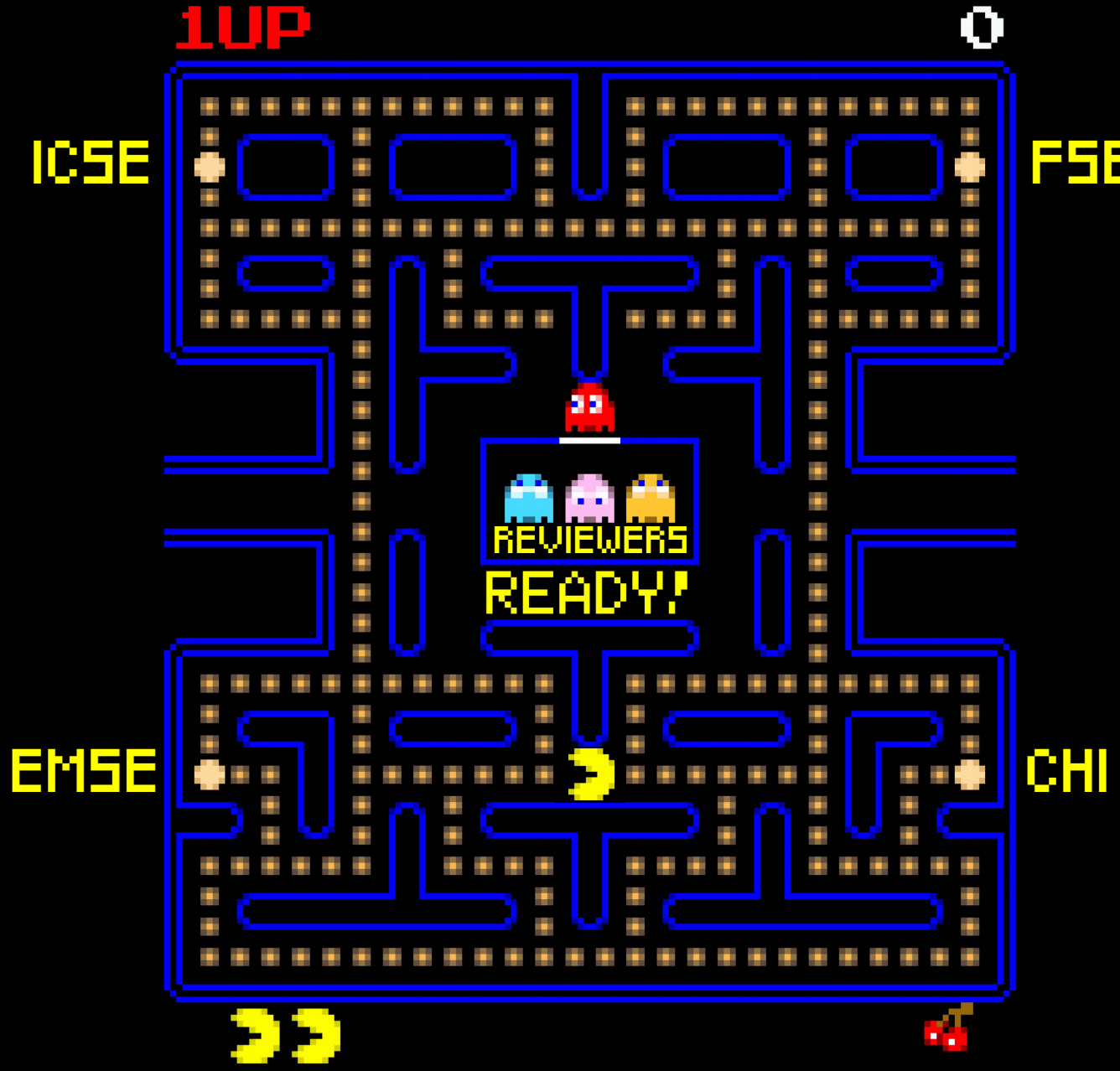
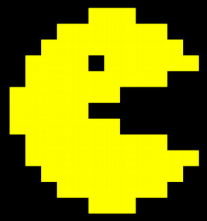


HOW (NOT) TO PhD?

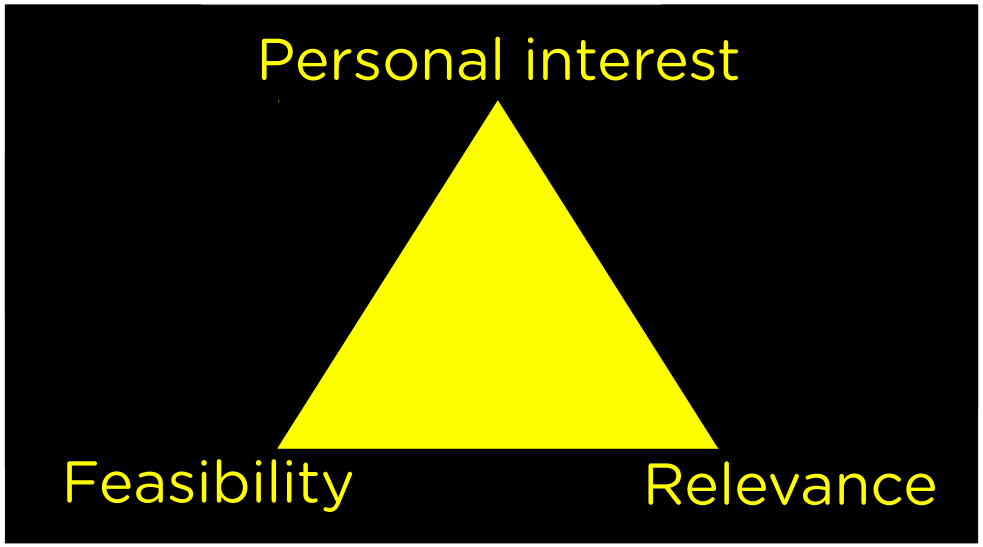
S.E.A.I. SoftTalk / 21.06.2018 / Carol V. Alexandru



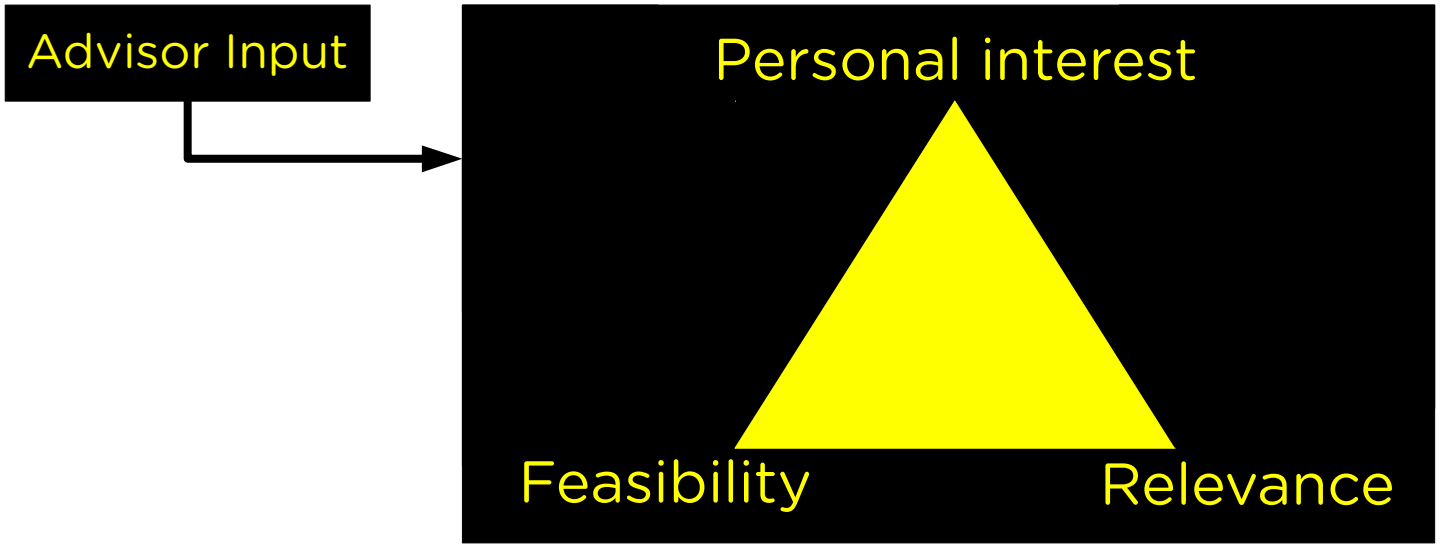
STAGE 1

ChOOSiNG a tOPiC

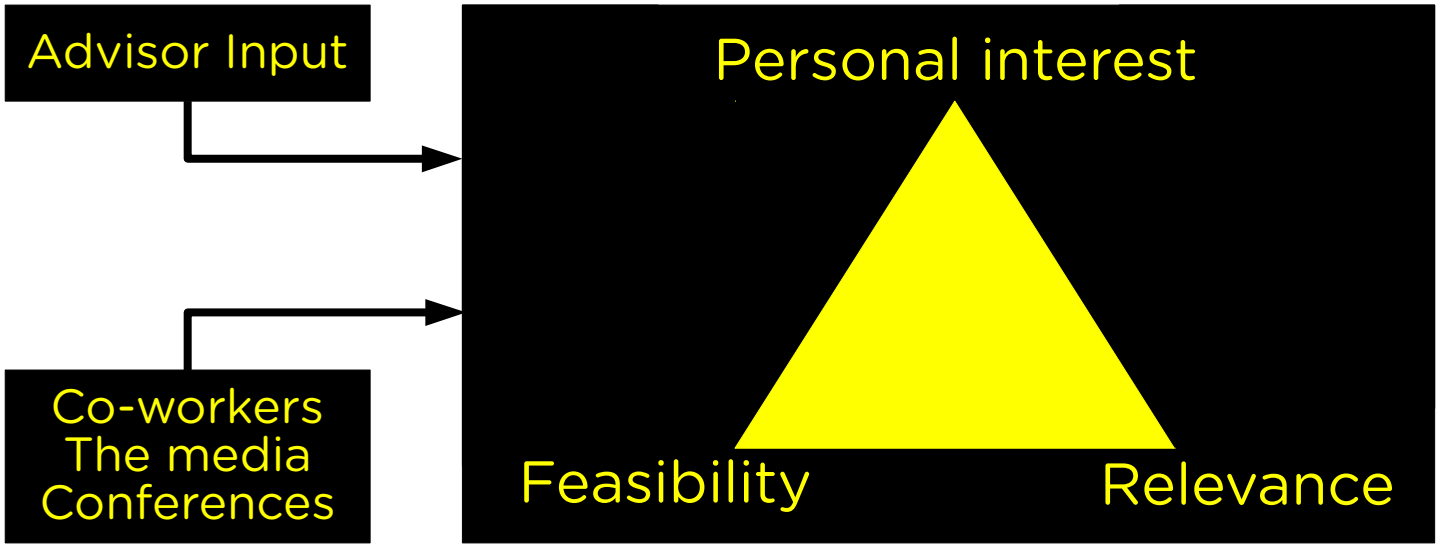
Choosing a topic



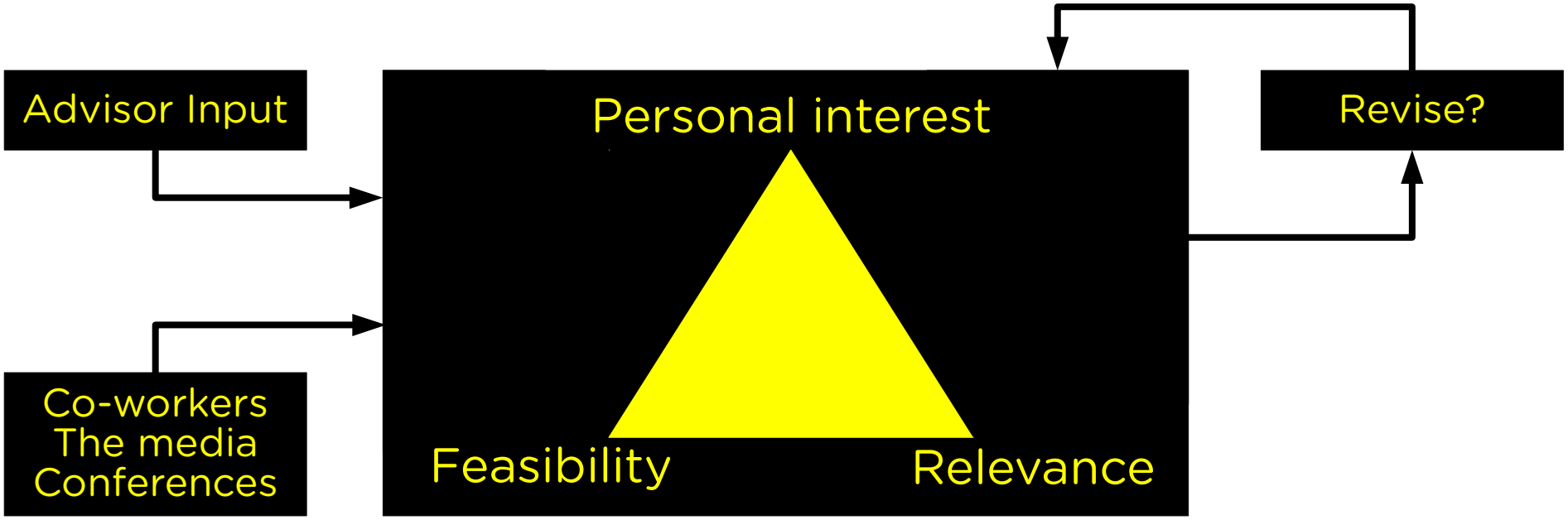
Choosing a topic



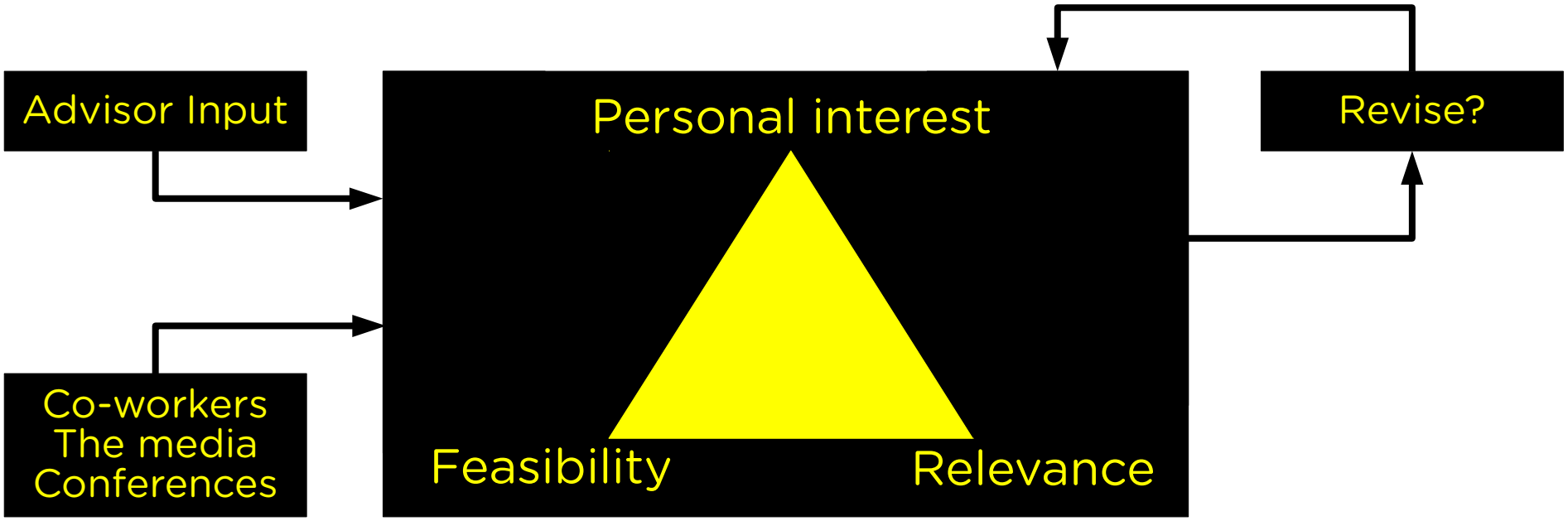
Choosing a topic



Choosing a topic



Choosing a topic



Be flexible → Try not to end up with a patchwork...

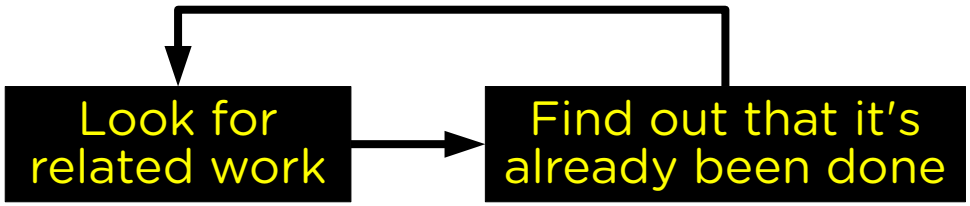
STAGE 2

Doing research

Doing research

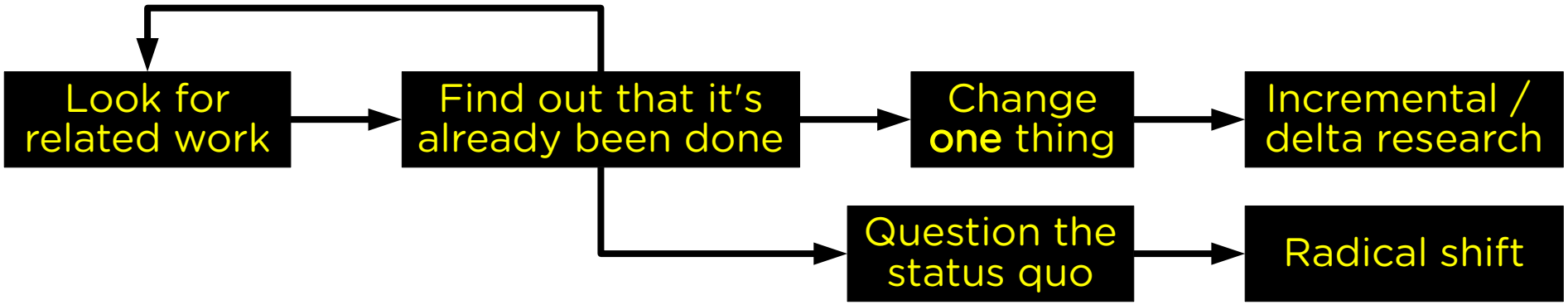
Look for related work

Doing research

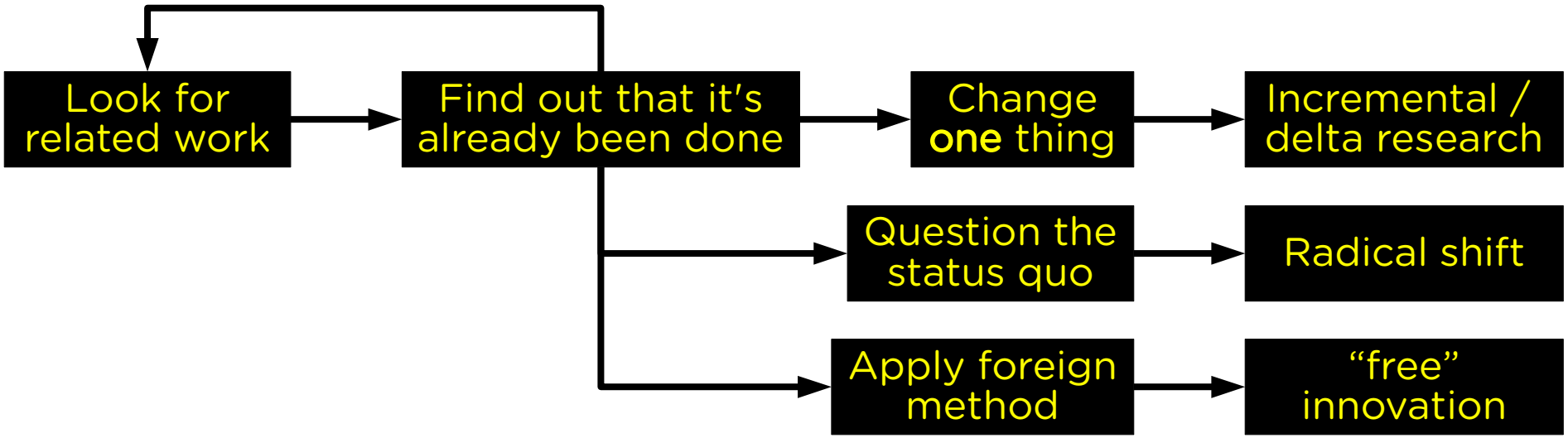


Doing research

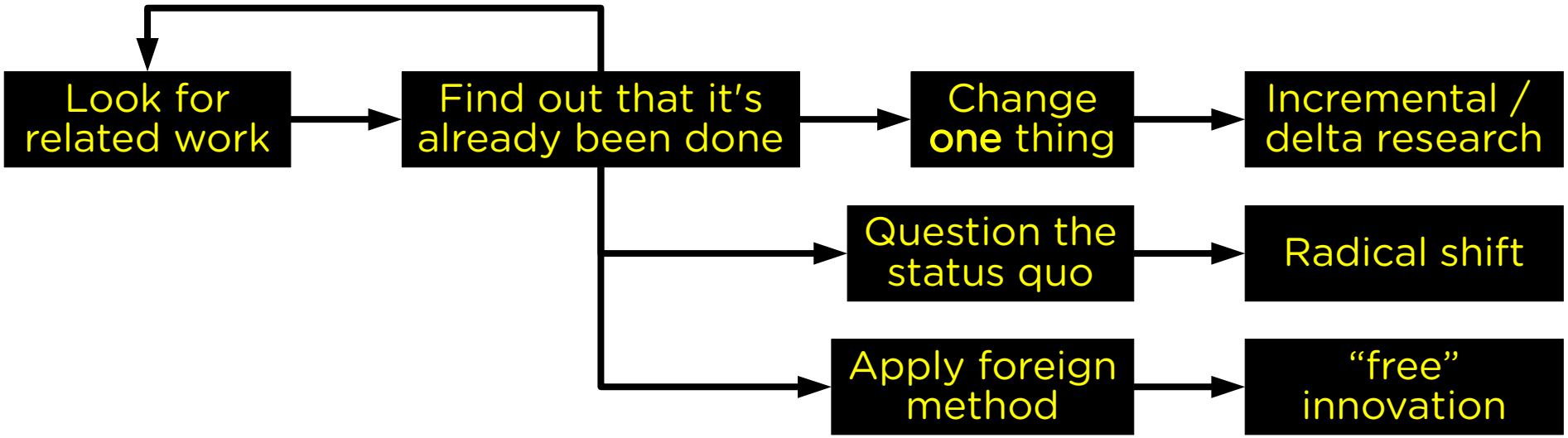
Doing research

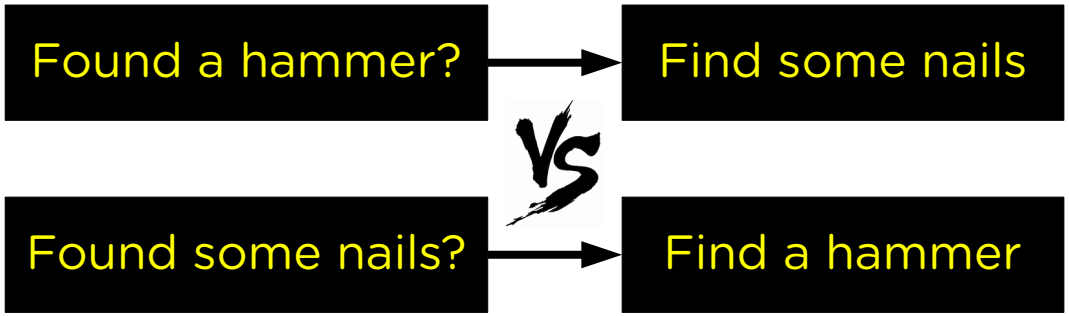


Doing research



Doing research





STAGE 3

WRITING PAPERS

Writing papers

Research, then write

Start writing, then research

Simon Peyton Jones: "How to write a great research paper"

Writing papers

Research, then write		Start writing, then research
Deadline-oriented		Objective-oriented

Simon Peyton Jones: "How to write a great research paper"

Writing papers

Research, then write	VS	Start writing, then research
Deadline-oriented	VS	Objective-oriented

Know your audience!

Simon Peyton Jones: "How to write a great research paper"

Writing papers

Research, then write

Start writing, then research

Deadline-oriented

Objective-oriented

Know your audience!

If no-one else does,
take charge yourself!

Simon Peyton Jones: "How to write a great research paper"

Writing papers

Research, then write **vs** Start writing, then research

Deadline-oriented **vs** Objective-oriented

Know your audience!

If no-one else does, take charge yourself!

View reviews not as an obstacle, but as free feedback → Submit often and early

Simon Peyton Jones: "How to write a great research paper"

Writing papers

Research, then write **vs** Start writing, then research

Deadline-oriented **vs** Objective-oriented

Know your audience!

If no-one else does, take charge yourself!

View reviews not as an obstacle, but as free feedback → Submit often and early

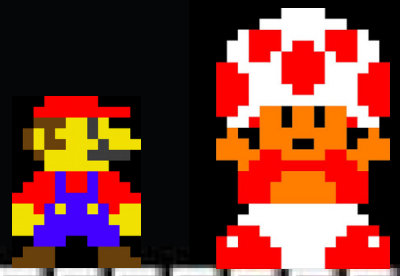
Failure is always an option - do retract

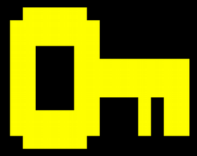
Simon Peyton Jones: "How to write a great research paper"

Writing papers

THANK YOU FOR YOUR SUBMISSION!

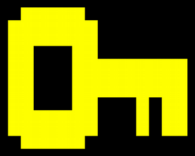
BUT YOUR PAPER
MUST GO TO ANOTHER VENUE!





STAGE 4

Presenting

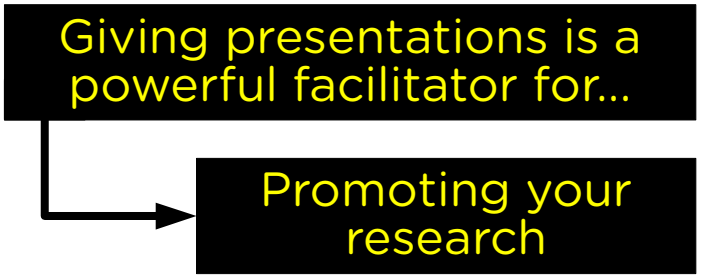


Presenting

Giving presentations is a powerful facilitator for...

Simon Peyton Jones: "How to give a great research talk"

Presenting



Simon Peyton Jones: "How to give a great research talk"

Presenting

Simon Peyton Jones: "How to give a great research talk"

Presenting

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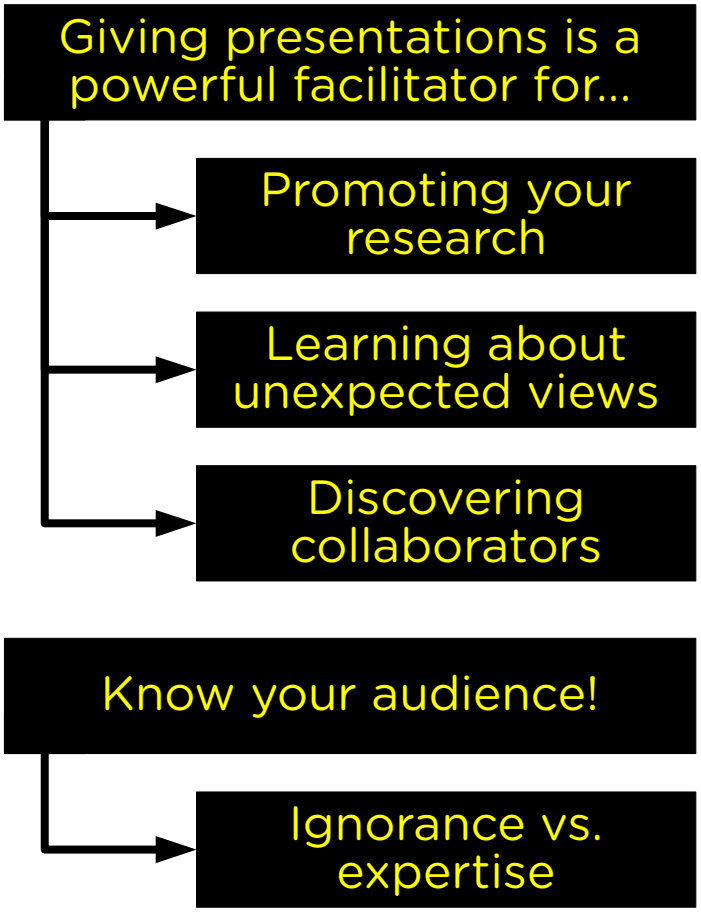
Presenting



Simon Peyton Jones: "How to give a great research talk"

Presenting

Giving presentations is a powerful facilitator for...

- Promoting your research
- Learning about unexpected views
- Discovering collaborators

Know your audience!

- Ignorance vs. expertise

Actively try to improve your presentation skills

Simon Peyton Jones: "How to give a great research talk"

Presenting

- Giving presentations is a powerful facilitator for...
  - Promoting your research
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  - Ignorance vs. expertise

- Actively try to improve your presentation skills
  - Replace “uhm”s with pure silence
  - Speak loud and clearly

Simon Peyton Jones: "How to give a great research talk"

Presenting

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  - Never, ever exceed your time limit!

Simon Peyton Jones: "How to give a great research talk"

Presenting

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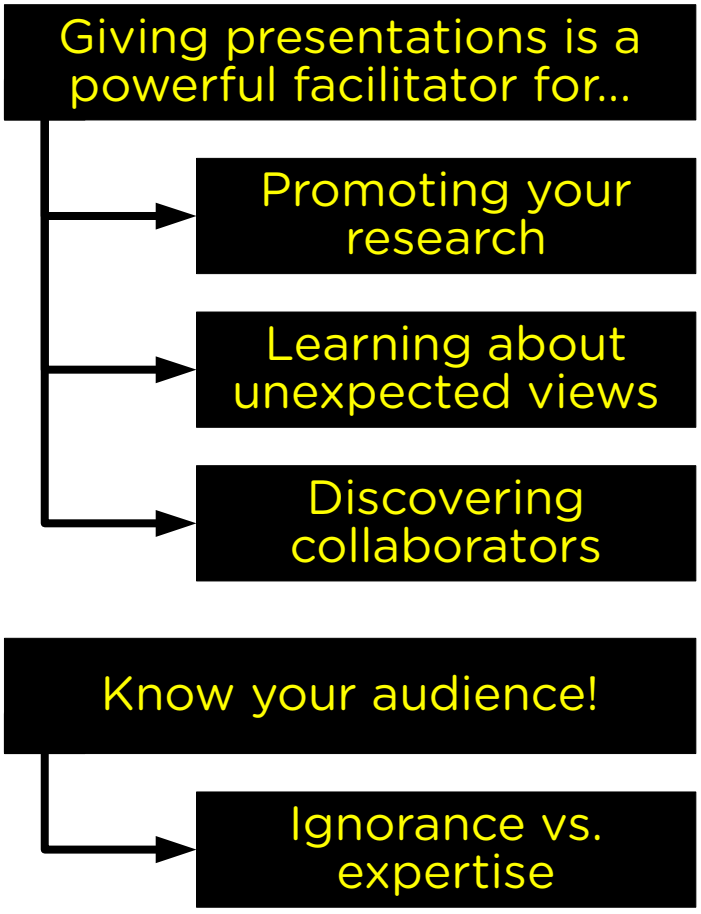
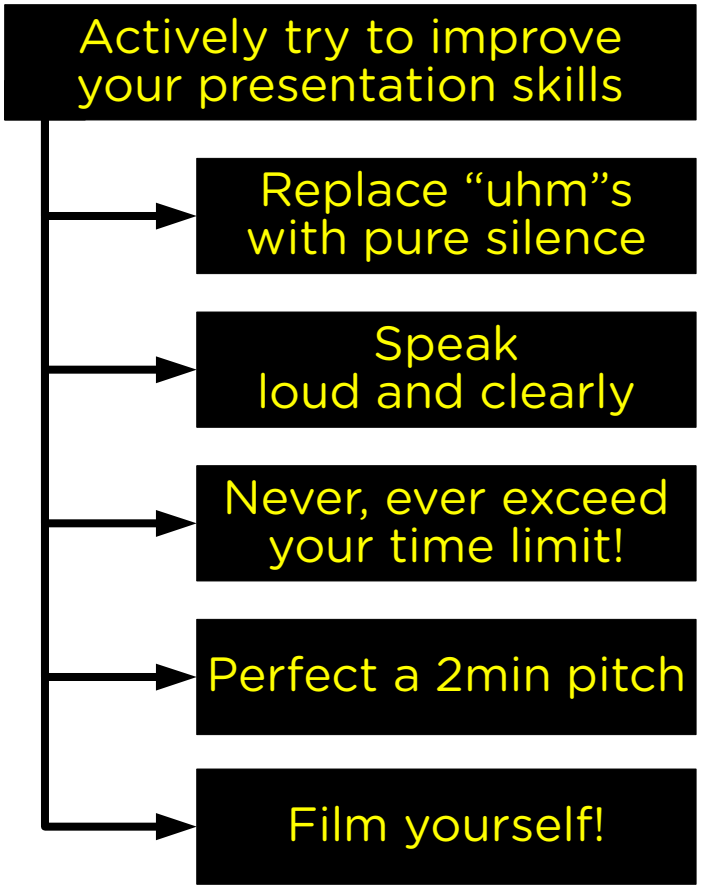
  - Discovering collaborators
- Know your audience!
  - Ignorance vs. expertise

- Actively try to improve your presentation skills
  - Replace “uhm”s with pure silence
  - Speak loud and clearly
  - Never, ever exceed your time limit!
  - Perfect a 2min pitch

Simon Peyton Jones: "How to give a great research talk"

Presenting





Simon Peyton Jones: "How to give a great research talk"

FINAL STAGE

Thesis

Thesis

Multi-revision code analysis

Thesis

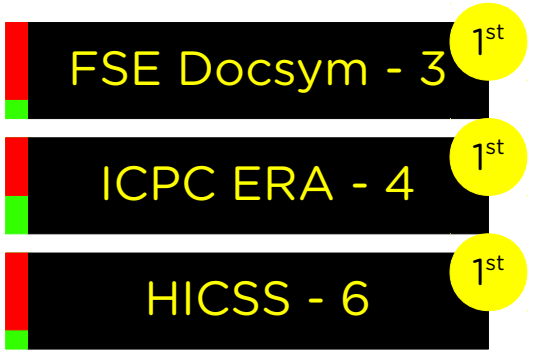
Multi-revision code analysis

Bug prediction

Thesis

Multi-revision code analysis

Neural Networks in SE

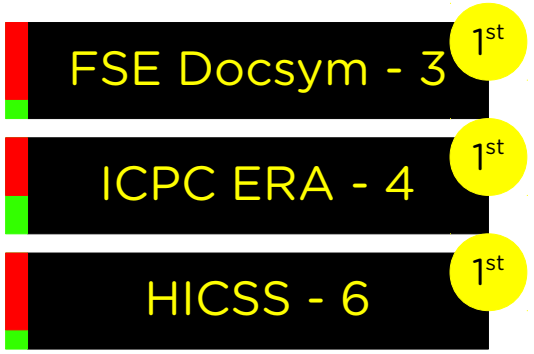


Bug prediction

Thesis

Multi-revision code analysis

Neural Networks in SE



Bug prediction

App review summarization

Thesis

Multi-revision code analysis

- ICSE NIER - 4 — 1st
- SANER TR - 12 — 1st
- EMSE - 50 — 1st

Neural Networks in SE

- FSE Docsym - 3 — 1st
- ICPC ERA - 4 — 1st
- HICSS - 6 — 1st

Bug prediction

- GECCO - 8 — 2nd

“Pythonic”

- Onward! - 14 — 1st

App review summarization

- ICSE DEMO - 4 — 3rd
- FSE TR - 12 — 3rd

Thesis

Multi-revision code analysis

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- Onward! - 14 — 1st

App review summarization

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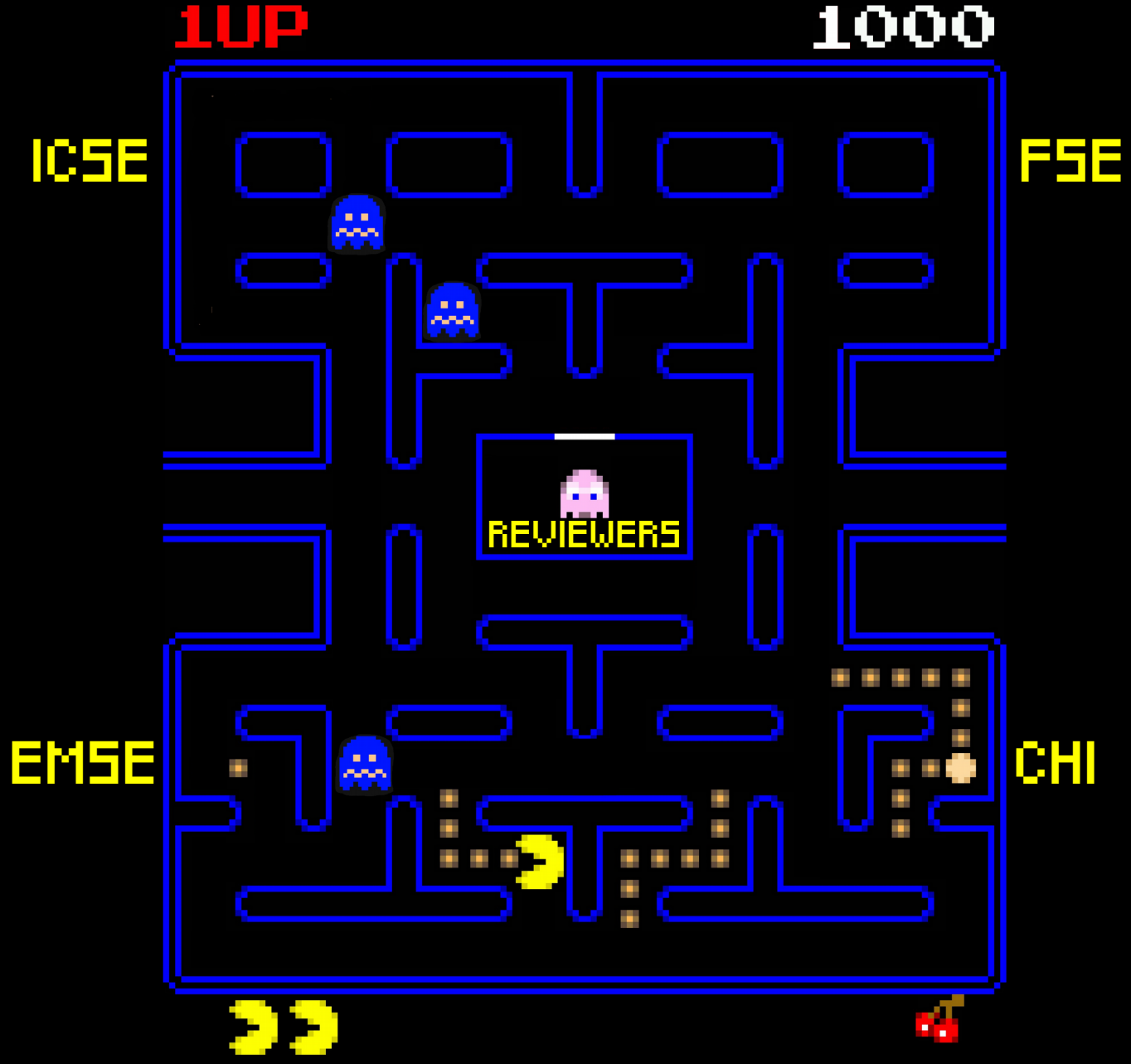
“Leveraging large-scale code repositories something something”



Happy PhD'ing!

S.E.A.I. SoftTalk / 21.06.2018 / Carol V. Alexandru