



Demystifying Research



Icebreaker!

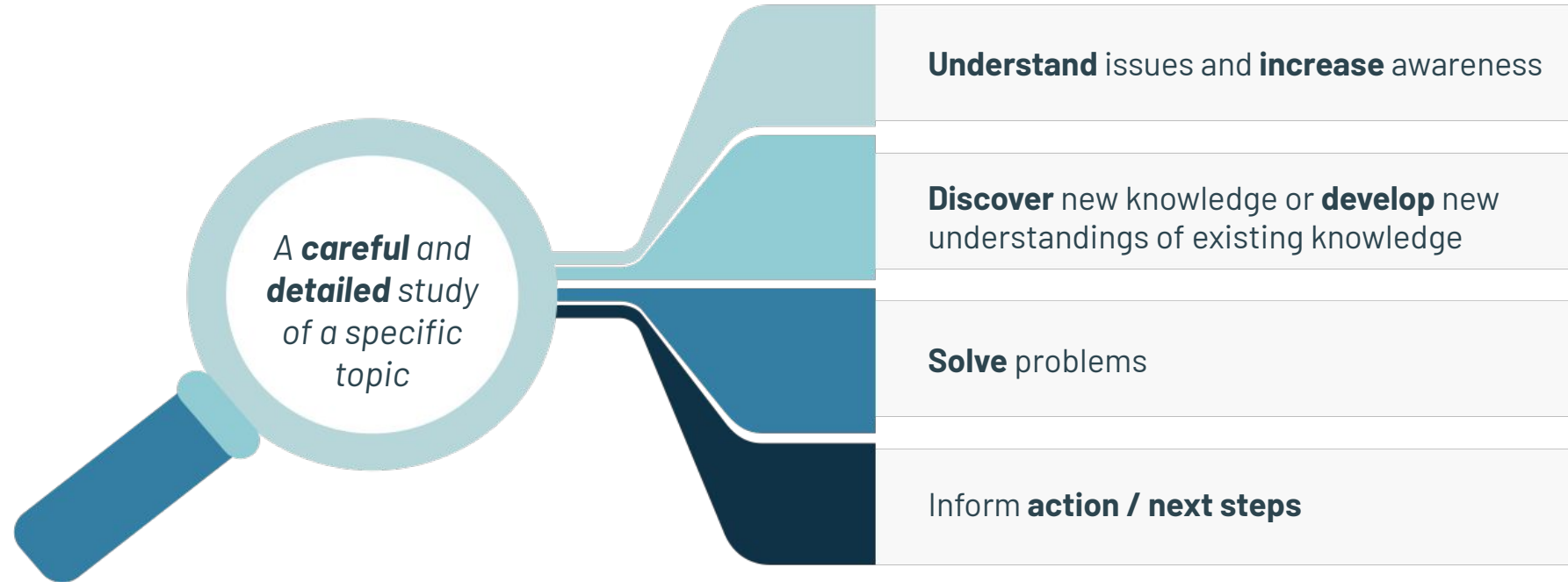
If you could know the answer to any **unsolved question or mystery**, what would it be?

WHAT IS RESEARCH?





What is Research? Why Do It?





What Do Researchers Do?

- Investigate **new topics** or build on **existing knowledge**
- Includes:
 - Reading literary work ([Feedly](#))
 - Conducting interviews
 - Creating products or models to complete tasks
 - Benchwork
- Applications are **limitless!**



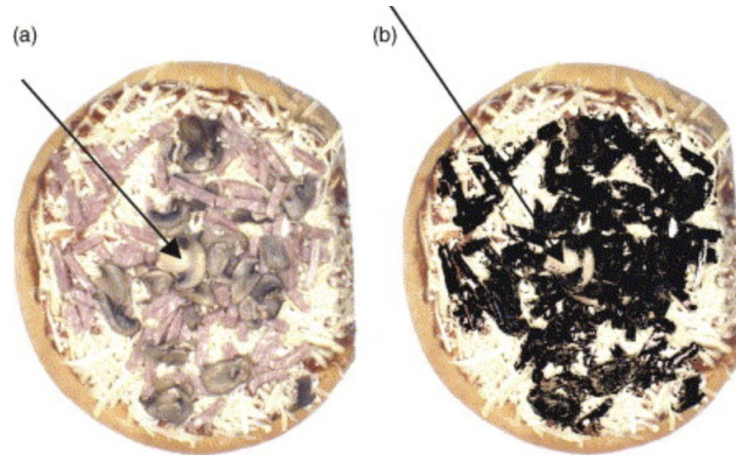
The Scientific Method

- ▶ **Systematic, standardized** approach
- ▶ Allows for:
 - ▷ Replication
 - ▷ Greater sense of confidence in findings



Computer Vision and Pizza Toppings

“The indexes used for the analysis of the twenty-five samples examined included ham area percentage, mushroom area percentage and topping area percentage (TAP). A **fuzzy logic system was then developed and used to classify the pizza topping quality**, in comparison with quality personnel assessment.”



[Download](#) : [Download full-size image](#)

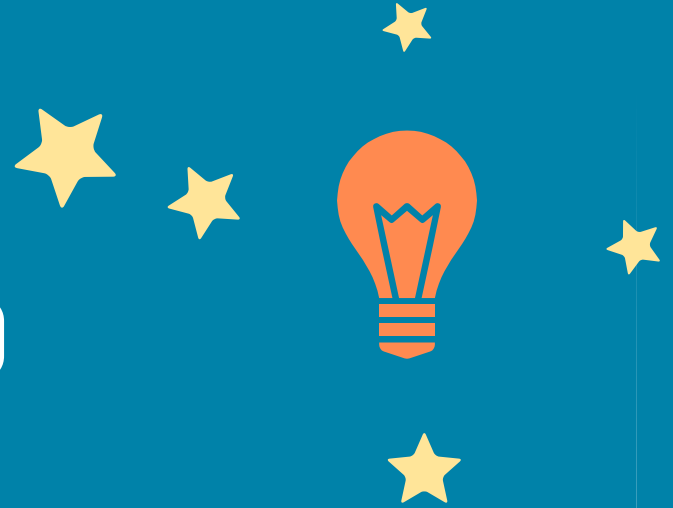
Fig. 2. Sample where edge detection was required for segmentation. (a) Original image, (b) sample showing mushroom piece which was not segmented by HSI model.

Superman vs. Nick O'Teen in Anti-smoking Campaigns in 1980s Britain



"This article examines the design, production, delivery and reception of the Superman vs. Nick O'Teen campaign in order to **probe the multifaceted nature of the making of healthy publics in 1980s Britain.**"

GETTING INVOLVED





Who Does Research?

- People in **all** fields
- Research teams with people of **varying** levels of experience
- **Don't** need experience to get involved



How to Find Opportunities



**Structured
research
programs**

**"Cold call"
emails**

Networking

**Independent
research!**

Searching for Opportunities

http://ure.uic.edu/for_students.php

<https://undergradresearch.northwestern.edu/overview/>



Getting Started in Research: Emails

In your emails:



Introduce yourself and your background



Talk about why you're interested in their research



Ask to set up a meeting to learn more

Have your CV/resume ready in case they ask for it!

Sample Email

Hello,

I hope this email finds you well.

My name is ____, and I am a rising ____ at ____ high school.

As I came across the Neuro-Rehab Lab's website, I was intrigued by the intersection of neurology and clinical health policy the team is studying through their work. In particular, I found the paper on ____ interesting and was curious about how technology could be integrated in the brains of patients experiencing neurodegenerative diseases as a potential cure.

As an aspiring pre-medical student, this lies at the core of my passions, and I was interested in getting involved with any existing projects or research. At school, I have taken ____, preparing me with a foundation in basic laboratory biology and chemistry. I hope to expand on this experience and engage in more rigorous material through a research position.

Thank you for taking the time to read my email. I look forward to hearing from you.

Regards,



Introduction



Purpose and inspiration; all about attention to details



Experience (if applicable) or what you hope to get out of this opportunity!



Make sure to say thank you :).

If you attach your resume, make a note of it in the email (e.g.: "I've attached my resume below outlining some of my relevant experiences, as well.")

Oh, and don't forget your name!

Reflection

1. If you could conduct research on any topic, what would it be?
2. Do you see yourself doing research in the future?

Thank you!

**Stick around if you have
questions or want to learn
more about getting
involved with research!**

