



# Online Learning and Academic Cyberloafing

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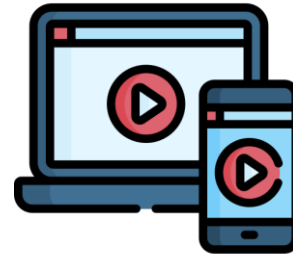
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# Introduction

Purpose, Existing Literature & Research Model

# Cyberloafing

- ▶ **Cyberloafing:** employees' use of company's internet access for personal purposes during working hours (Lim, 2002)
- ▶ **Academic Cyberloafing:** students' use of the internet during class hours for purposes unrelated to the lesson



# Motivation for research

- ▶ **Online learning is becoming the new norm**
  - Even before the pandemic, 83% of school administrators reported increase in demand for online courses, 49% anticipated increase in budget for online programmes
  - 80% of students find distance learning at least as good as, or even better than, face-to-face lessons (Venable, 2020)
- ▶ **Extant literature about academic cyberloafing focuses on its antecedents and negative outcomes**
  - Research on cyberloafing in the workplace associated it with some positive outcomes (Lim & Chen, 2012; Rajah & Lim, 2018; Wu et al., 2020)

# Stressors

## ▶ Environmental Stressor

- Students' home environments may not be conducive for learning
- Physical environment can affect learning (Choi et al., 2014)
- E.g., noise from the surroundings

## ▶ Technological Stressor

- High dependence on technology for online classes
- E.g., lags, inability to access software



# Two types of Cyberloafing

## ▶ Interactive Cyberloafing

- Internet use primarily for social purposes
- E.g., sending text messages, using social media

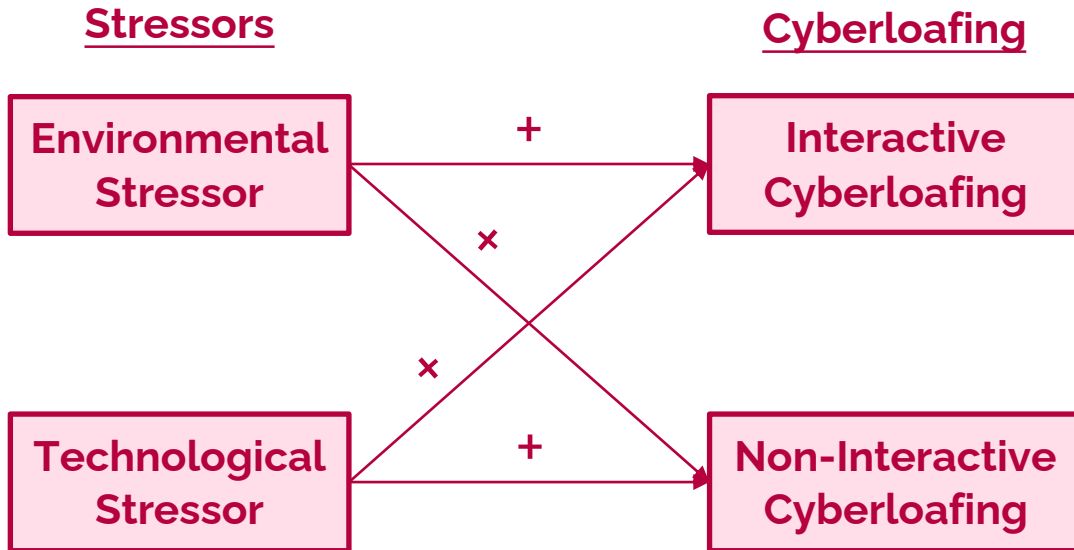


## ▶ Non-interactive Cyberloafing

- Content consumption stemming from non-social motivations
- E.g., reading blogs, pop culture articles



# Stressors & Cyberloafing



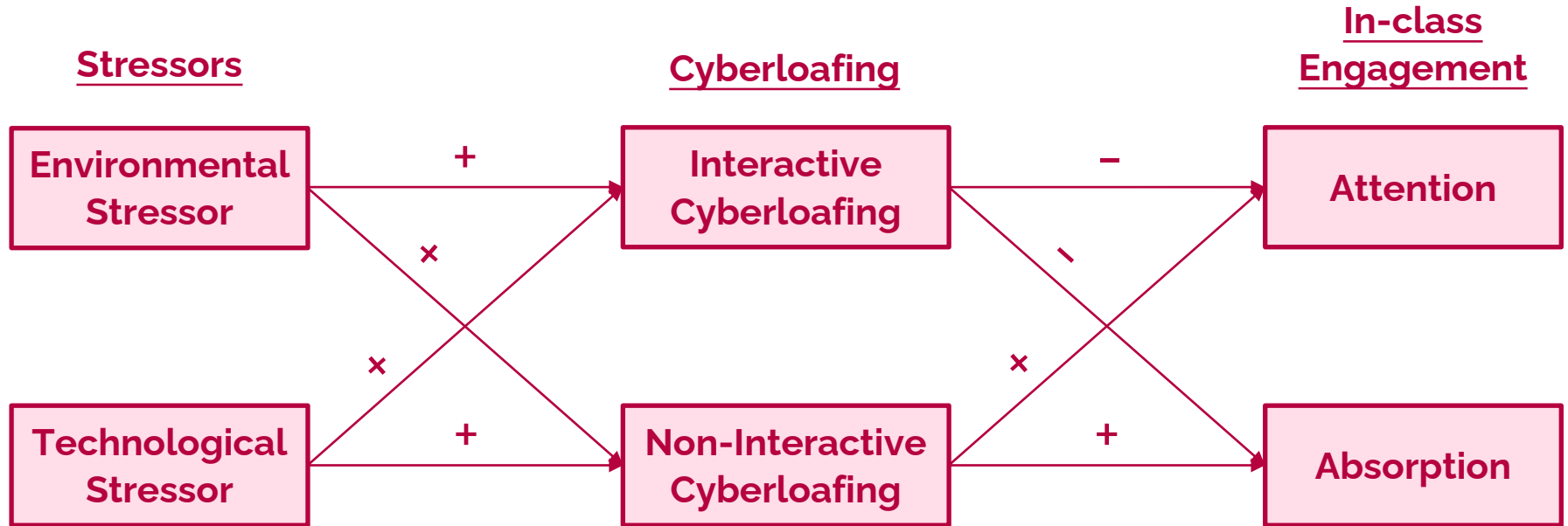
Stress triggers cyberloafing in the workplace (Andel et al., 2019) and in the classroom (Gökçearslan et al., 2018)

# Cyberloafing & Class Engagement

- ▶ **Attention:** cognitive effort exerted by students towards understanding class materials
- ▶ **Absorption:** students' intensity of focus during class
- ▶ **Attention vs Absorption**
  - Absorbed students can tune out all distractions around them
  - Non-absorbed students can be attentive but are also easily distracted
- ▶ Interactive tasks (e.g., conversations) are more cognitively demanding than non-interactive tasks (e.g., mental arithmetic)  
(Horrey & Wickens, 2006; Caird et al., 2018)



# Research Model



# Methodology

Sample & Measures

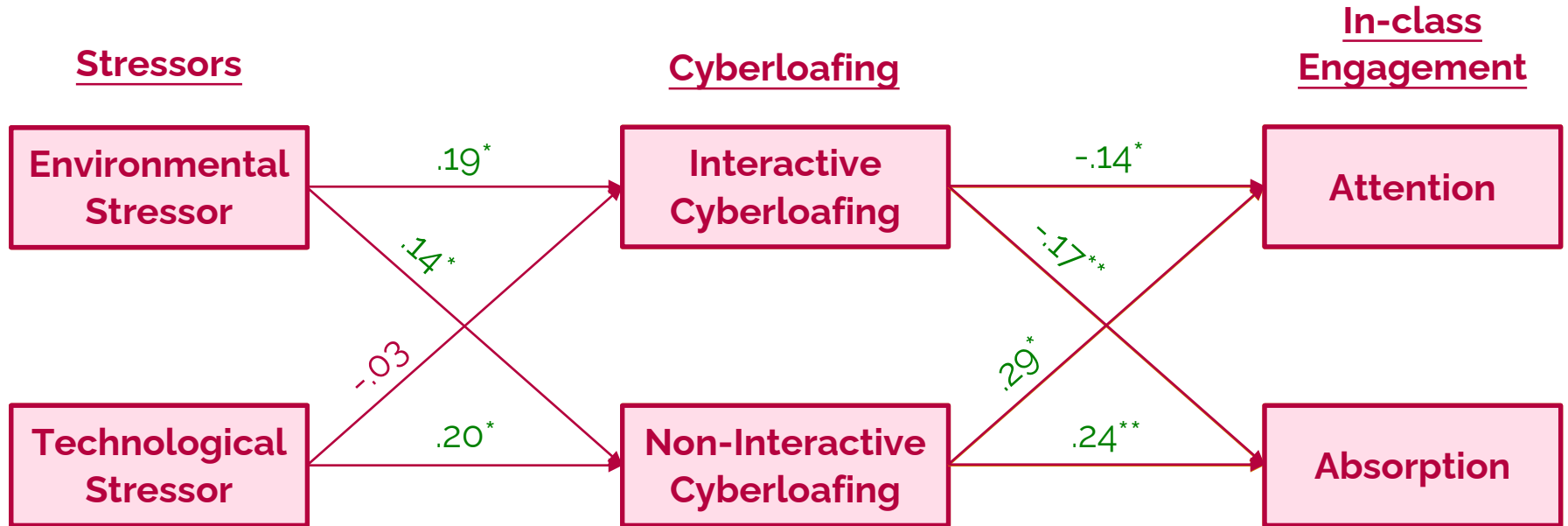
# Sample & Measures

- ▶ **200 undergraduate students**
  - Subject pool: online management course
  - Females: 57.8%
  - Mean age: 20.2 (SD = 1.40)
  - Online survey
  - Received course credit
- ▶ **Environmental & Technological Stressor** (Hill & Epps, 2010)
- ▶ **Interactive & Non-interactive Cyberloafing** (Lim, 2002)
- ▶ Engagement: **Attention & Absorption** (Rothbard, 2001)
- ▶ Control variable: **Internet Skill** (e.g., Baturay & Toker, 2015)

# Results

Hypothesis Testing Results

# Direct Effects



\* $p < .05$ , \*\*  $p < .01$

# Mediating Effects of Cyberloafing

X Environmental Stressor → Interactive Cyberloafing → Attention

✓ Environmental Stressor → Interactive Cyberloafing → Absorption

X Technological Stressor → Interactive Cyberloafing → Attention

X Technological Stressor → Interactive Cyberloafing → Absorption

✓ Environmental Stressor → Non-interactive Cyberloafing → Attention

✓ Environmental Stressor → Non-interactive Cyberloafing → Absorption

✓ Technological Stressor → Non-interactive Cyberloafing → Attention

✓ Technological Stressor → Non-interactive Cyberloafing → Absorption

# Theoretical & Practical Implications

# Theoretical Implications

- ▶ **Examined academic cyberloafing in the context of online learning**
  - Stressors → Cyberloafing
  - Cyberloafing → Engagement
- ▶ **Demonstrated that different types of academic cyberloafing (interactive vs non-interactive) can lead to different outcomes**
  - Not all cyberloafing is bad
  - Some types of cyberloafing can help increase student engagement after they face stress



# Practical Implications



## Reducing stress

### **For students:**

- ▷ Declutter space to reduce distractions
- ▷ Find a quiet space where others will not distract you
- ▷ Troubleshoot recurring technology problems

### **For school administrators:**

- ▷ Provide a conducive space for select students with poor home environments
- ▷ Loan technological devices (e.g., audio equipment) to students

# Practical Implications



## Increasing engagement

### **For students:**

- ▷ Steer clear of interactive cyberloafing activities
- ▷ Put away phones, log out of social media accounts, close instant messaging and email applications

### **For instructors:**

- ▷ Remind students not to use instant messaging applications
- ▷ Provide breaks during long classes

### **For schools:**

- ▷ Prevent access to social media via school Wi-Fi

# Future Directions

- ▶ **Use browser monitoring software, eye trackers to supplement self-report data on cyberloafing**
- ▶ **Conduct similar studies in different contexts**
  - Cultural contexts
  - Age groups
- ▶ **Examine different types of cyberloafing** (interactive vs non-interactive) **in face-to-face classes**



# Thank you!

Image credits: Freepik