

How to Give a Great Research Talk ?

An aerial photograph of a coastal area. A long, narrow strip of land, possibly a peninsula or a large island, is visible. The land is covered in dense green forest. A wide, sandy beach runs along the left side of the land, meeting the ocean. The water is a deep blue, and the sky is a lighter blue with some clouds. The overall scene is a beautiful coastal landscape.

Gilles Bailly

RJC 2015

Sources

Krumm, J., Baudisch, P., Czerwinski, M, and Szeliski, R.

How to Give a Great Research Talk.

Internal presentation at Microsoft Research 2007

<http://research.microsoft.com/apps/video/dl.aspx?id=103946&l=i>

Simon Peyton Jones

How to give a great research talk

<http://wit.tuwien.ac.at/events/peyton-jones/Giving%20%20talk.pdf>

Nancy Duarte

Slide:ology

The art and science of creating great presentations

www.oreilly.com

<http://research.microsoft.com/en-us/um/people/simonpj/papers/giving-a-talk/giving-a-talk.htm>

<http://sixminutes.dlugan.com/assertion-evidence-design-presentation-slides/>

Don't need natural talent.

Time and practice



Outline

Why?

What?

How?

Slide by slide

Why to Give a Great Research Talk?

Why?

Why to give a talk?

- The greatest ideas are worthless if you keep them for yourself

Why?

Why to give a **GREAT** research talk?

- It is not very difficult

Many research talks are poor ...

... and quite **simple** things ...

... can make **your** talks much better.



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[PDF version of the full program is available](#)

15 April 2015

[ACM's official press release](#)

4 April 2015

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Authors | Guide to a Successful Presentation

Standard Technical Support

- Projector with resolution up to 1024 x 768
- Projection screen
- VGA connection
- Audio input to room speakers
- Podium microphone

Additional Information

This information is reprinted in part from the IUI conference series.

Please see these examples of:

- [A example GOOD presentation slide deck \(.ppt, 169 KB\)](#)
- [A example BAD presentation slide deck \(.ppt, 405 KB\)](#)

Checking Content Appropriateness

DON'T give a presentation that will be comprehensible and interesting only to people who work in the same area as you. Please be aware that CHI is a multidisciplinary conference, with researchers and practitioners in attendance.

DO ensure that even people who have little familiarity with your sub-area of HCI can understand at least the main points:

- what questions you addressed,
- why they're important,
- what methods you used (not necessarily the details),
- what your main results were, and
- why they are interesting.

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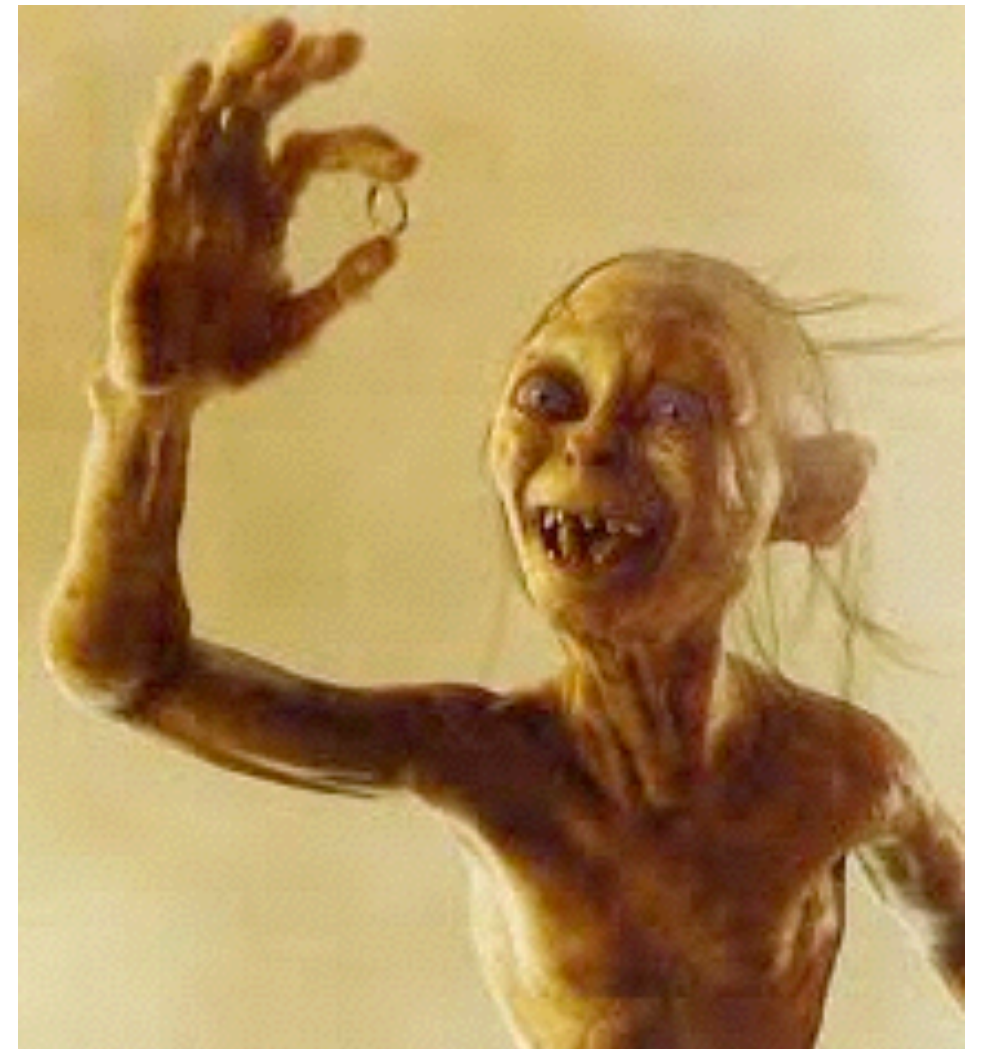
Why?

Benefits

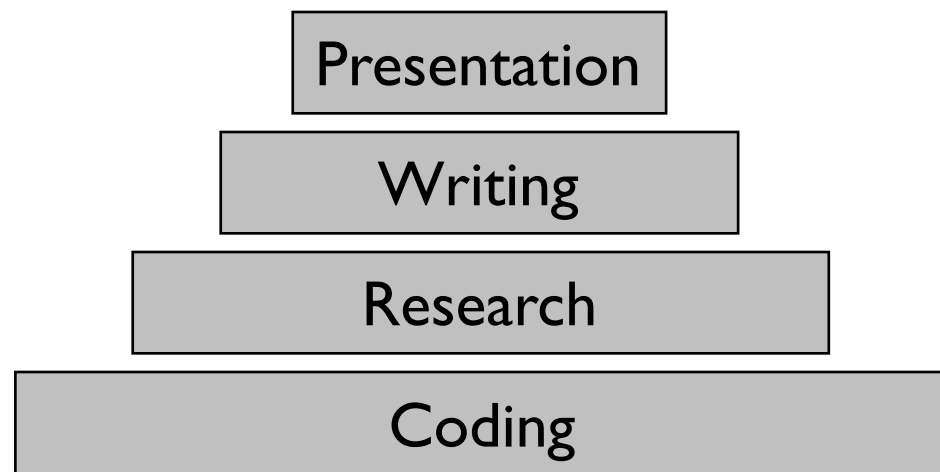
- Your audience is happier
- Your are promoted

Time and attention of other people

- It is precious
- Do not waste it!

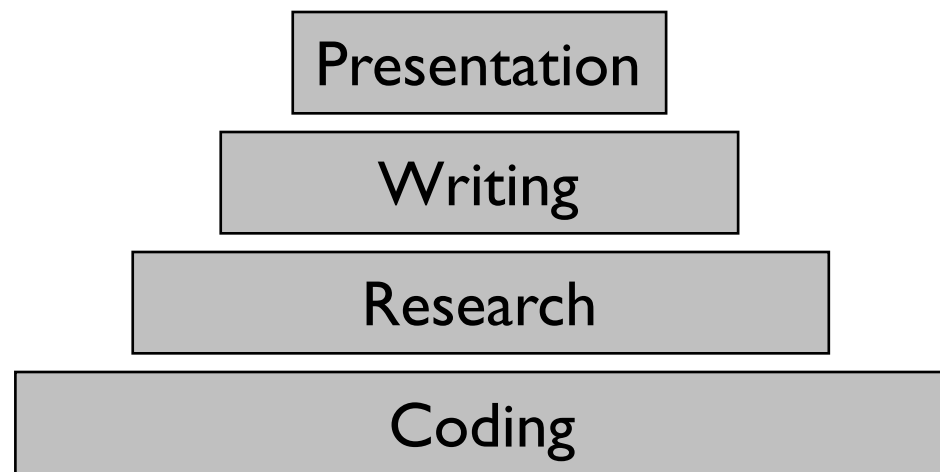


Why?

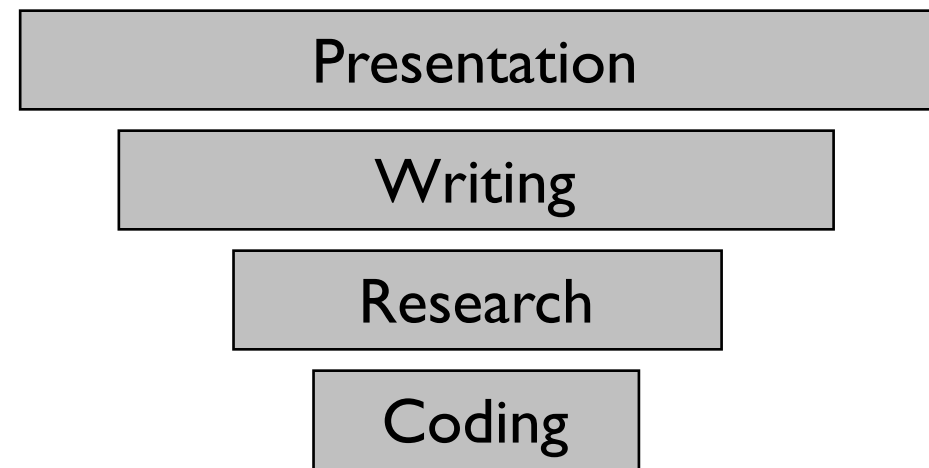


Effort

Why?



Effort



Impact

Outline

Why?

What?

How?

Slide by slide

What is a Research Talk?



Conference Talk

University

V.S



Job Talk



The goal of your talk **IS**

- To convince you've got something great
- To give Intuitive feel for your idea
- To make them glad they came

Conference Talk

Why are you the right candidate?



University



Job Talk



Conference Talk

University

v.s

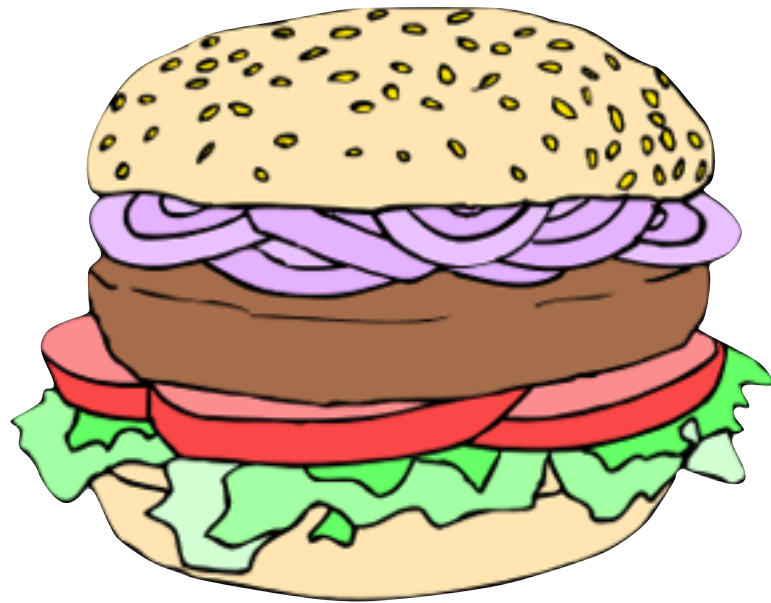


Job Talk

It is not
the same
exercise!

What to Say?

What?



Your paper



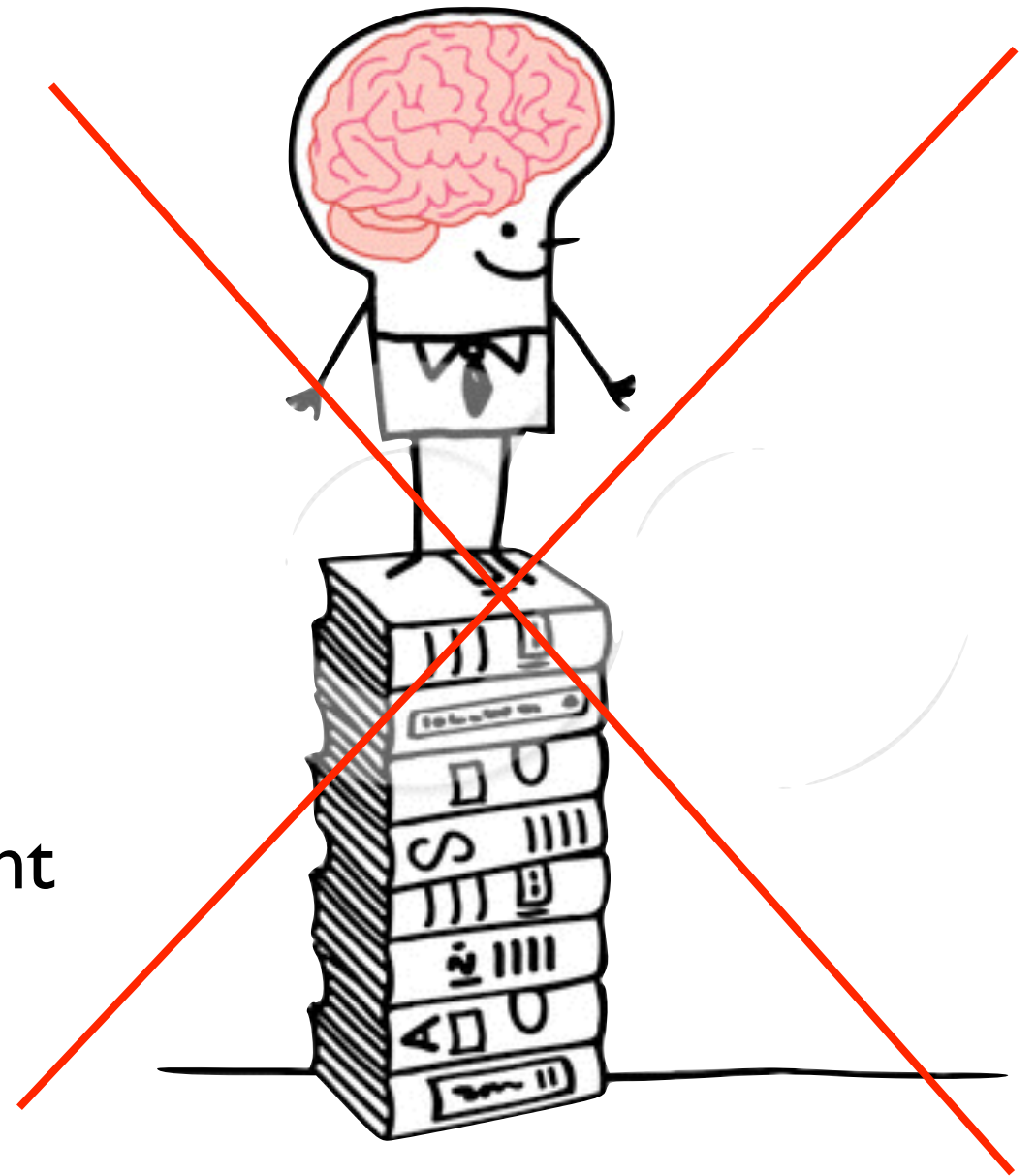
Your Talk

Do not confuse the two!

What?

The goal of your talk is **not**

- To impress your audience
- To tell them all you know
- To present technical details
- To teach them how to implement



What?

The goal of your talk **IS**

- To convince you've got something great
- To give Intuitive feel for your idea
- To make them glad they came



Success if you get them to read the paper for details

Audience



Idealized audience

- Have read all your earlier paper
- Understand every thing quickly
- Are fresh, alert, ready for action

Audience



Idealized audience

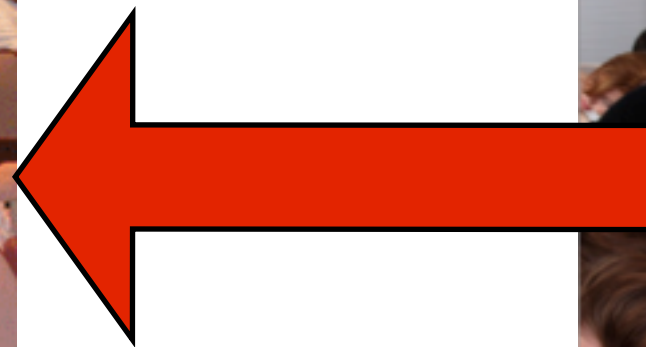
- Have read all your earlier paper
- Understand every thing quickly
- Are fresh, alert, ready for action



Actual audience

- Have never heard of you
- Do not know your topic
- Have just had lunch and are ready for a doze

Audience



Your mission

Wake up them

And make them glad they did

What?

1
2
3

What?

1 Motivation

2

3

What?

- 1 Motivation
- 2 Key idea
- 3

What?

- 1 Motivation (20%)
- 2 Key idea (80%)
- 3 There is no 3

What?

2 minutes before they start to doze

Motivations

- What is the problem?
- Why is it an important and interesting problem?
(audience will be distracted by guessing otherwise)
- Why your solution is better

What?

Key idea

- Identify the key idea
- Be specific
- Absolutely specific
- Nothing else

If the audience remembers only **one** thing of your talk,
what should it be?

How to Say It Well?

Creating slides



5 principles

1. Tell the truth
2. Get to the point
3. Pick the right tool for the job
4. Highlight what's important
5. Keep it simple

Text



Reduce Text

- Reading and listening is very difficult (distraction)
- Focus on the presenter
- Slides reinforce the content
- > 75 words == Document
- > 40 words == Teleprompter
- ≤ 7 words == Presentation

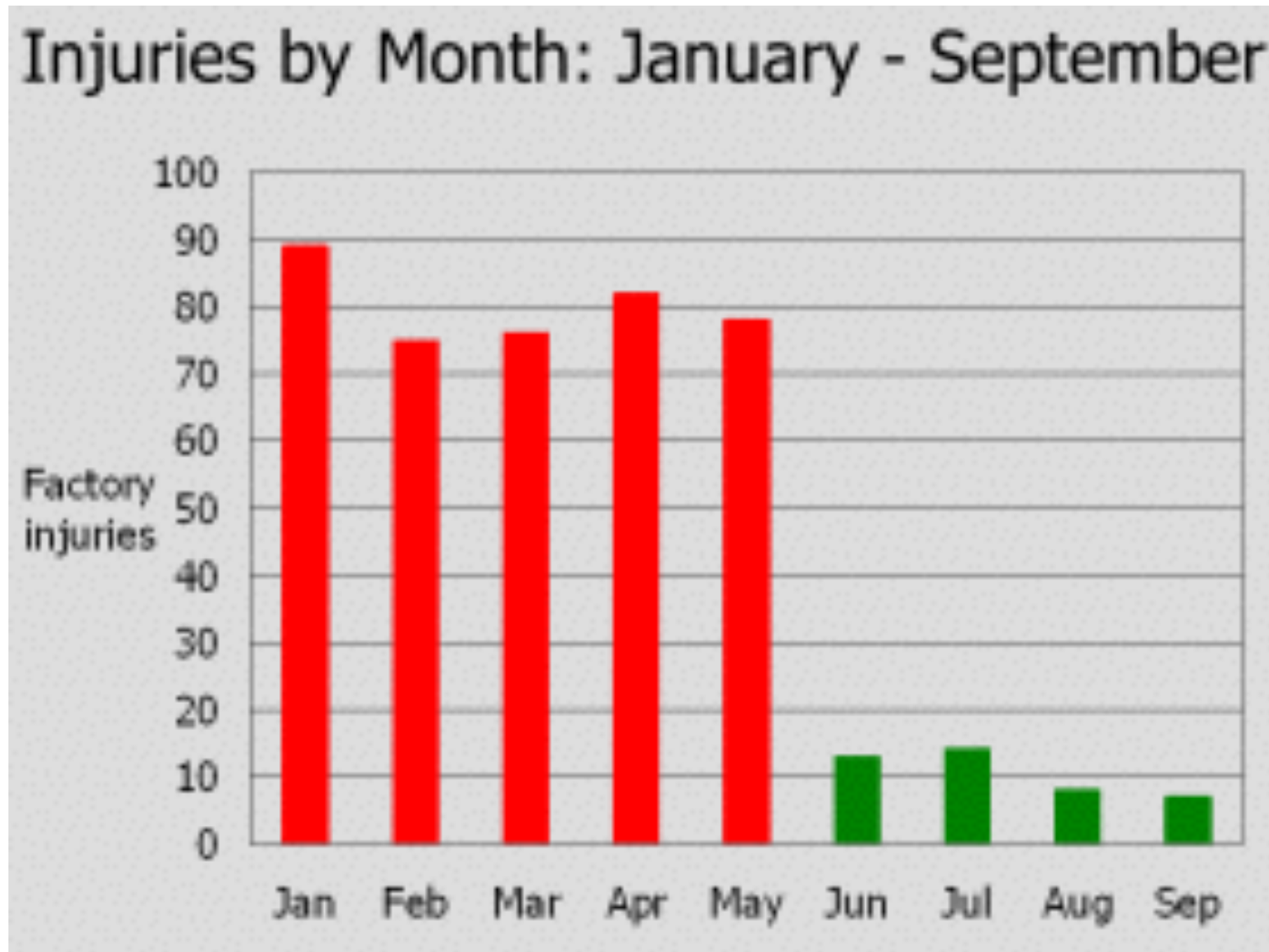


Text

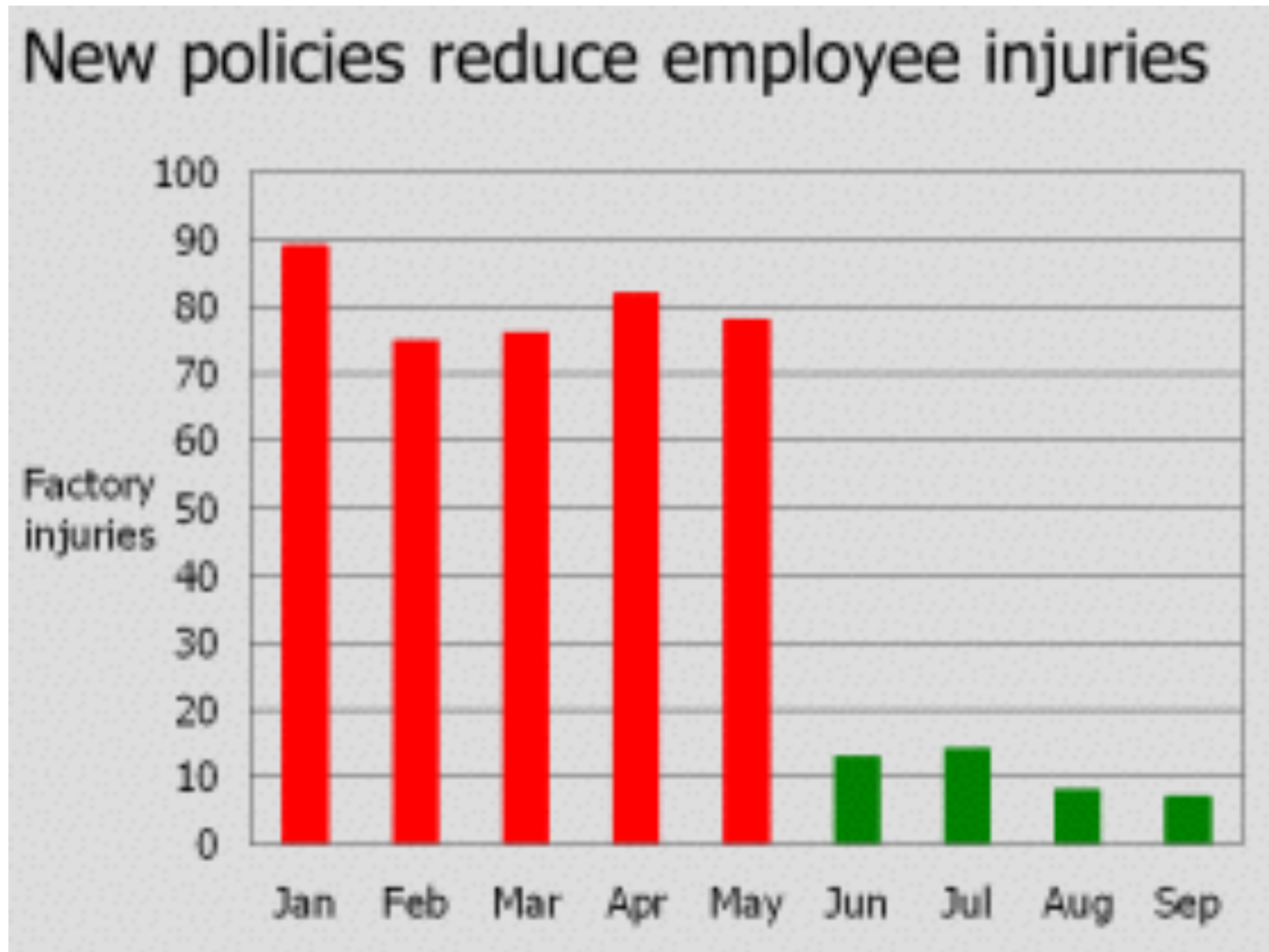
Reduce Text

- Highlight only keyword per bullet point
- Practice delivering those slides, but only focus on the highlighted keyword
- Remove all the words except the keyword
- Replace the word with an image (when possible)

Slide Title Guidelines: Use Assertions, Not Topics

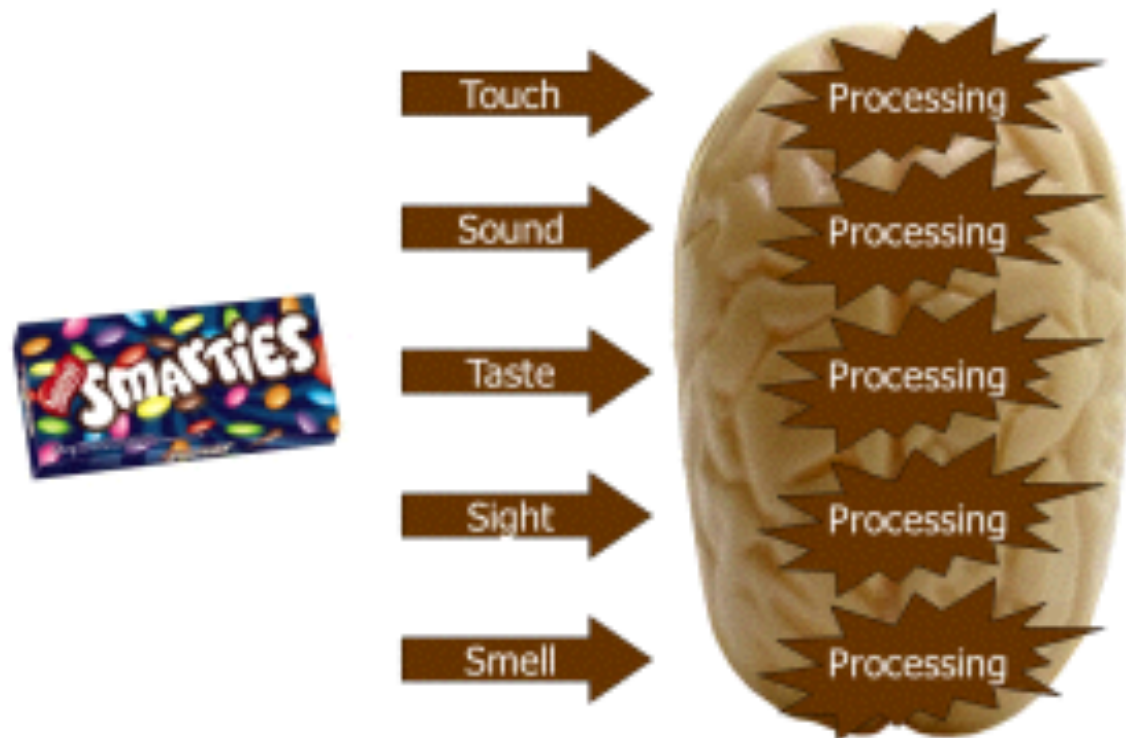


Slide Title Guidelines: Use Assertions, Not Topics

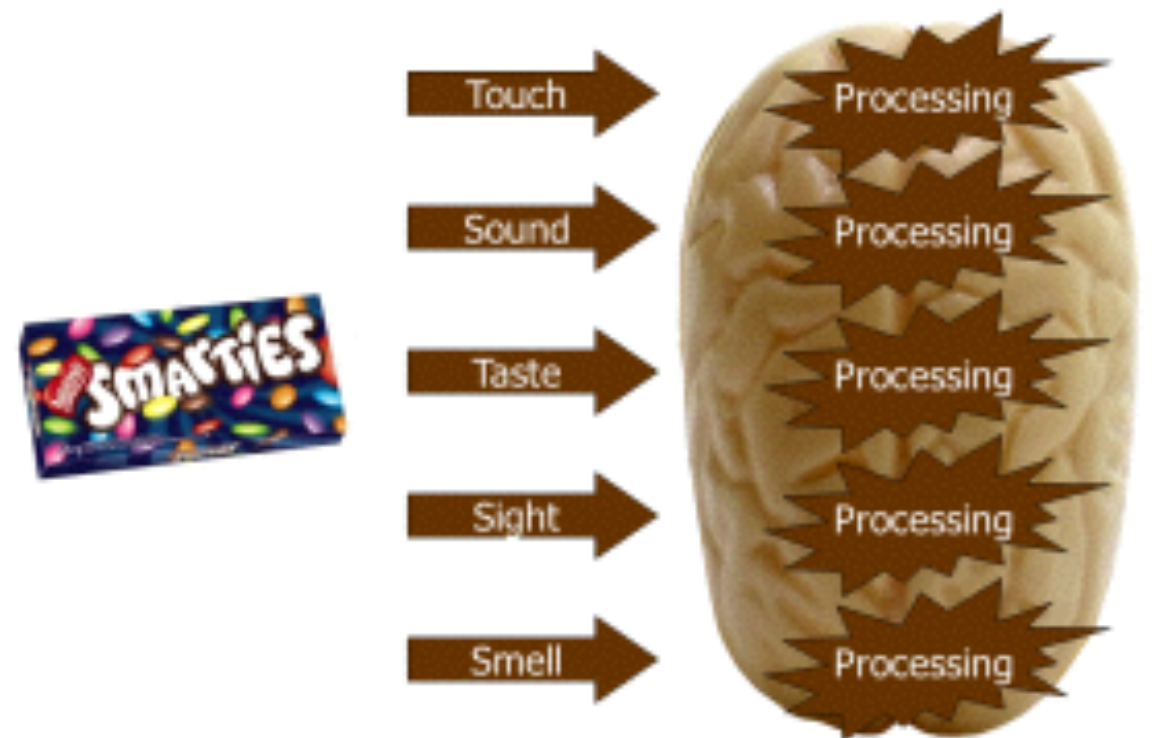


Slide Title Guidelines: Use Assertions, Not Topics

Sensory Perceptions



Stimuli are perceived, then processed



Slide Title Guidelines: Use Assertions, Not Topics

Text Size on Slides

1	Z S H C	44
2	C P 1 4 0	40
3	H S K R N I	36
4	C H K R V D	32
5	H O N S D C V	28
6	O K H D N R C S	24
7	V H D N K U O S R C	20
8	N A G U L D W E R D N A	18
9	B D C L Z W V Y I H S R O A	16
10	A R E Y O U R E Y E S S O R E Y E T	14
11	T H I S I S W A Y W A Y T O O S M A L L	12
12	A T T H I S P O I N T Y O U A R E B E I N G S I L L Y	10
13	F O N T S E C U S E D I N H D A G A R T E R L Y R E V I E W	8
14	P R O P O S E R U S I N G T E X T S I Z E S T O O S M A L L F O R S L I D E S	6

Make text large enough to read

1	Z S H C	44
2	C P 1 4 0	40
3	H S K R N I	36
4	C H K R V D	32
5	H O N S D C V	28
6	O K H D N R C S	24
7	V H D N K U O S R C	20
8	N A G U L D W E R D N A	18
9	B D C L Z W V Y I H S R O A	16
10	A R E Y O U R E Y E S S O R E Y E T	14
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12	A T T H I S P O I N T Y O U A R E B E I N G S I L L Y	10
13	F O N T S E C U S E D I N H D A G A R T E R L Y R E V I E W	8
14	P R O P O S E R U S I N G T E X T S I Z E S T O O S M A L L F O R S L I D E S	6

Humor



Visual Talk

Focus attention

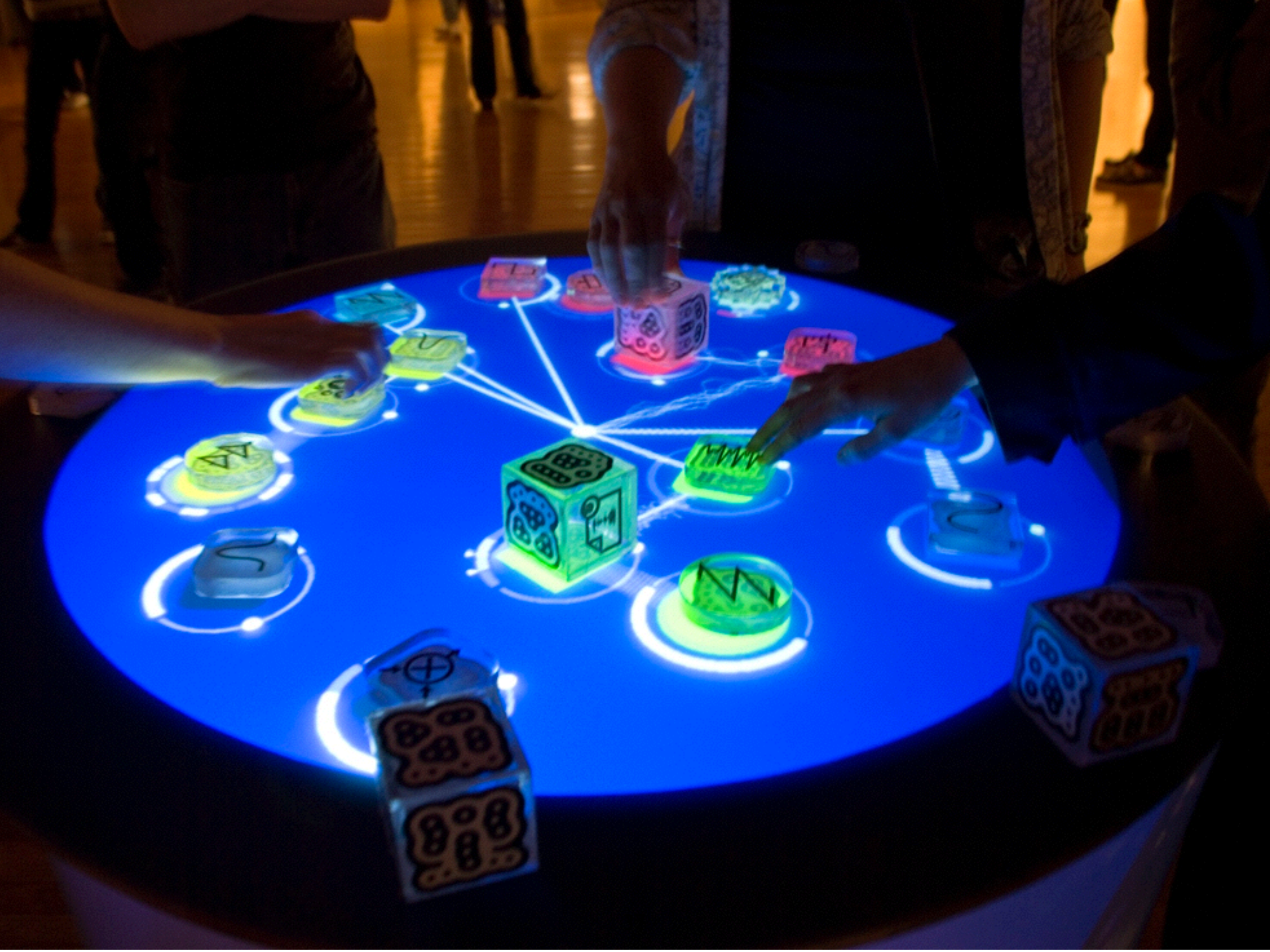
Show, do not tell!

Visual Talk



Visual Talk







Visual Talk

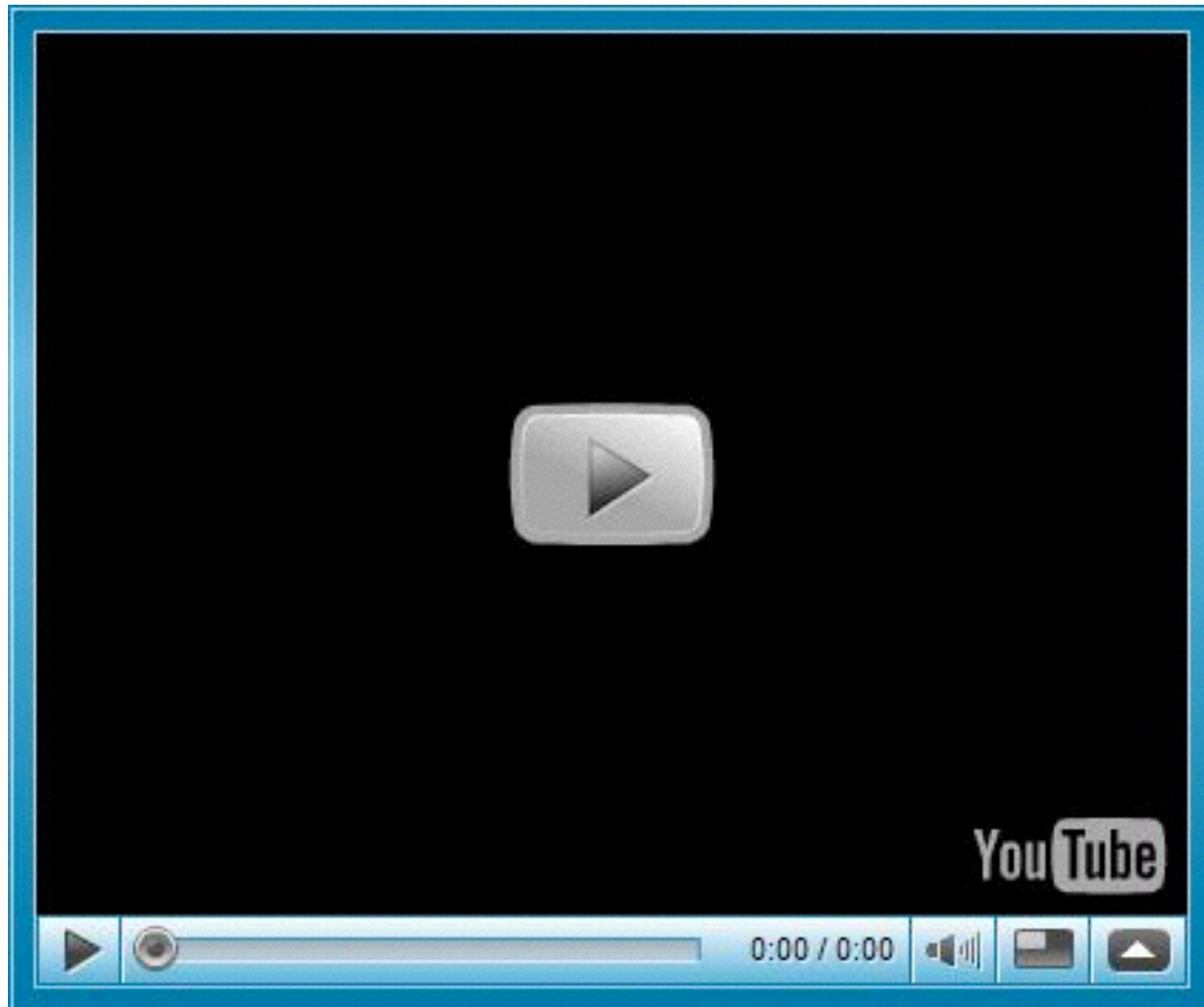
Diagrams





Remove everything
that is not useful

Visual Talk



Visual Talk



Examples

Main weapon

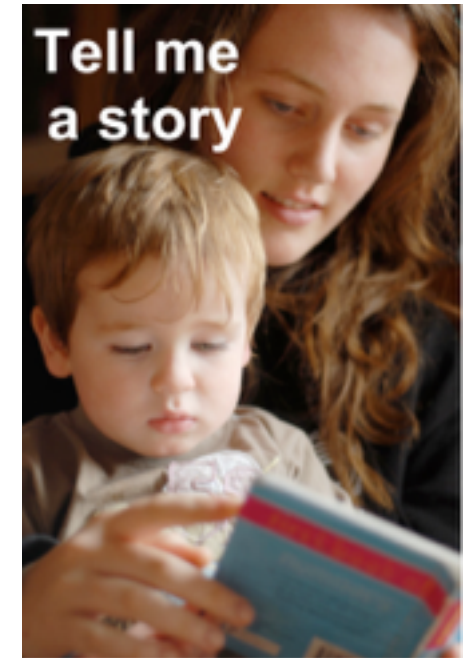
- To motivate the work
- To convey the basic intuition
- To illustrate the **Idea** in action
- To show extreme cases
- To highlight shortcomings

When the time is short, omit the general case,
not the example

What?

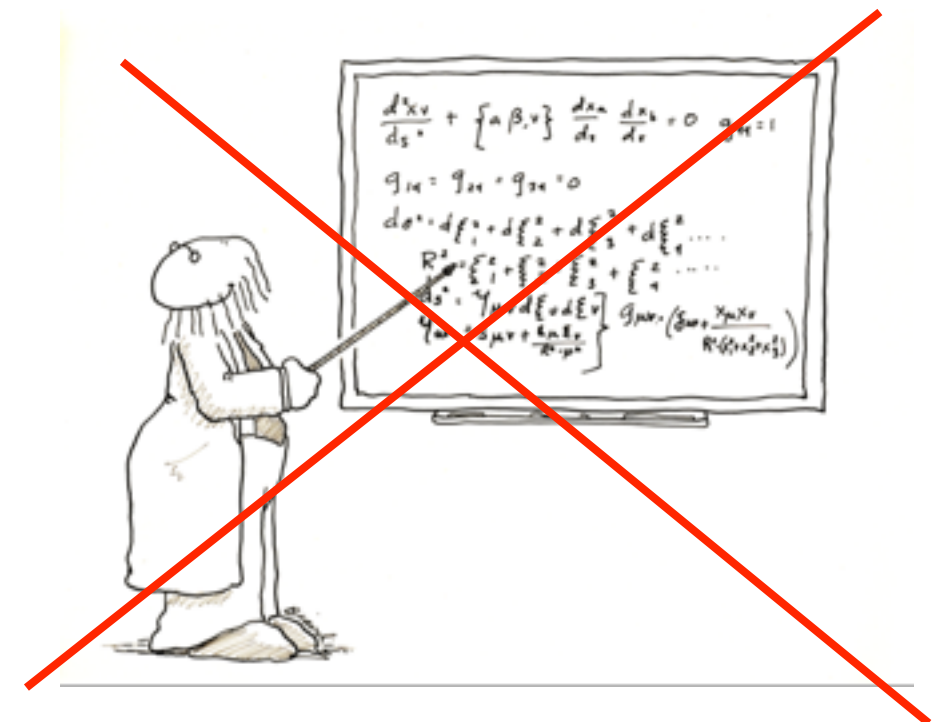
Tell a story

- Stories get attention



No equation

- Flash up some math just to show you have it



Contrast: Identifying the Main Point Quickly

Size

Shape

Shade

Color

Proximity

Design (1/2)

Simple Background

- Backgrounds should never compete with the content
- Light Background

Color

- Using the color wheel
- Using a template

The Worst Slide Deck Ever

Joshua B. Gross, BA, MS

PhD Candidate, Expected Graduation May, 2008

311B IST Building

College of Information Sciences and Technology

The Pennsylvania State University

University Park, PA 16802

Phone: (814) 865-3859

Fax: (814) 863-1122

Email: jgross@ist.psu.edu

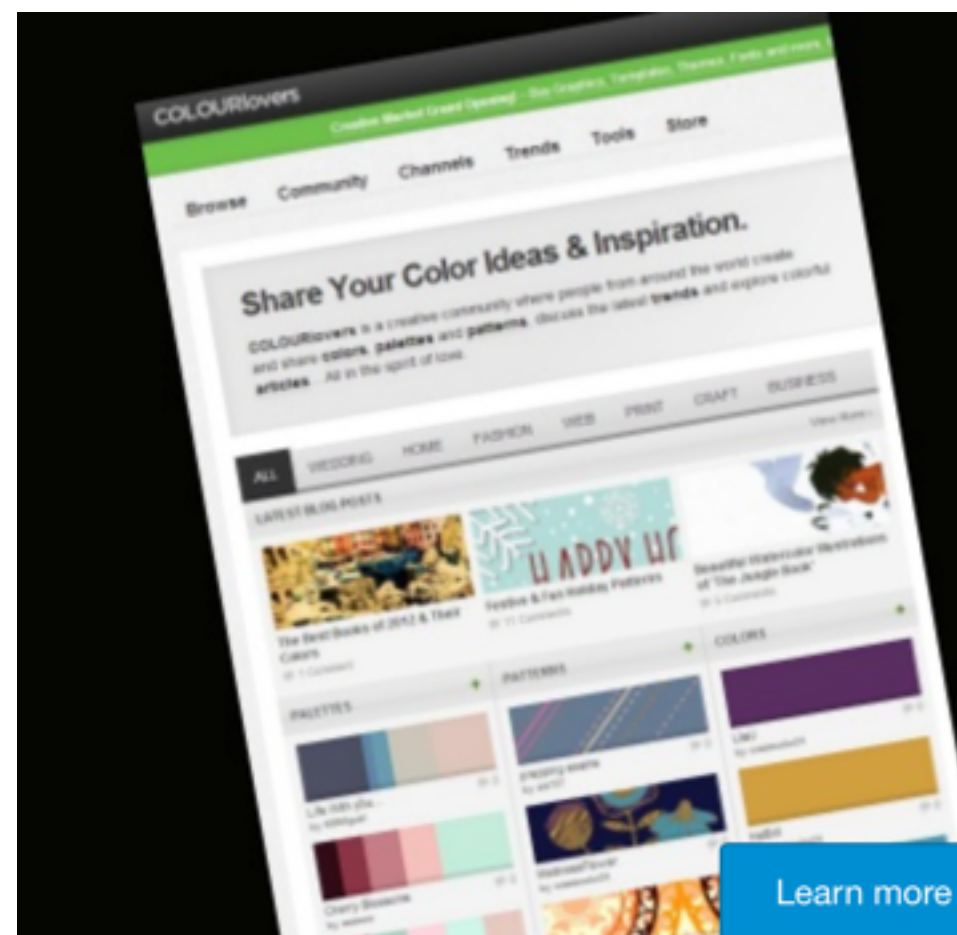
Web: <http://hci.ist.psu.edu/~jgross>



COLOR SCHEME DESIGNER

let's you easily create your own palettes

[Learn more](#)



COLOUR LOVERS

has loads of colour ideas

[Learn more](#)

Design (2/2)

Font

- Sans serif type
- Only one font
- 66% size
- Back of the room
- Oldest age / 2
- Do not go smaller than 28



Bullets

- Bullet kill people
- Use them sparingly



Animations

Do not use them (or very sparingly)

Animation is wrong when:

- Unnatural or counterintuitive
- It does not add value to the content
- It distracts the audience from the presenter

Rehearsal



Rehearsal

Spend enough time in preparing

- more than once

Time yourself

Use videos

Rehearse in front of friendly audiences

Get feedbacks

Checking

1 day



Materials

- Test that your laptop works with the projector (some parts of the slides are sometimes truncated)
- Copies of your slides on another laptop on a USB stick on a web server
- Borrow a laser pointer, but avoid using it
- Borrow a wireless slide changer



Stress Management

1 minute

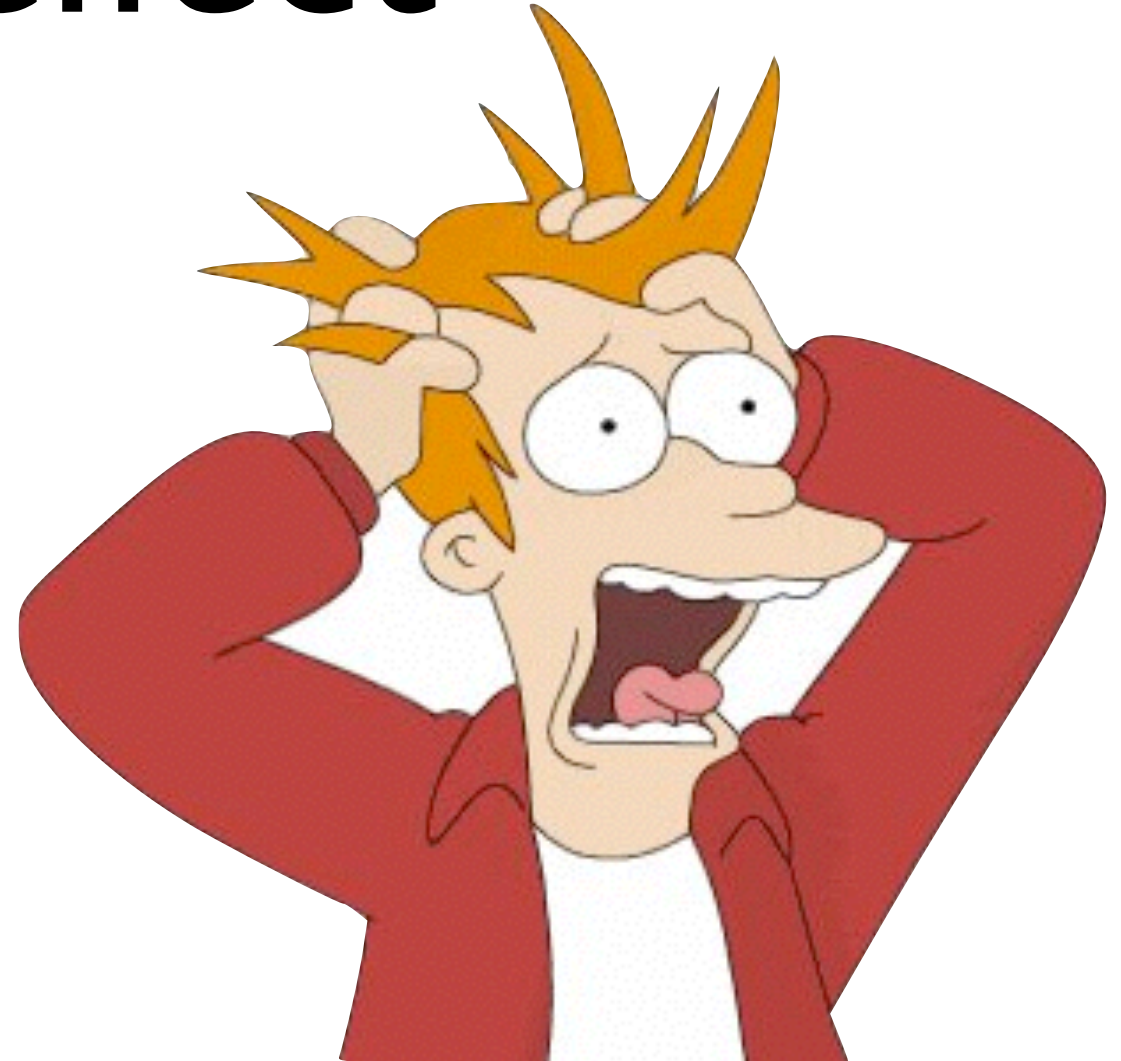


Jelly effect

Inability to breath

Inability to stand up

Inability to operate brain



You are not a wimp
Everyone feels this way

Solutions

Deep breathing during previous talks

Script your first sentences precisely
(No brain required)

Move around a lot

- Use large gestures,
- Wave your arms,
- Stand on chairs

Go to the bathroom



Presentation



Enthusiasm

- If you do not seem excited by your idea, why should the audience be?
- It wakes them up
- It makes people dramatically more receptive
- It gets you loosened up, breathing, moving around.



Do not apologize

- “I did not have time to prepare this talk properly”
- “My computer broke down, So ...
... I did not have the results I expected”
- “I do not have time to tell you about this”
- “I do not feel qualified to address this audience”

Posture / Gesture

- Always face the audience
- Don't look or point at screen
- Glance at laptop, use mouse
- Compensate for distractions/inattention
(Focus attention, Repetition is OK)
- Eye Contacts (speak to him, to her)
- Speak to someone at the back of the room
- Body and hands
- Good posture
- Show your passion (not too much)

Shorter is better

- Don't irritate your audience
- Job candidates tend to go long
- Show don't tell

Stories

Stories get attention



Outline

Why?

What?

How?

Slide by slide

Slide by slide

example: ShoeSense

1. first slide
2. Insight
3. Motivation & Related work
4. ~~Outline~~
5. The Key idea
6. (Bonus)
7. Conclusion / Future work
8. Questions

How to Start

Convey excitement about the topic

- Ask audience a question?
(Set context, what do you know?)
- Important topic
- Tease with results

Give an idea of your system as soon as possible

- A short demo / video (a couple of seconds)
- To have an idea in your head
- Tease with results

Title

I. First slide

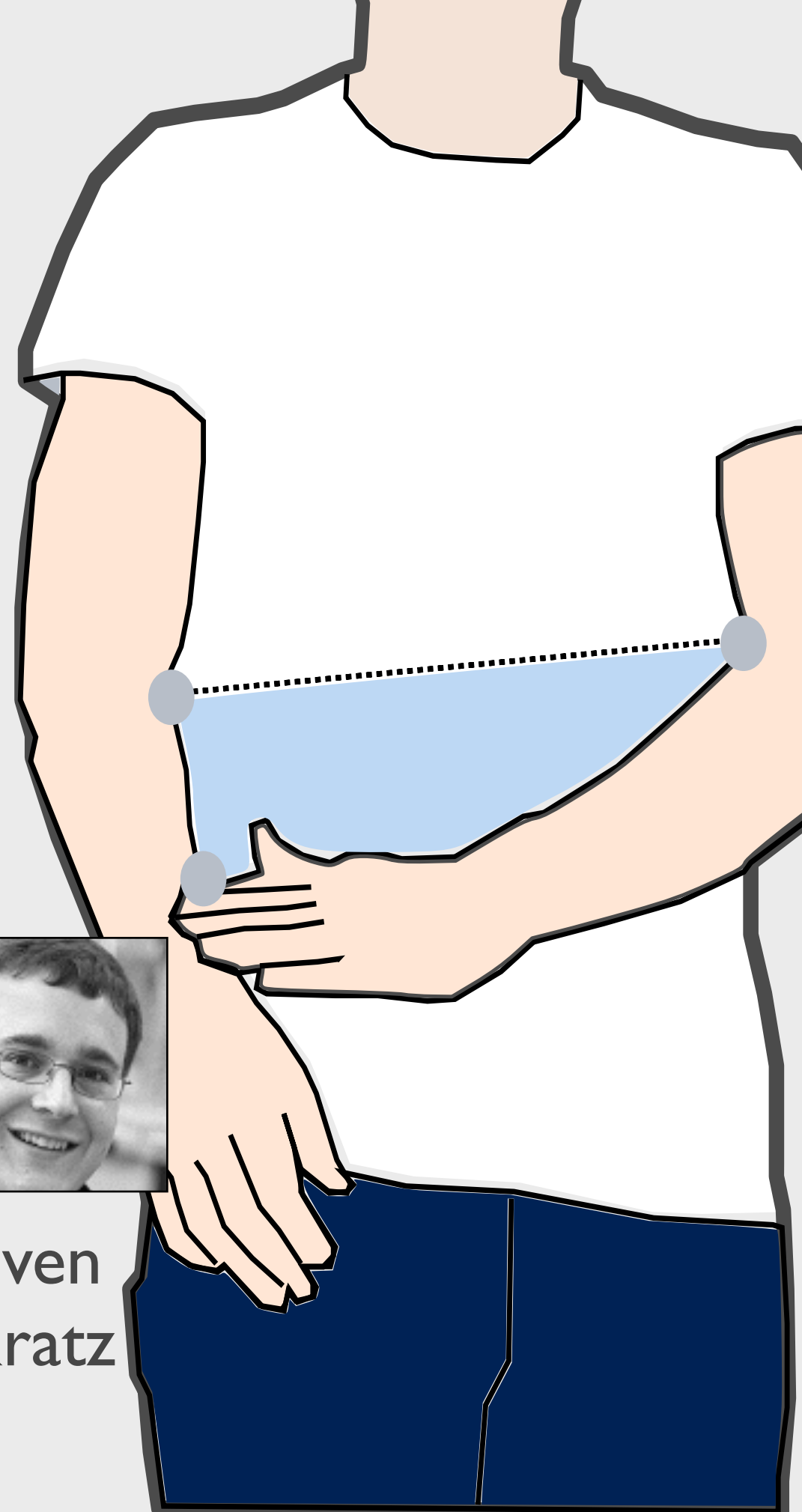
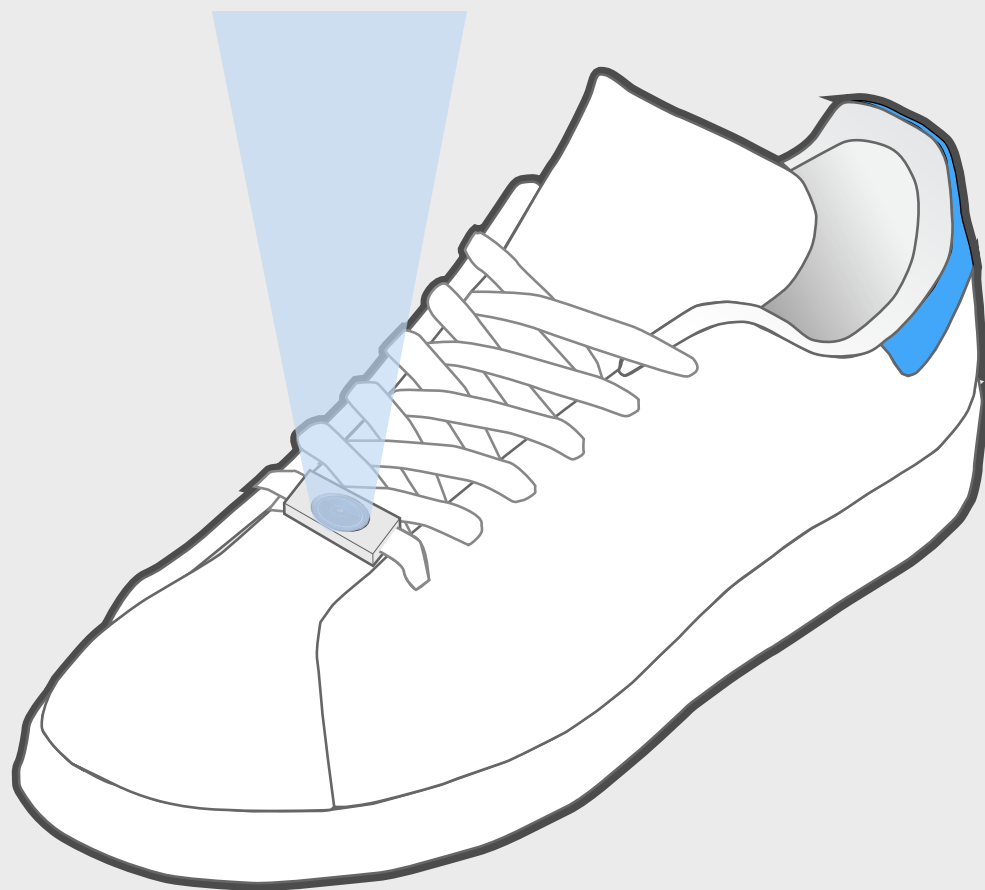
System



Authors

Institution

ShoeSense



Gilles
Bailly



Jörg
Müller



Michael
Rohs



Daniel
Wigdor



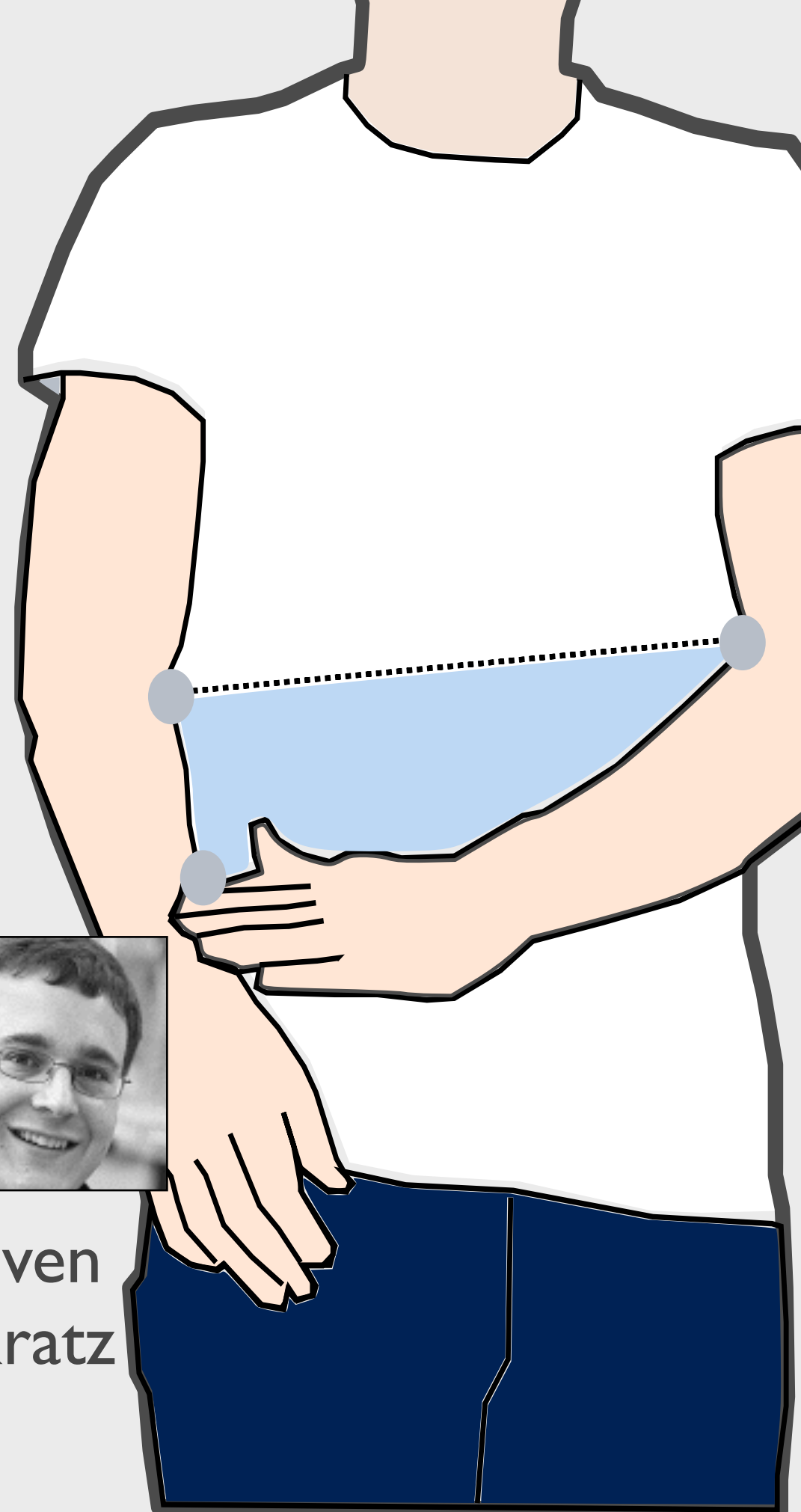
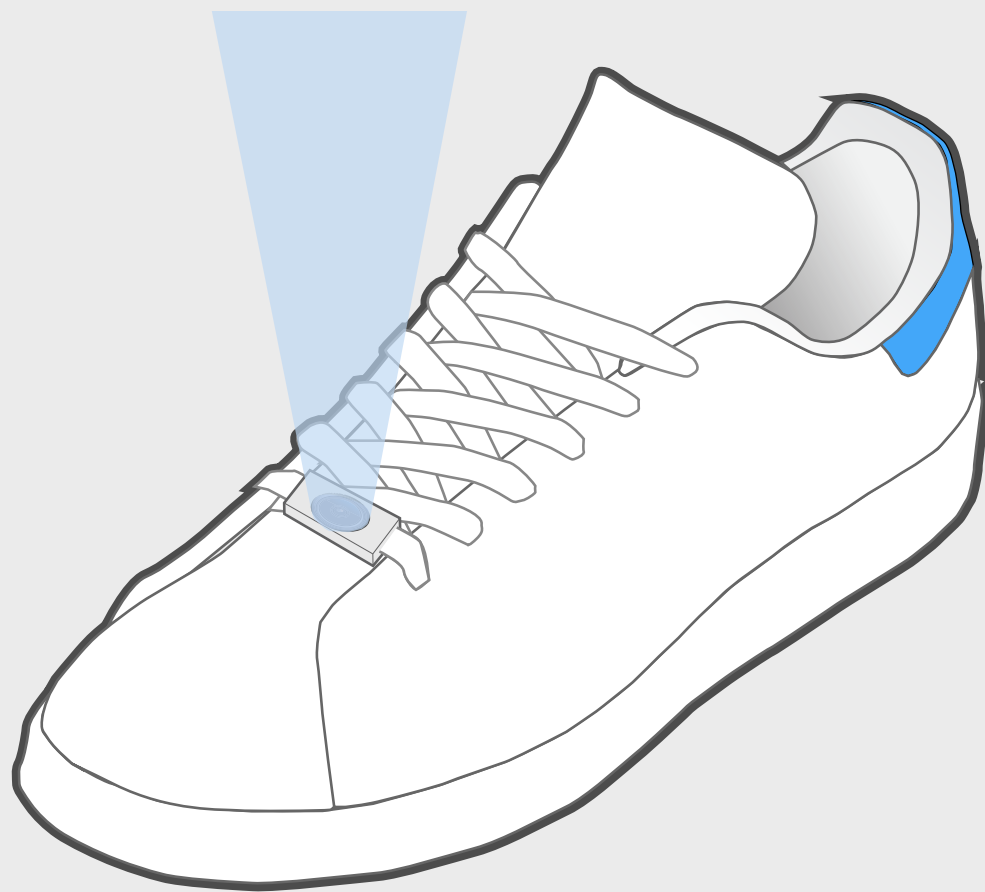
Sven
Kratz

I. First Slide

Visibility

- Average 5 minutes
- up to 15 minutes for the first speaker of the session

ShoeSense



Gilles
Bailly



Jörg
Müller



Michael
Rohs



Daniel
Wigdor



Sven
Kratz

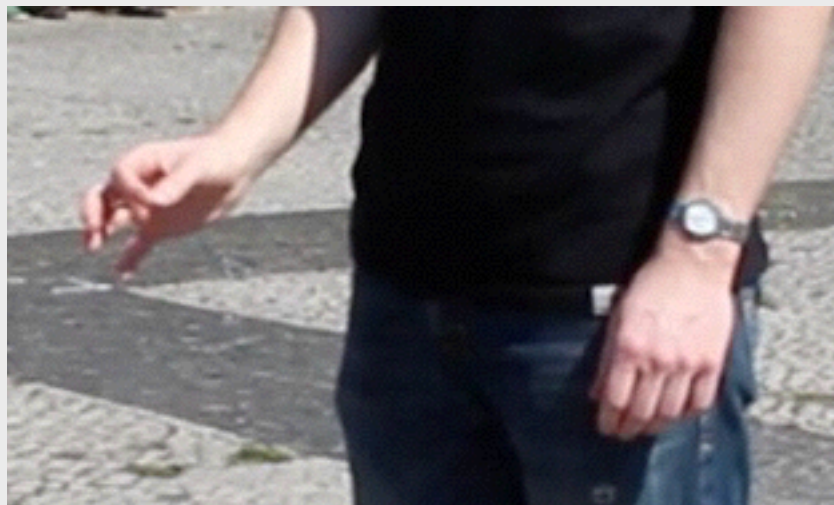
5s Video

5s Video

5s Video (with sound)

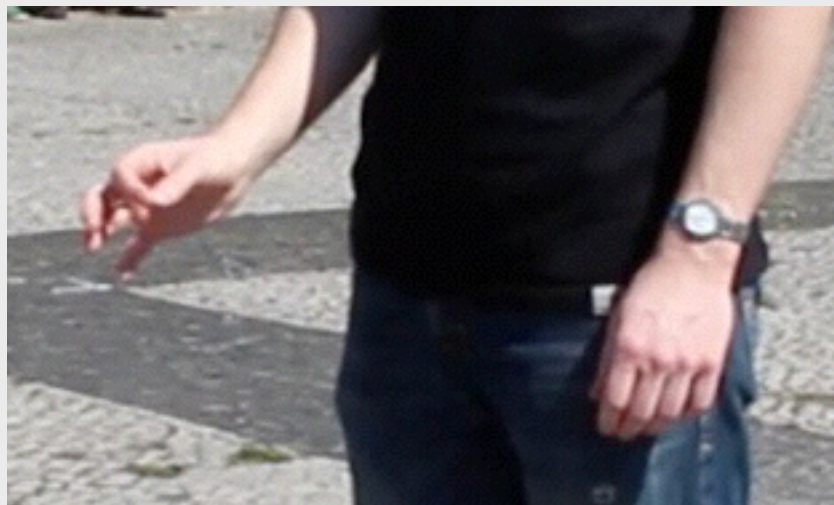
5s Video (with sound)

3 Gesture Sets

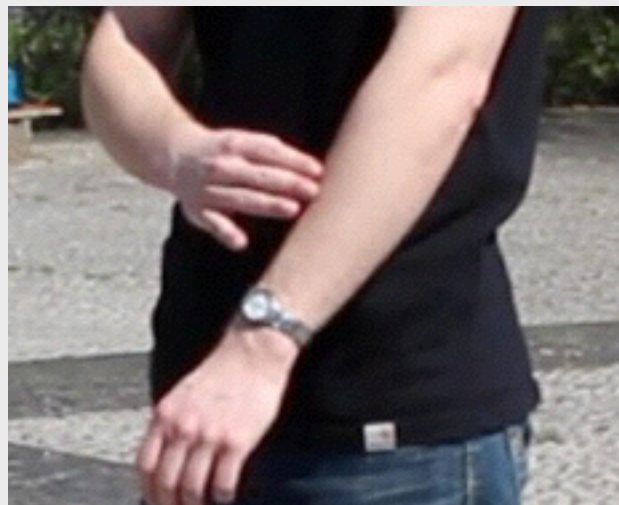


Next Song

3 Gesture Sets

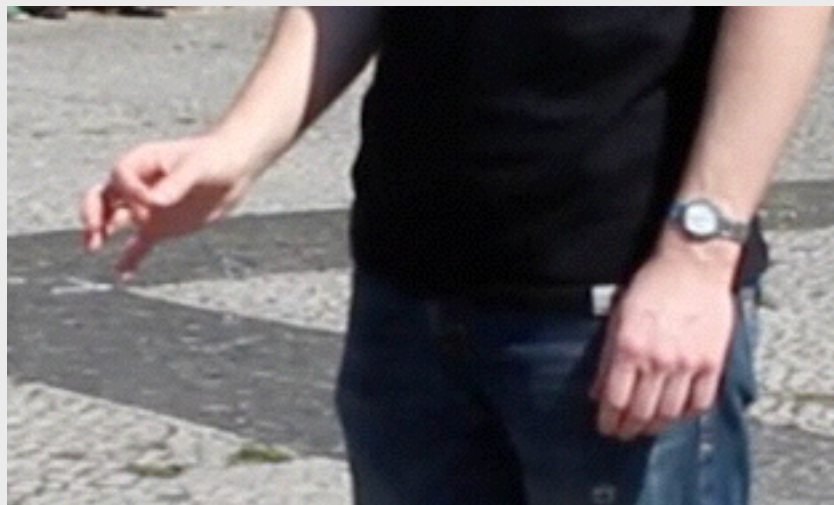


Next Song

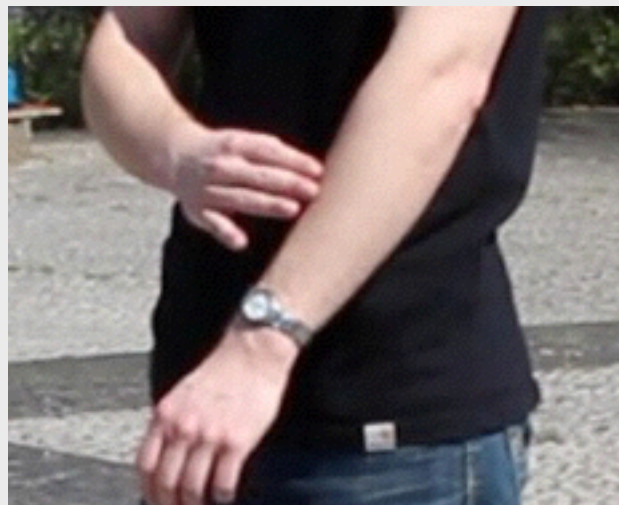


Volume +

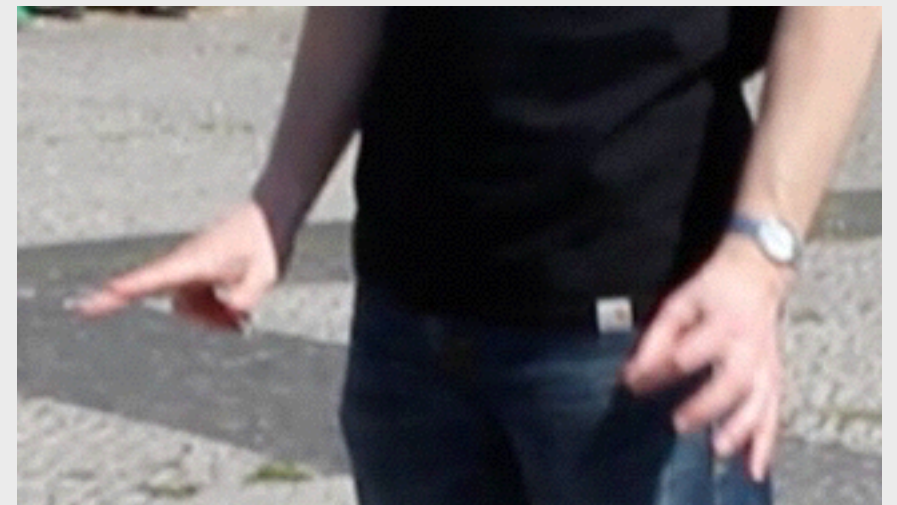
3 Gesture Sets



Next Song

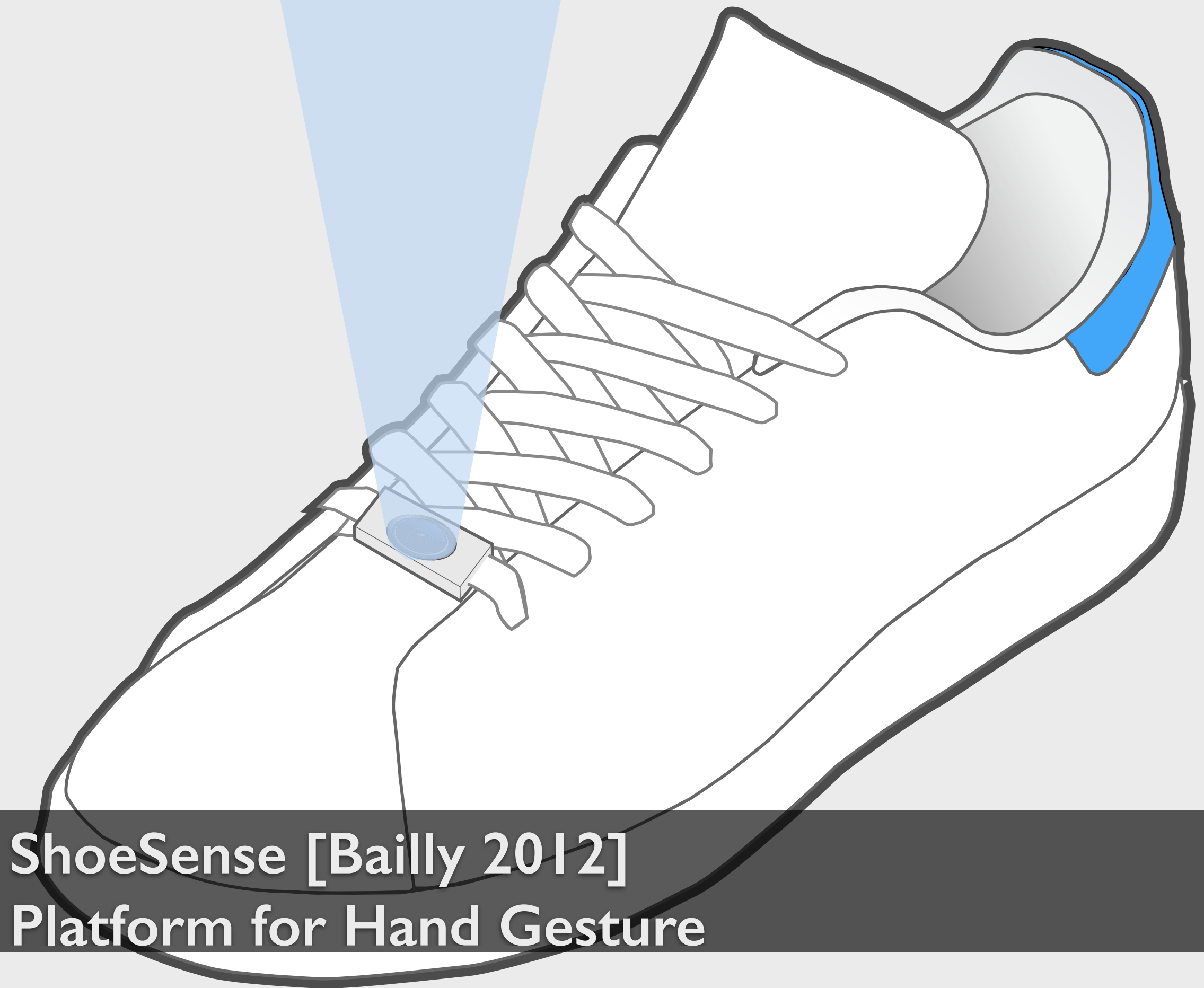


Volume +



Send message

3 Gesture Sets



ShoeSense [Bailly 2012]
Platform for Hand Gesture

Shoes as a platform for interaction

Shoes as a platform for **Hand
Gesture** interaction

Shoes as a platform for
interaction

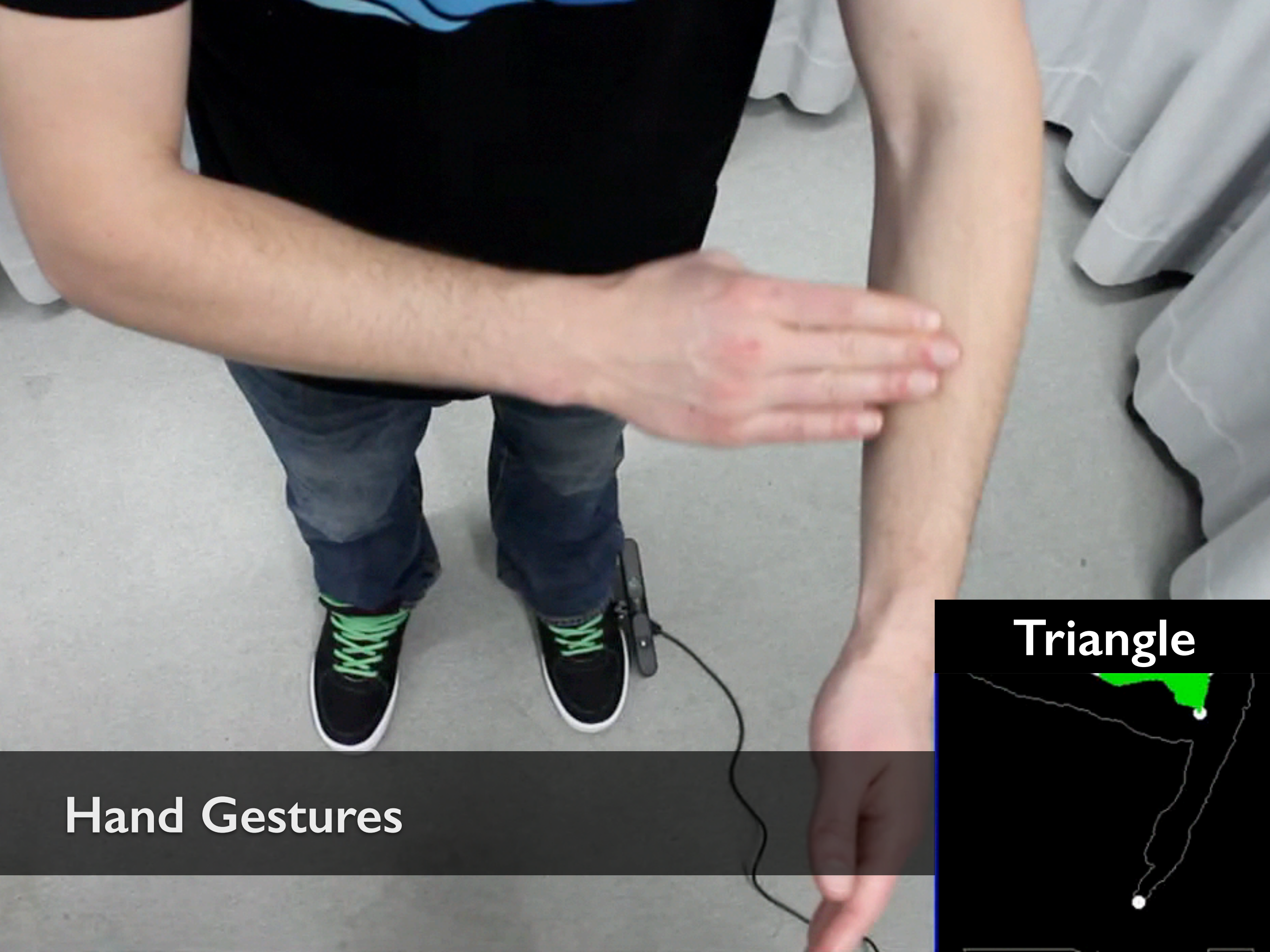
Shoes as a platform for **Hand
Gesture** interaction



Hand Gestures

Triangle





Hand Gestures

Triangle





Mobile Device Interaction



Mobile Device Interaction

Motivations

2. Insight

Quickly provide the **idea**

- A picture / A short video / a short demo (System)
- Message (model/user studies/etc.)

Motivations

Mobile Device





Using a mobile device can be inappropriate



Using a mobile device can be **Difficult**



Reaching the Mobile Device

Wearable Computing

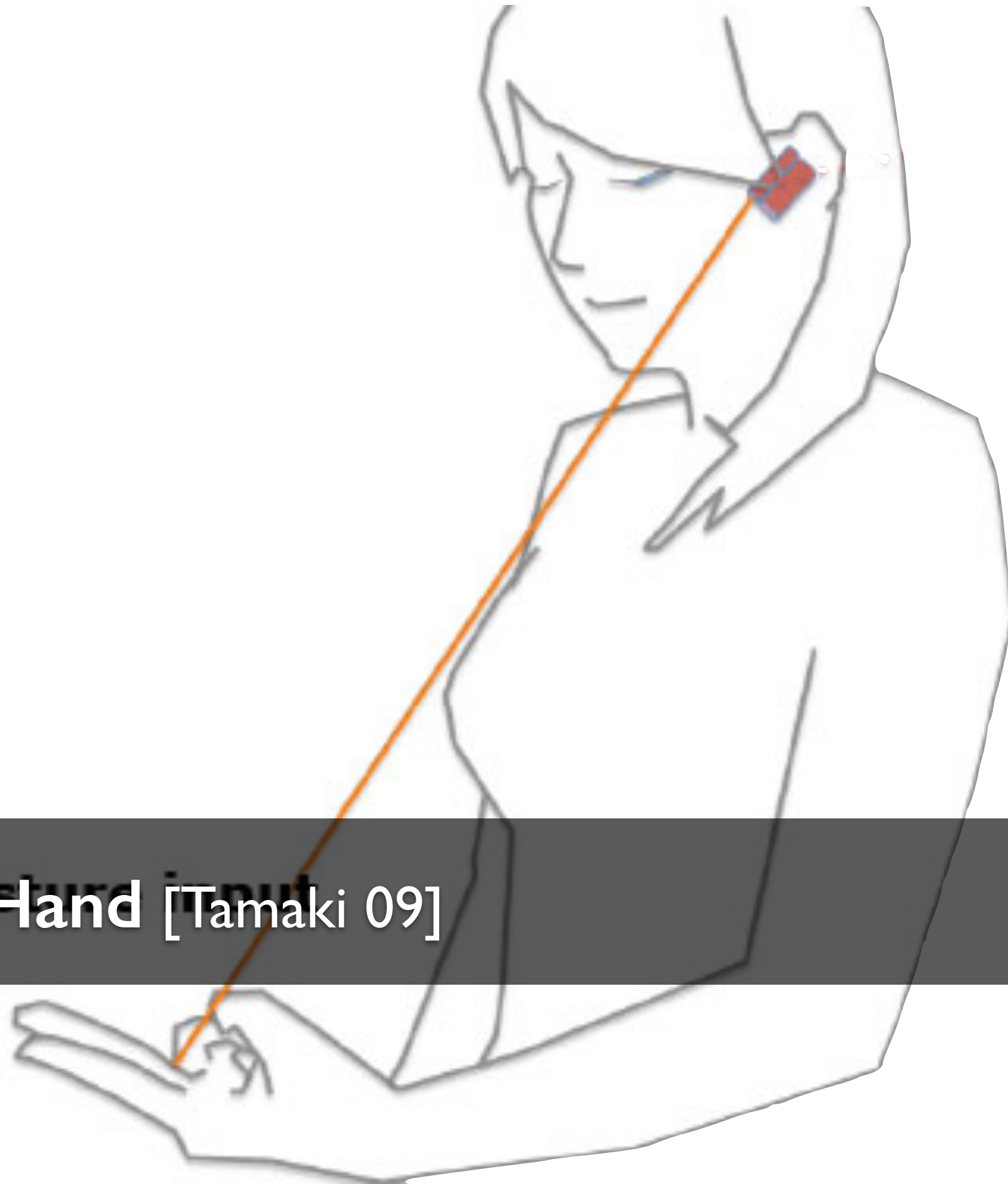
Hand Gesture System

Related Work



Sixth Sense [Mistry 09]

Brainy Hand [Tamaki 09]





OmniTouch [Harrison II]



Gesture Pendant
[Starner et al. 00]

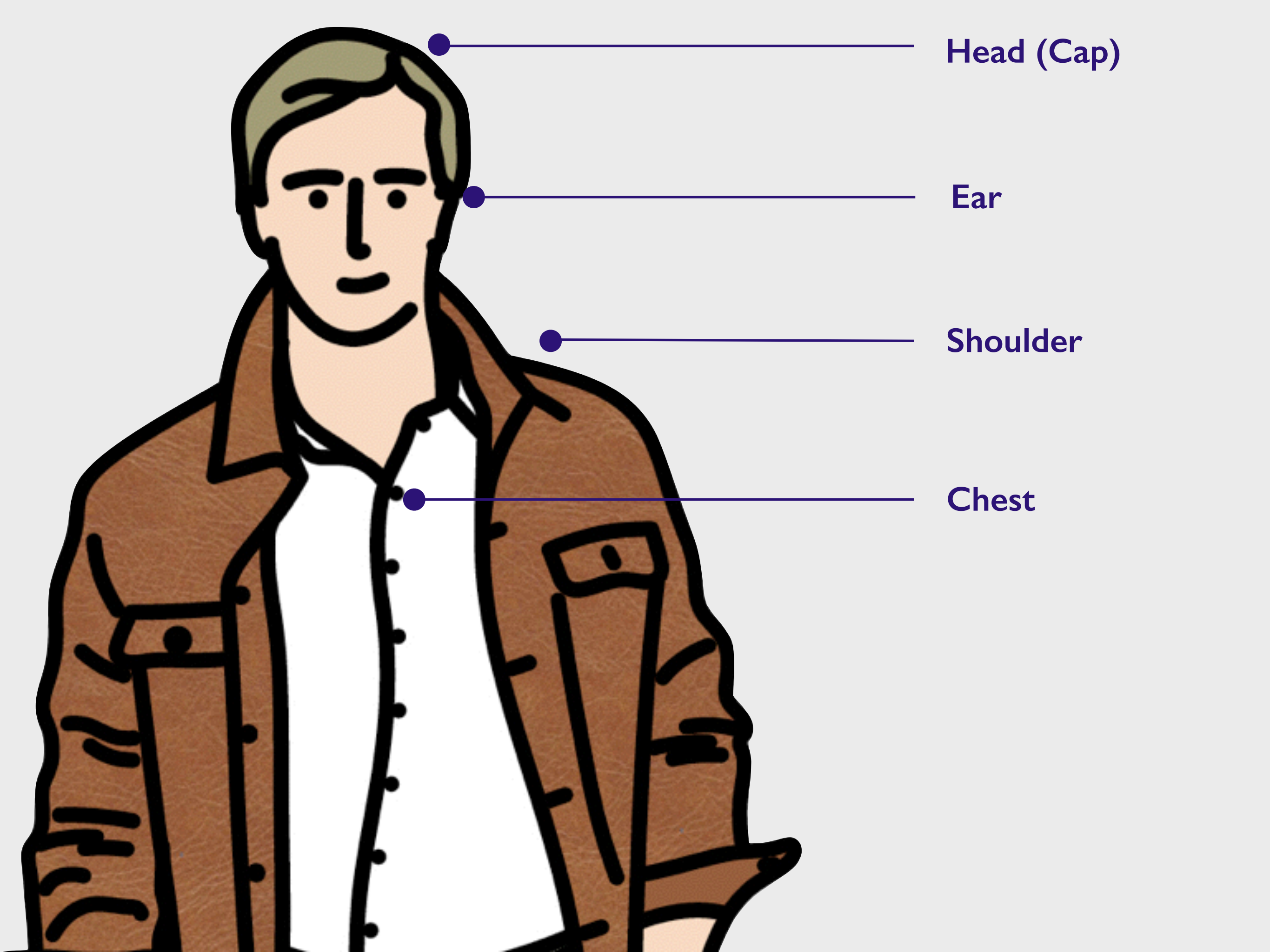


Sixth Sense
[Mistry et al. 09]



Imaginary Interface
[Mistry et al. 09]

Where?

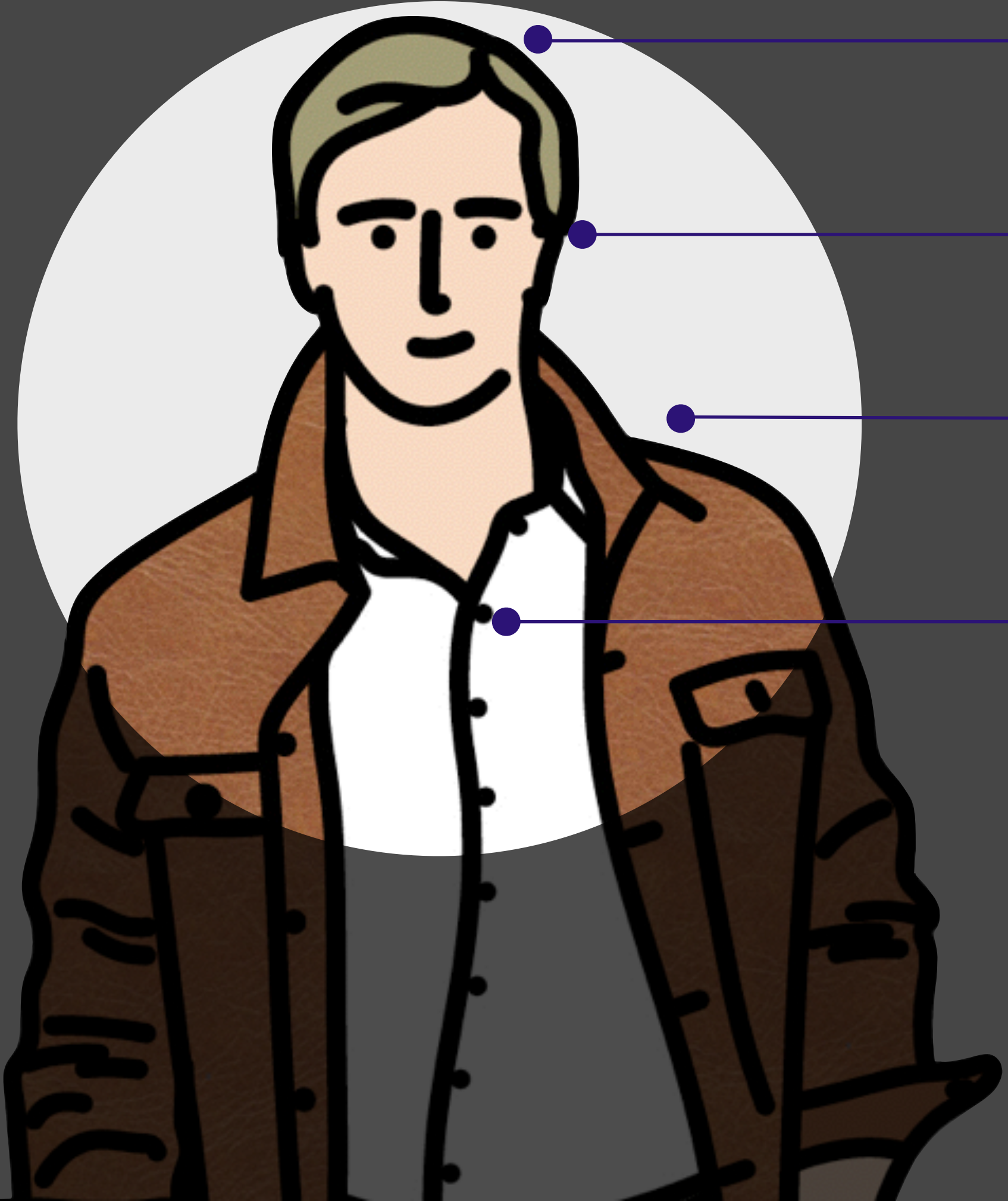


Head (Cap)

Ear

Shoulder

Chest



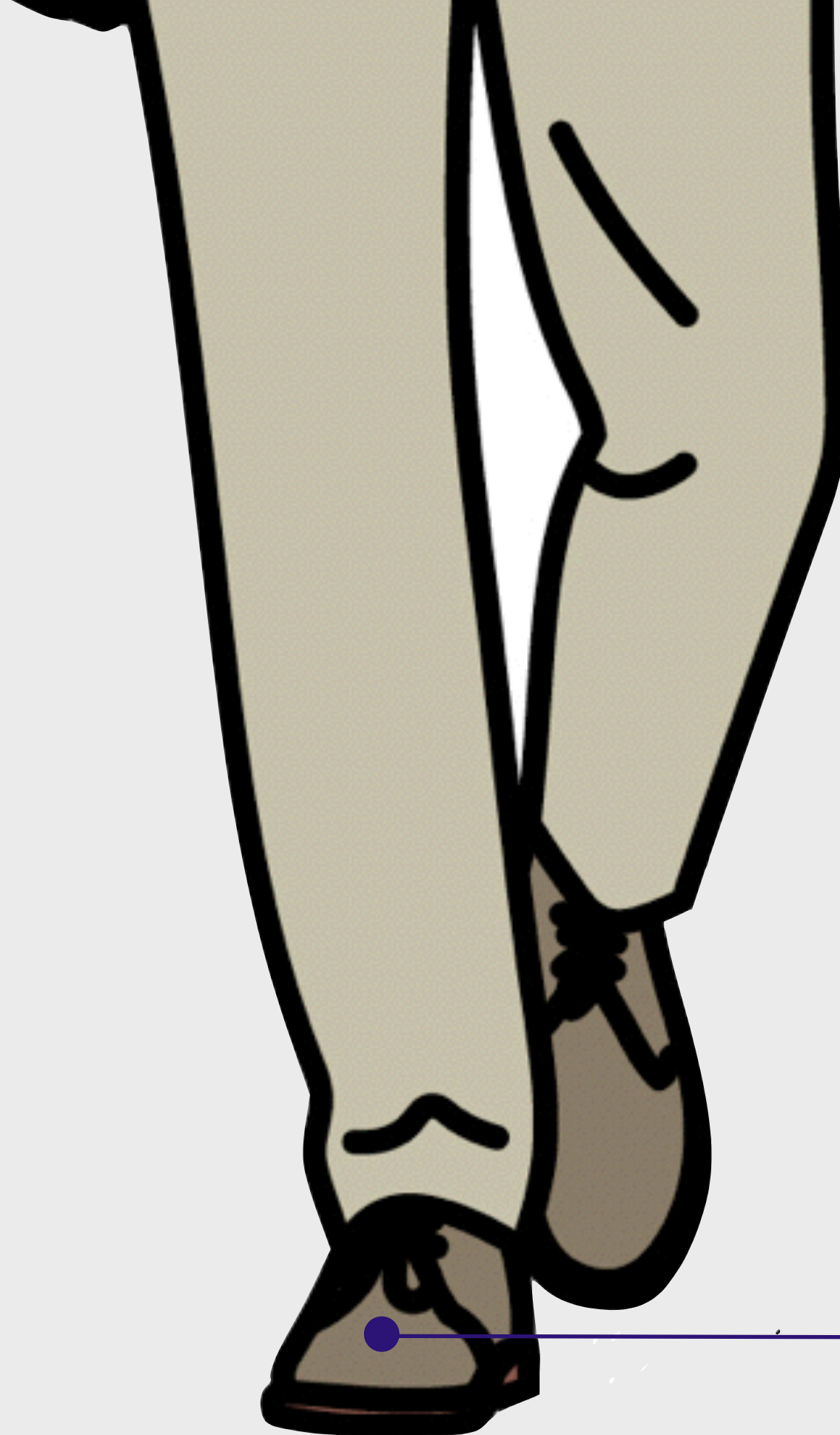
Head (Cap)

Ear

Shoulder

Chest

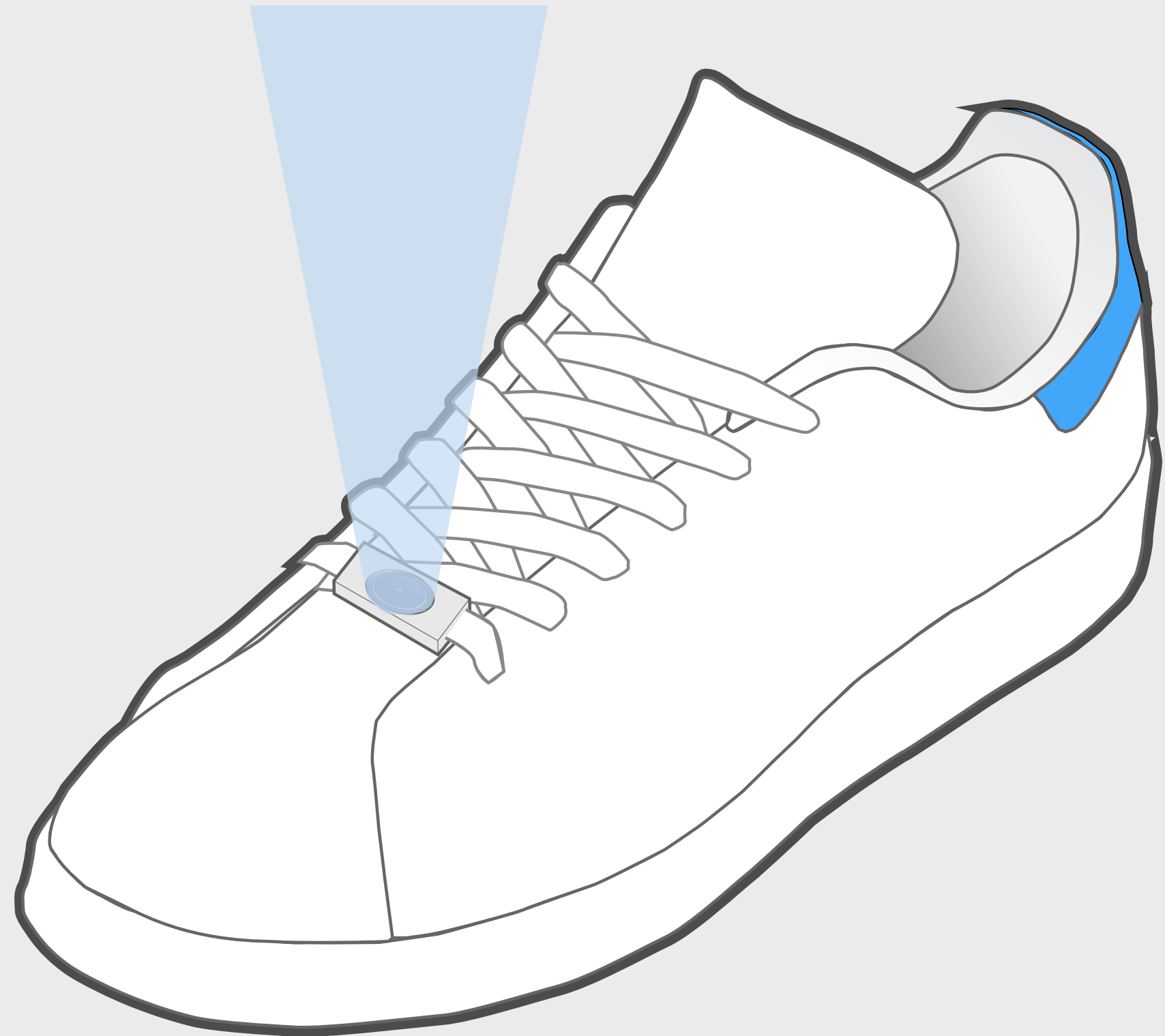




Foot

ShoeSense

Sensor located on the shoe



3. Motivation

2 minutes before they start to doze

Motivation is Your Introduction

- What is the problem?
- Why is it an important and interesting problem?
(audience will be distracted by guessing otherwise)
- Why your solution is better

5. Related Work

Do not spend too much time on related work

Use pictures of the article

1 paper == 1 slide

4. ~~Outline~~

Outline of your talk:

- Conveys near zero information at the start of your talk
- Guides the audience after the motivation and insights
- No need to indicate Introduction and Conclusion (obvious)

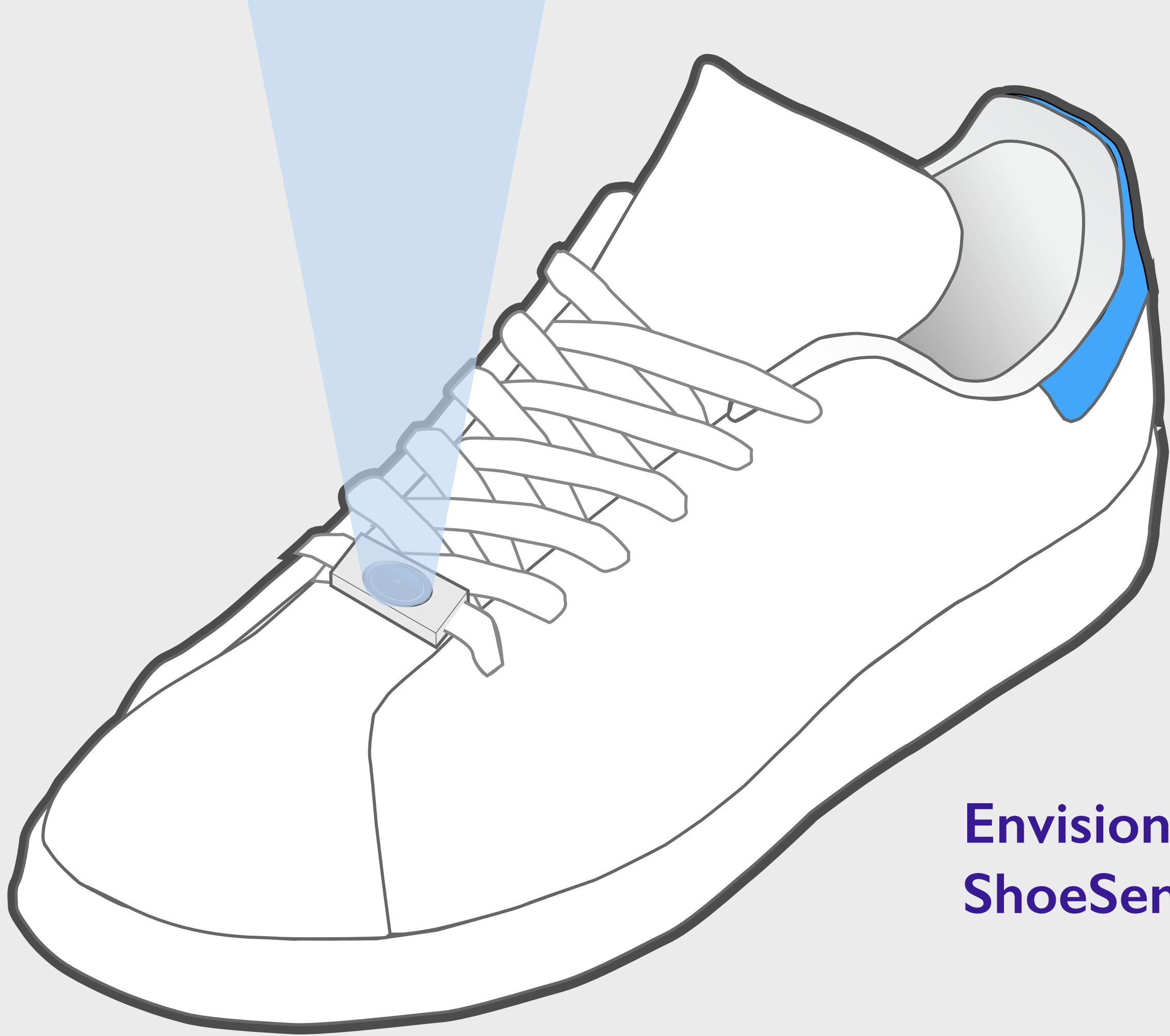
5. The Key Idea

It depends on your talk :)

6. Bonus

A gift

Audience is happy to have something for free



**Envisioned
ShoeSense**



Proof-Of-Concept

Second prototype





7. Conclusion / Future work

Brief summary (The key idea)

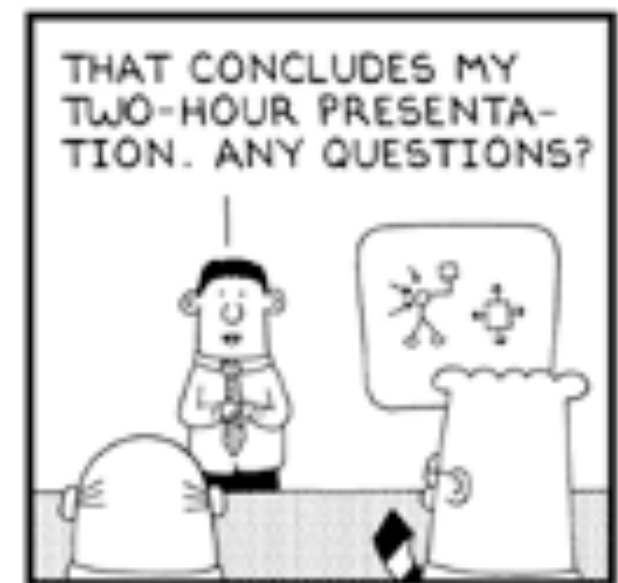
Opens new avenue of research

Finish on time

- Audience finishes listening when your time is up
- Truncate and stop

Indicate when you are done

- “That’s the end. Thanks for listening.”



Last slide

It is generally your first slide

End on a memorable slide

Title

Your system

Your name

Your institution

ShoeSense

Gilles Bailly
www.gillesbailly.fr

with J. Mueller, M. Rohs, D. Wigdor , S. Kraz



8. Questions

A opportunity to connect with your audience

Encourage questions during your talk

Prepare to truncate your talk

better to connect, and not to present all your materials

Keep slides in reserve

Conclusion

The Three R's of Letting Go

Reduce

Record

Repeat

Good Research Talk requires to you to:

- Invest time,
- Learn skills
- Practice, Practice, Practice

Motivation

- Explain the problem/ why it is important?

Key idea

- focus the attention
- nothing else

Shorter is better => pictures

5 Theses of the Power of a Presentation

Treat your audience as King

Spread ideas and move people

Help them see what you are saying

Practice design, not decoration

Cultivate Healthy relationships

