

Turning the Page on Campus Paper Use

Behavioral Solutions for Paper and Printer Reduction

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Root Solutions
from environmental **awareness** to
environmental **action**



Behavior Design Strategy & Training

Bridging the gap between
environmental awareness & action

What we do:

- Intervention Strategy & Implementation
- Training & Capacity Building
 - *Designing for Environmental Action*

Who we work with:

- Universities & Large Orgs
- NGOs
- Government



Presentation Goals

- Better understanding of what Behavior Design is & why it matters
- Learn about **Turning the Page on Campus Paper Use**
- Walk away with **strategies, ideas, and resources** for using **behavioral insights** to implement or improve **paper use** and **printer reduction** campaigns





Why
Behavior
Design?



What is “Behavior Design”?

The science of encouraging action & new behaviors by design:

- Cognitive science
- Conservation psychology
- Behavioral economics
- Social marketing
- Human-centered design, Design thinking



Why Behavior Design?

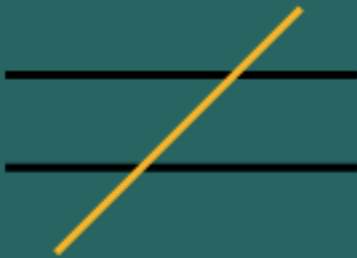
Information Deficit Model

- Info → Awareness → Change
 - Proven not to be true!
- → Haven't used our resources most effectively
 - \$, time, effort put into radio, TV, Web, print, education

Information is insufficient - and can even backfire!)



AWARENESS



BEHAVIOR CHANGE

MANY Determinants of Behavior

Awareness of an issue can encourage behavior, but there are **many other barriers and motivators** of behavior change

Many campaigns fail because they do not address the factors that are the **strongest motivators and barriers** for their audience



Why behavior: failed campaigns

Anti-Drug Campaigns ('98-'04)

Educating and enabling teens to reject drugs

- Spent \$\$\$ - mass media campaign
- Backfire effects
 - Ad exposure → belief marijuana use was prevalent

Social acceptability > awareness of consequences



10 Major Determinants of Behavior

1. Perceived benefits/positive attributes
2. Perceived negative attributes
3. Perceived self ability
4. Perceived action efficacy
5. Perceived severity
6. Perceived social acceptability
7. Perceived access
8. Perceived susceptibility / responsibility
9. Cues
10. Divine will

Turning the Page on Campus Paper Use



Turning the Page on Campus Paper Use

Coach ~10 campuses in U.S. and Canada through our **human-centered design process** for developing a **behavior-based paper reduction campaign**

- Training at AASHE
- Monthly Webinars
- Troubleshooting calls
- 1-1 coaching



Cohort 1 : Target audience and specific behaviors

- Replacing desktop printers with networked printers (MFD/MFP)
- Faculty/students using online learning platforms (Canvas, etc.) instead of printing
- Get International Programs office to move promotional materials online



Cohort 2: Desktop printer reduction

- Focus on desktop printer relinquishment / moving to networked printers
 - Huge potential environmental, financial impacts
 - → Up to 40% cost savings!





HCD: Initiation → Ideation → Design

1. Select specific behavior and target audience
2. Identify Determinants of Behavior
 - Determinants Analysis Survey
3. Choose & Design the Interventions
 - 10 Behavioral Building Blocks
4. Prototype, Pilot
 - Generate & incorporate feedback



What is a determinants analysis?

Survey - Rapid assessment tool

Reveals **significant** differences between the '**doers**' and the '**non-doers**' of the behavior

Identifies why behaviors are (or are not) performed



Why a determinants analysis?

1. Don't assume you know the barriers (and motivators)
 - Over-fishing
 - Walking to a printer
2. Enables you to **select interventions** strategically
 - Opposite of a “shrapnel” approach
3. In a nutshell, interventions should:
 - Remove barriers
 - Amplify benefits



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5. Perceived severity
6. Perceived social acceptability
7. Perceived **access**
8. Perceived susceptibility / responsibility
9. **Memory**
10. Divine will

Choosing and Developing Interventions

- Use “**Determinants to Interventions**” Roadmap
 - map determinants to most relevant interventions
- Almost always includes “**Make it Easy**” and **prompts/cues** (“**Vivid**”)
 - but other interventions vary based on determinants identified
- Narrow in on suite of 3-5 interventions

Behavioral Building Blocks

100's of interventions

- **B**enefits
- **E**asy
- **H**opeful
- **A**ssociations
- **V**ivid
- **I**dentify
- **O**rdinary
- **R**elatable
- **A**wareness
- **L**asting



Examples from our schools



PAPER SAVING TIP #1

Eco fonts:
Century Gothic uses
the least ink,
Garamond uses
the least amount of
paper.



#HaasPaperSavingChallenge



"SAY TREES!"

Take a picture,
save a flyer!



PLACE SCRAP PAPER
BLANK SIDE DOWN



Greening Pacific!
PACIFIC UNIVERSITY

Working together for a sustainable future.

How to be a paper saver

Pause and think: Do I really need to print this?

If yes:

- Use scrap paper for notes
- Ask your professors if you can take notes on an electronic device
- Format documents to use less paper
 - "Condensed fonts", reduce font size
 - Green fonts like Century Gothic
 - Smaller margins
 - Print multiple slides per page
- Use online tools instead of printing
- Check print preview before pressing print!
- Print only the pages you need (avoid printing blank pages or citations, appendices)



Panda.org/savepaper

**Haas students
conserve paper.**



**Take the pledge!
Refrain from printing
lecture notes.**

BerkeleyHaas

Paper Usage Reduction

Goal is 5% reduction over the next six months

REACH	Nov.		80 reams
	Dec.		110 reams
	Jan.		180 reams
	Feb.		130 reams
	Mar.		180 reams
	Apr.		reams

Goal 372 Reams

THE RESULTS ARE IN!

In our first year of the Mailman School's Paper Reduction Initiative,

We've reduced paper consumption by

23%




Let's keep this momentum rolling! Keep an eye out for the launch of the Mailman School's Paper Reduction Challenge starting this fall.



To make people realize that saving the planet starts with them saving paper, we took a standard paper dispenser and made a simple modification with green foil and the silhouette of South America.

This allowed us to prove that the survival of the forest is directly connected to what people consume.

save paper - save the planet 

53,906,609

sheets of paper saved
9,385 miles placed end to end



539,066 pounds
or roughly 270 tons of paper

Resources





Resources

- Case for desktop printer removal
 - with campus case studies

Publications

- Paper interventions guide (early '19)
- *Designing for Environmental Action: A Practitioner's Guide* (Book) – '19

Desktop Printer Determinants Meta-analysis

- Meta-analysis

EPN's Paper Calculator

- v4 Webinar Nov. 14th

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Thank You!



Root
Solutions

Group Discussion

- What specific behaviors might you target / have you targeted?
- Previous successes using behavioral insights? What worked? What didn't?
- Challenges - What do you think may be the barriers to reducing paper/printers on your campus for this audience?
- Brainstorm intervention ideas

