns include
domesticity
laundry room
existing spaces
public vs private laundry facilities
community
families
individuals
multiple families
earn more
do less house work
Dry Clean Only
housewives
working women
primary purchasers of household appliances
do the same proportion of house work as unemployed women
sexual division of labor
leisure gap
wage gap
users
encourages
discourages
isolation of full-time housewife
washing indoors
packed schedule
washing more often
housewives don't work
discretionary time
soap operas
deus ex machina
social practices and attitudes
hand washing
control over the work process
washing as a ritual
rising standards of cleanliness
measurements
2 cups
3 loads
medium
50 minutes
heavy-duty
the value of a woman
home washing machine!
PROCESS
1 sort clothes
2 load clothes into tub
3 machine fills tub with water
4 machine drains water
5 washer agitates more
6 remove clothes
WHAT DECISIONS?
major US manufacturers
General Electric
Maytag (Montgomery Ward)
Whirlpool (Kenmore)
White Consolidated (Frigidaire and Westinghouse)

the communal mower

1 lawn mower : 1 lawn



SOLO USE

One lawn is in need of occasional cutting maybe three times a month for about an hour or two.
If you are not hiring a lawn service, you most likely own your own gas powered, rotary lawn mower.

That is one lawnmower too many in a neighborhood of 30 lawnmowers.

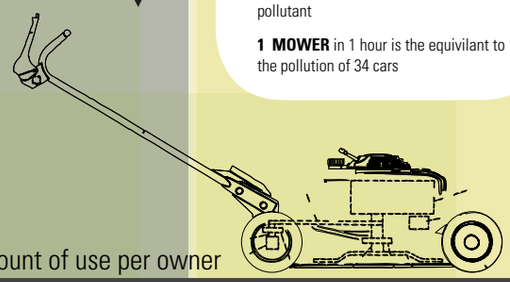
Spend less on a mower - SHARE.

Quick Facts:

1 MOWER emits 87 lbs of carbon dioxide per year

1 MOWER = 5% of nations total air pollutant

1 MOWER in 1 hour is the equivilant to the pollution of 34 cars



1 lawn mower : 3 lawns

Unique to a neighborhood
(+) Community
Supportive

Student oriented//
Shared living spaces

SETTINGS

Establish WHO?

Proximity

Self direction,
Do It Yourself

Interventions and
Expectations

INTERPRETATION

Personal Telants to Trade
- trade your own talents in order to get something from your neighbor.
"You mow, I will cook you dinner."

Social

Physical Properties and
Maintenance-
Understood Rules

Continuous Loop

Very Open

ACTIONS

Understood

The "Rules" of Play

1. Establish a "base home"
2. Create system of checking out, informing the "base owner"
3. Always fill up with gas after use, leave the way you found it
4. Log all history of use, damage, repair
5. If you break it, you fix it
6. Must be in proximity, and must be eligible to operate
7. Fail to do so, and lose privaledge of use

1 lawn mower :1 neighborhood

OFF THE GRID

Not your normal grass cutting routine, who has the talent?

Positive Experience
Social Options
-dinner party
-block party
-customize with talents
-no strangers

COMMUNAL

Comradery
Shared Ownership
Understood Respect

ECONOMICAL

Not an everyday item, good for environment

Split costs

Chore Swap
"Back Scratching"

Less gas
Less oil

INCENTIVE

Proactivity

Time Tables
Trading
Bartering

Fewer machines,
Fewer emissions

Scalability

Does anyone have a power drill?

Don't forget that there are many other household tools that can be shared throughout the neighborhood, it is a social way to use and share expensive and rarely used household tools. It is also a very good way to share space.

Pruning Shears. Hedge Cutters. Leaf Blowers. even a Food Processor!

Sustainability

Meet your neighbors.

More lawnmowers = more waste
more pollution

REDUCE: Waste reduction and minimizing by using one source is useful. The fewer materials used for the same output means the less amount of waste produced.

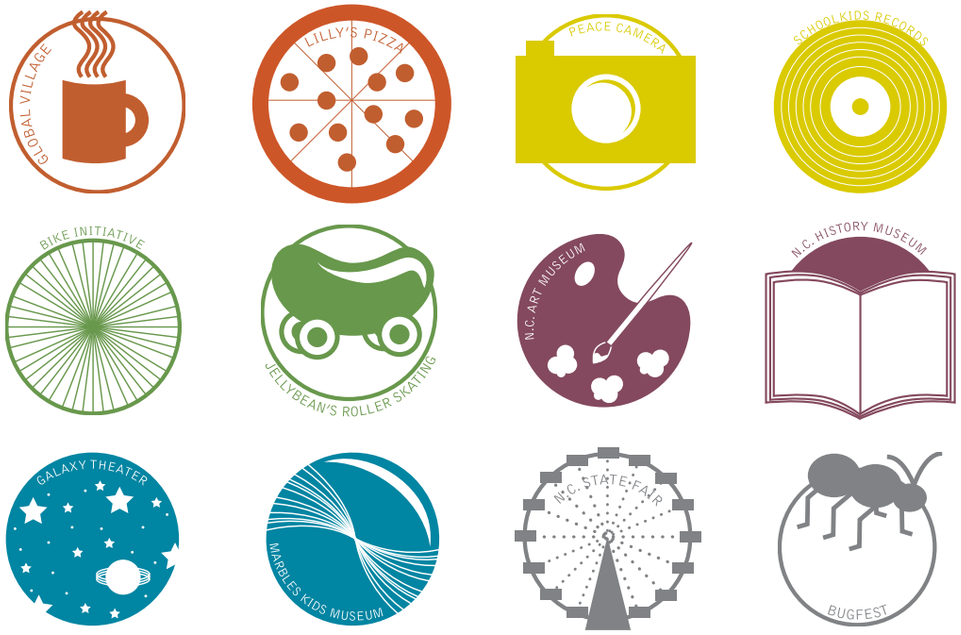
REUSE: In a neighborhood why not reuse, reuse, and reuse. This helps save the planet from harmful carbon dioxide emissions as well as save your wallet.

RECYCLE: This means making used items into new raw materials which in turn uses less energy, or repairing your existing items reducing the amount of waste. Using less energy means less emissions. Instead of buying a new mower of your own, borrow and just repair!

amount of use per owner

3 times vs. 6 times vs.12 times a month

1 1 1 2 3 2 2 4 5 3 6 7 2 4 8 9 5 10 3 11 6 12



MOBILE APPLICATION

URBAN EXPLORERS: UExploreNow Thread
Service Design
Natalie Brown

responsiveness

behavior, perception, motivation, and reasoning of audiences and users

responsiveness

behavior, perception, motivation, and reasoning of audiences and users

Subject matter / goal ⇢	A	B	C	D
1 / Teenagers	1A	1B	1C	1D
2 / Parents of teenagers	2A	2B	2C	2D
3 / Pre-schoolers	3A	3B	3C	3D
4 / Non-English-speaking adults	4A	4B	4C	4D
5 / Public officials	5A	5B	5C	5D

responsiveness

behavior, perception, motivation, and reasoning of audiences and users

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5 / Public officials	5A	5B	5C	5D

responsiveness

broadcast television

internet distributed

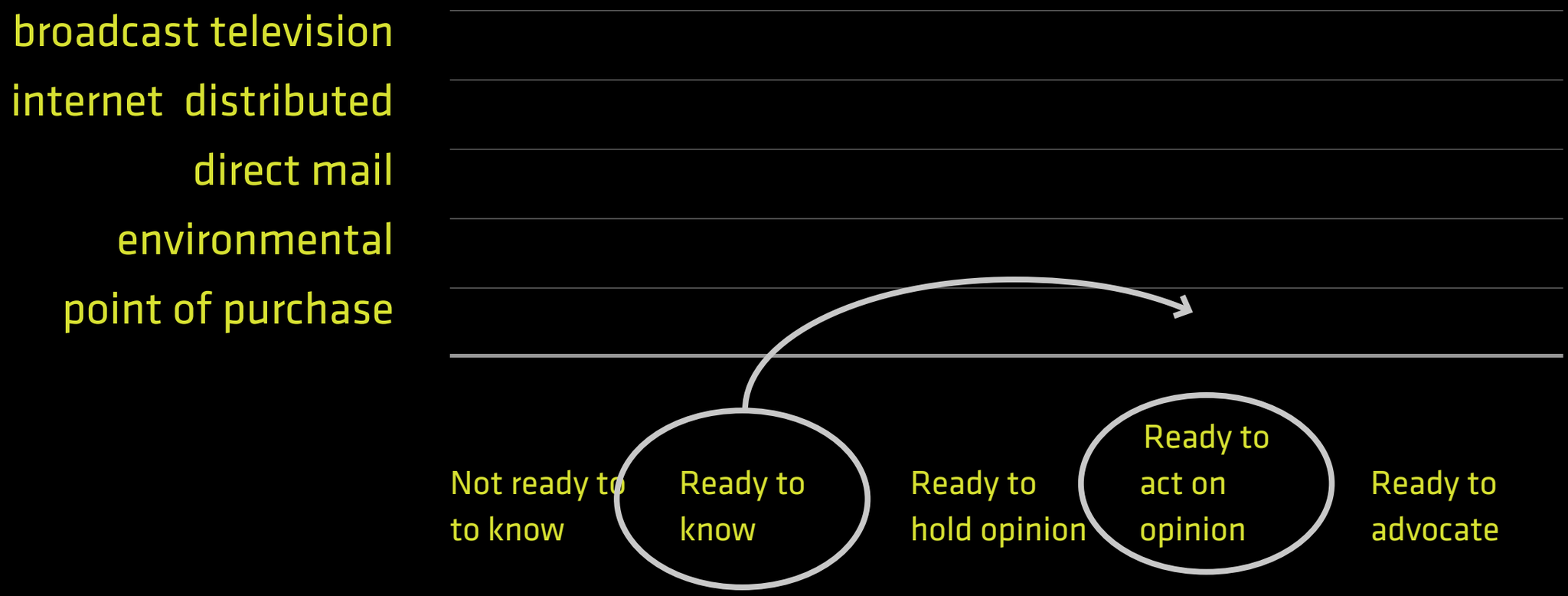
direct mail

environmental

point of purchase

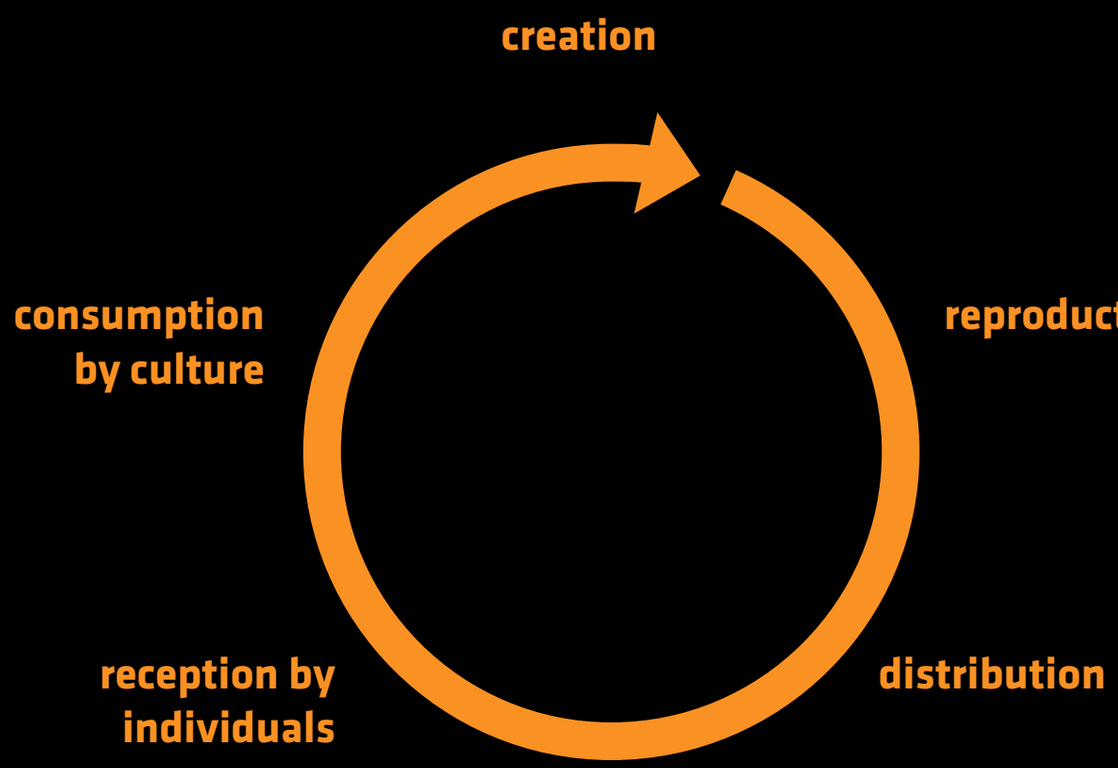
Not ready to to know	Ready to know	Ready to hold opinion	Ready to act on opinion	Ready to advocate

responsiveness



position

on the scope
of designer
responsibility



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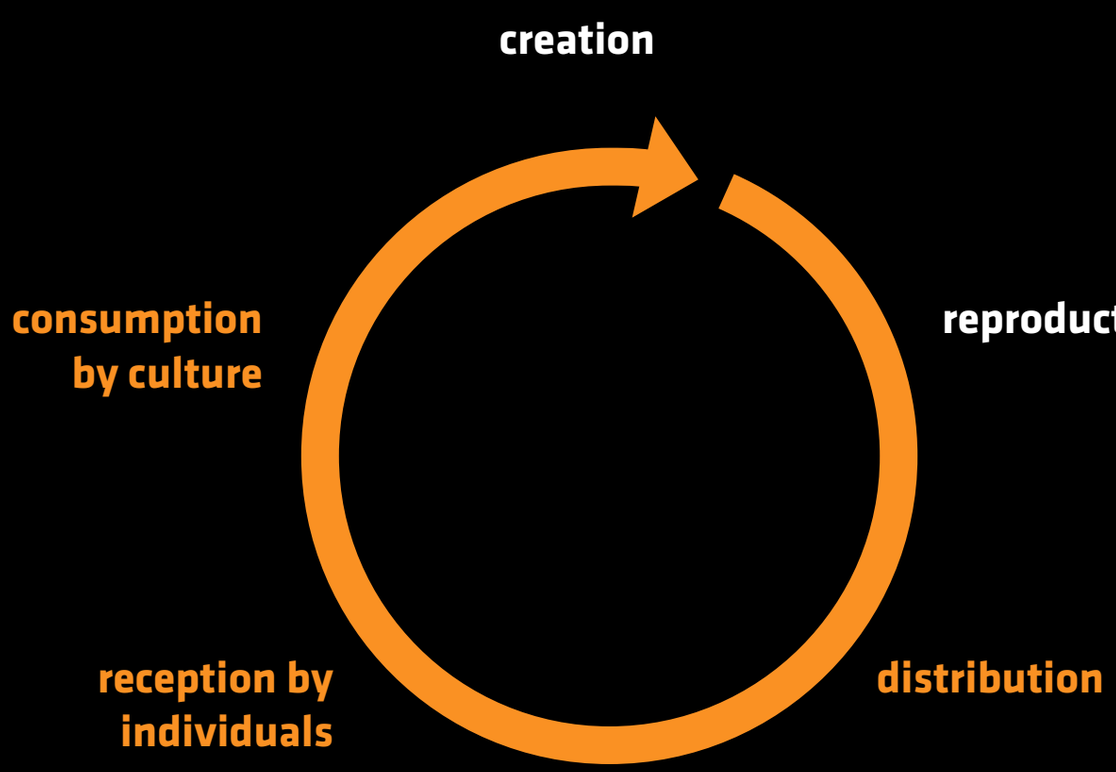


position

on the scope
of user
responsibility

consumer ⇢ **user** ⇢ **participant** ⇢ **co-creator**

integration

making connections

letter
word
sentence
paragraph
page
document

integration

making connections

letter
word
sentence
paragraph
page
document

formal systems
descriptive systems
technological systems
reading systems
language systems

integration

making
connections

Kathleen Meaney,
faculty

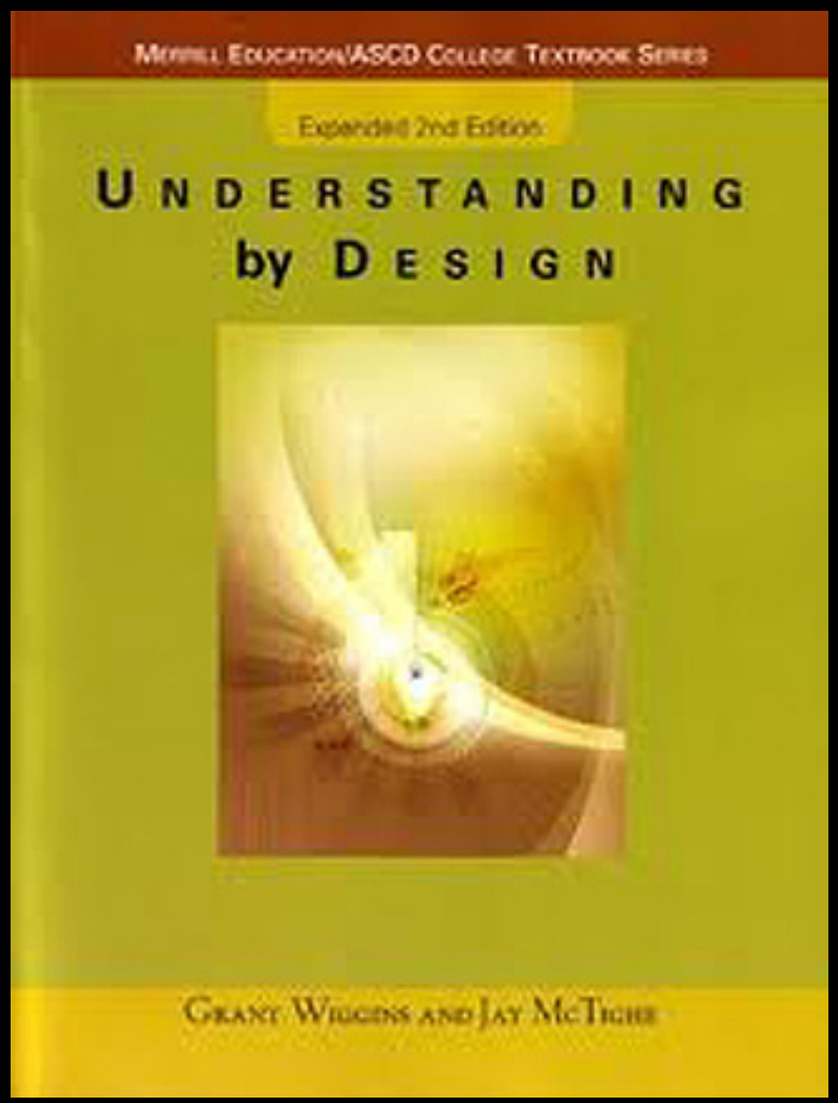
assessment

Evaluation structures

Nature of feedback

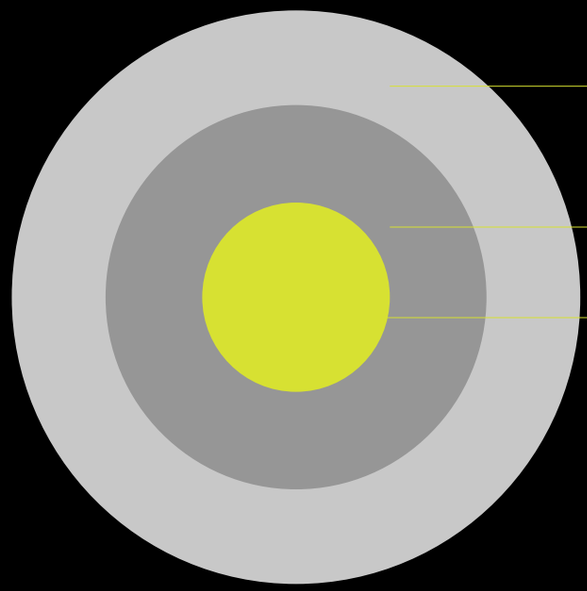
assessment

Grant Wiggins and
Jay McTighe



assessment

what should students know and be able to do?



Things to have seen, heard, read, or otherwise encountered

Skills, theories, and concepts

Enduring understanding:

- Self-awareness
- Empathy
- Holding a perspective
- Applying
- Interpreting
- Explaining

assessment

	qualities of performance	levels of achievement
self-awareness	reflective, self-adjusting	refines over time, debates options, resolves conflict
empathy	perceptive, open	inclusive, sensitive
holding a perspective	credible, revealing	critical, aware of other points of view
applying	effective, efficient, fluent	no need for coaching, innovative
interpreting	meaningful, insightful, illustrative	significant, clear, responsive to context
explaining	accurate, coherent, justified	complete, shows depth

conclusion...

learning experiences are **designed!**