



An Educational Revolution for a Digital World

Lou Guenier

September 13, 2017

Agenda

A changed world



Agenda

A changed world

Design an educational system



Agenda

A changed world


Design an educational system

A new educational system

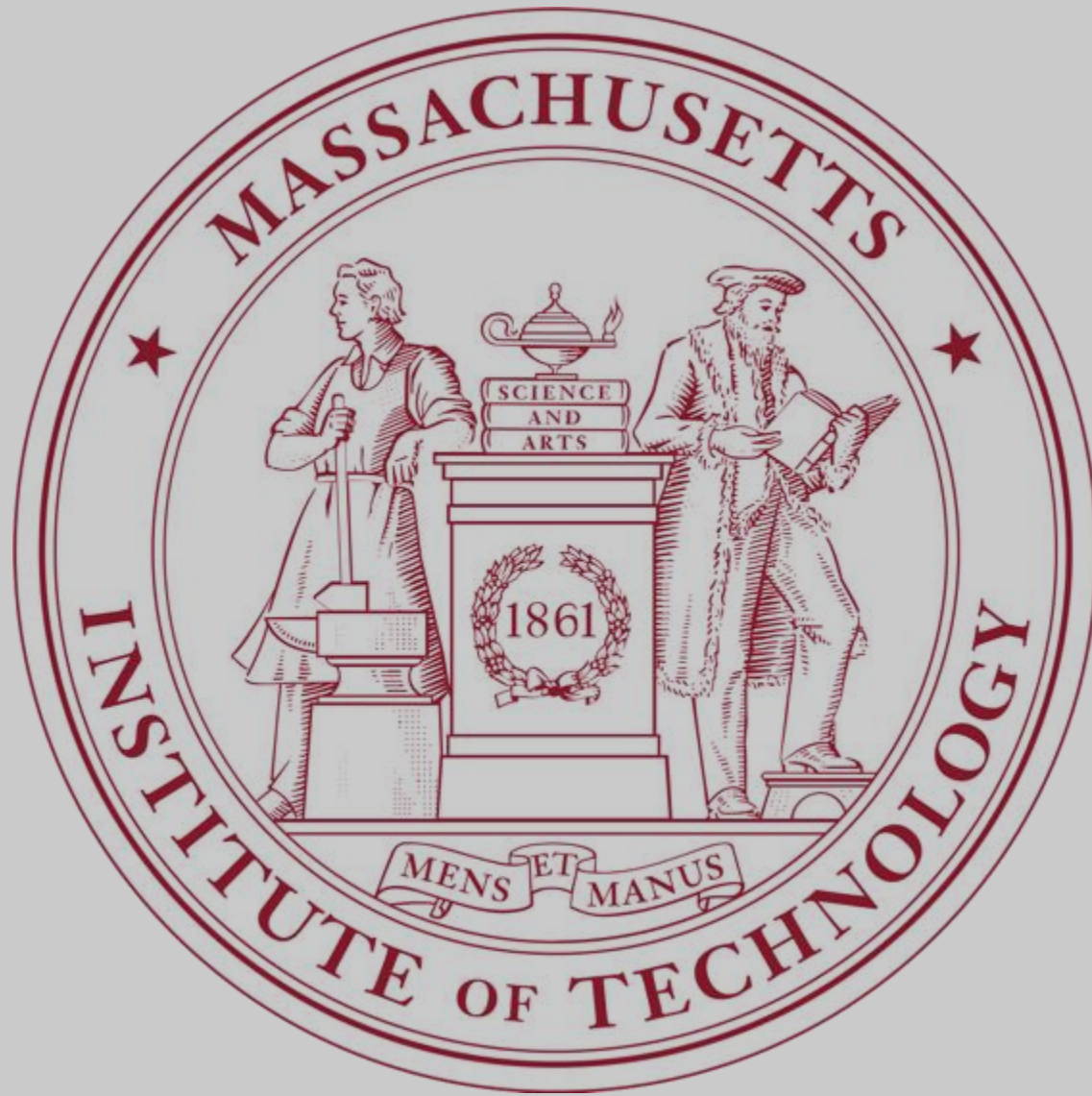




Left traditional
educational system
at 12



Ended up
here in India



What am I doing at MIT talking about education?

Driving force
Passion

```
SELECT room_name_full FROM tbl_room WHERE room_checked='0'
UNION ALL
SELECT room_name_full FROM tbl_disposition WHERE disposition_user = u.user_ID
```

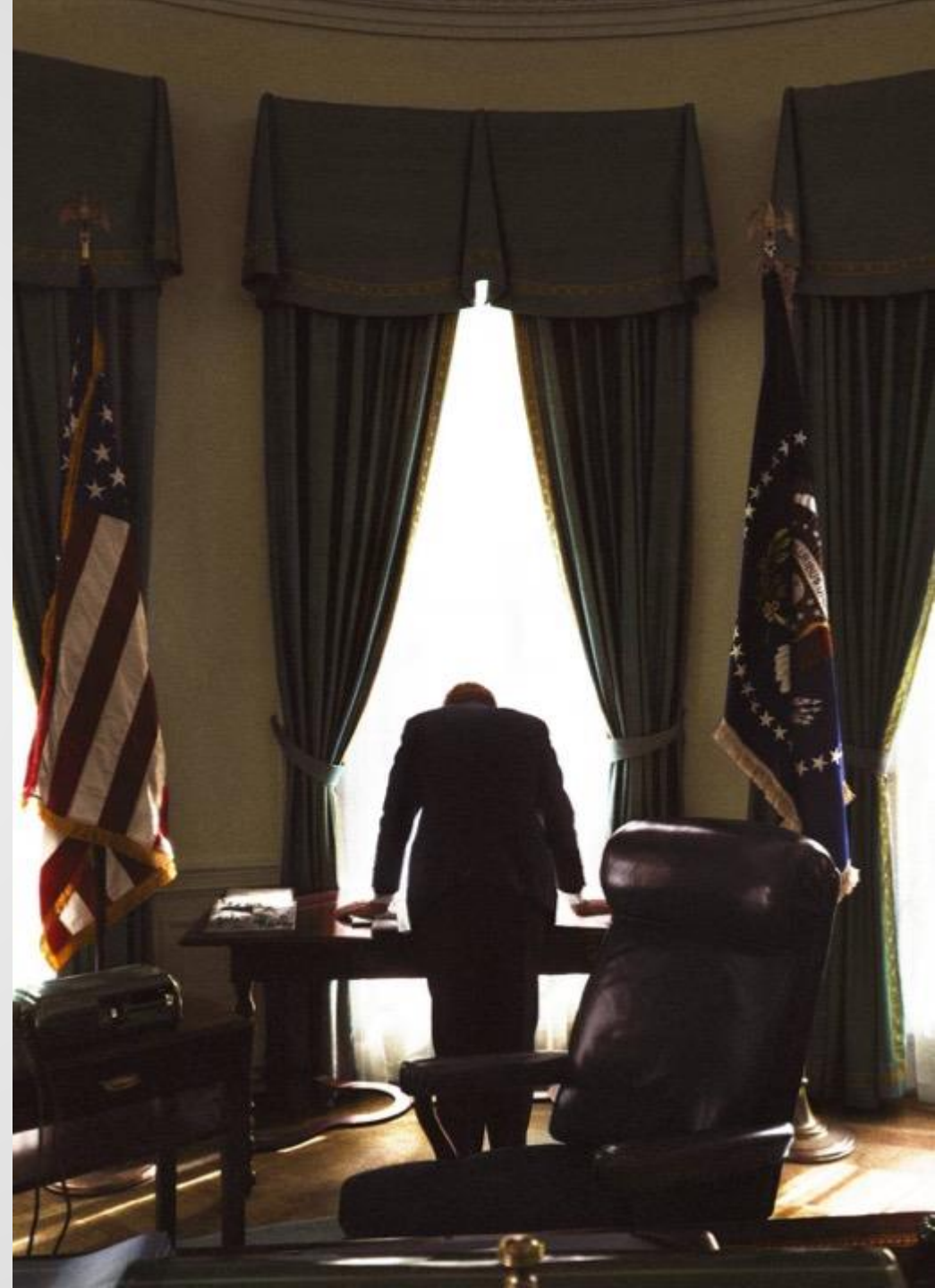


Impact of technology
all over the world





More
impact on
the world





Is that person ready
to have such an
influence?

Design an educational system



Design an educational system

Little access
to
information



Design an educational system

Little access
to
information

Little global
impact

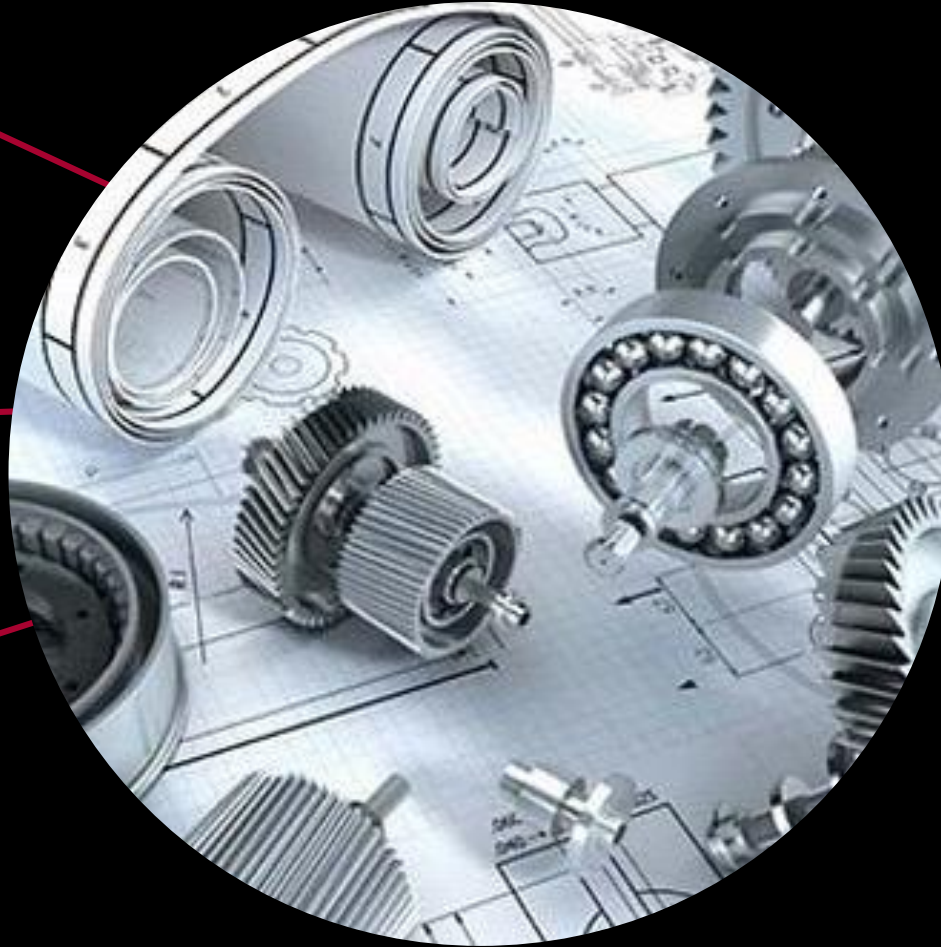


Design an educational system

Little access
to
information

Little global
impact

Tradition
& status
quo



Design an educational system

Little access
to
information

Little global
impact

Tradition
& status
quo

Repetitive
work



Design an educational system

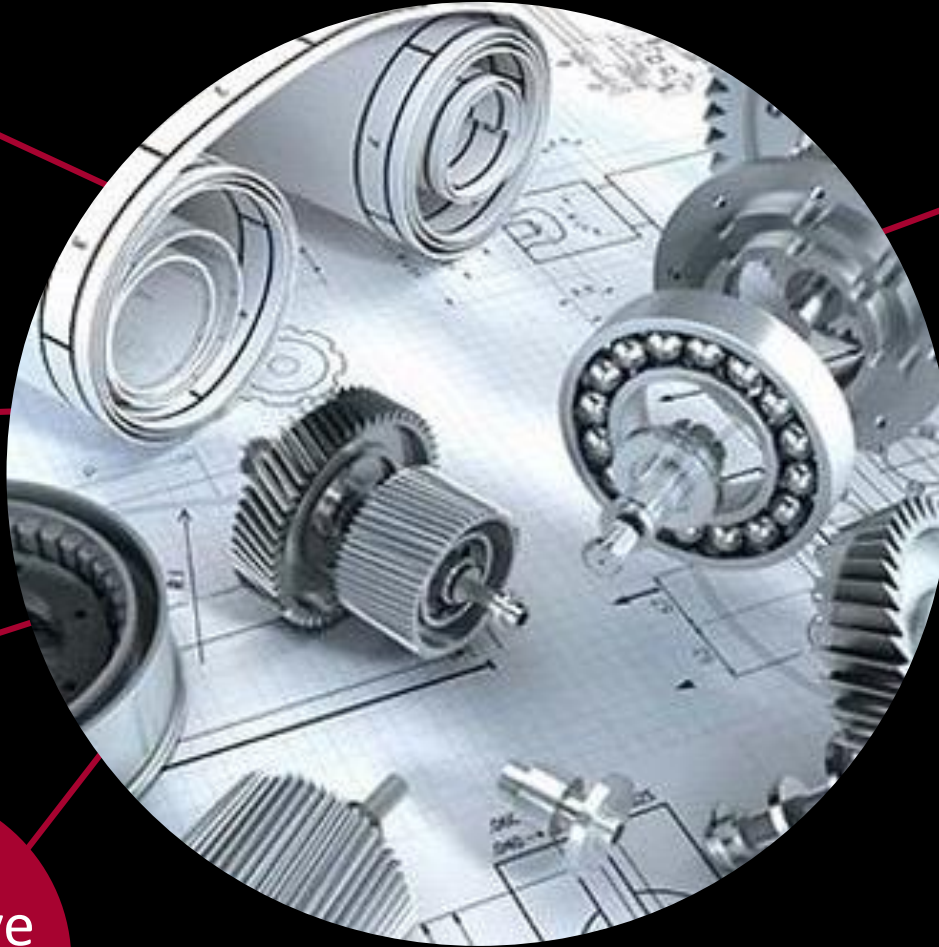
Little access
to
information

Solely based
on
productivity

Little global
impact

Tradition
& status
quo

Repetitive
work



Design an educational system

Little access
to
information

Solely based
on
productivity

Little global
impact

Driven
mostly by
competition

Tradition
& status
quo

Repetitive
work



Design an educational system

Little access
to
information

Solely based
on
productivity

Little global
impact

Driven
mostly by
competition

Tradition
& status
quo

Elite

Repetitive
work





Design an educational system



Design an educational system

Constant
access to
information



Design an educational system

Constant
access to
information

Possibility
for global
impact



Design an educational system

Constant
access to
information

Possibility
for global
impact

Personal
work path



Design an educational system

Constant
access to
information

Innovation
driving force
of economy

Possibility
for global
impact

Personal
work path



Design an educational system

Constant
access to
information

Innovation
driving force
of economy

Possibility
for global
impact

Collaboration

Personal
work path



Design an educational system



Constant
access to
information

Innovation
driving force
of economy

Possibility
for global
impact

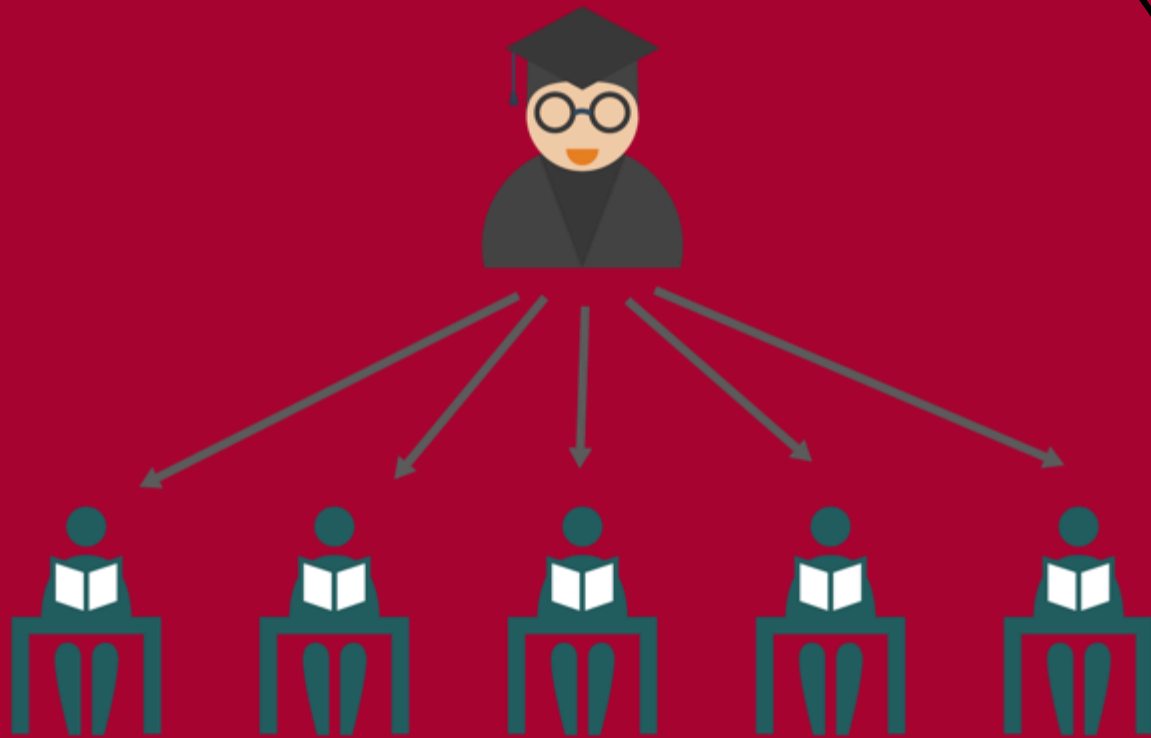
Collaboration

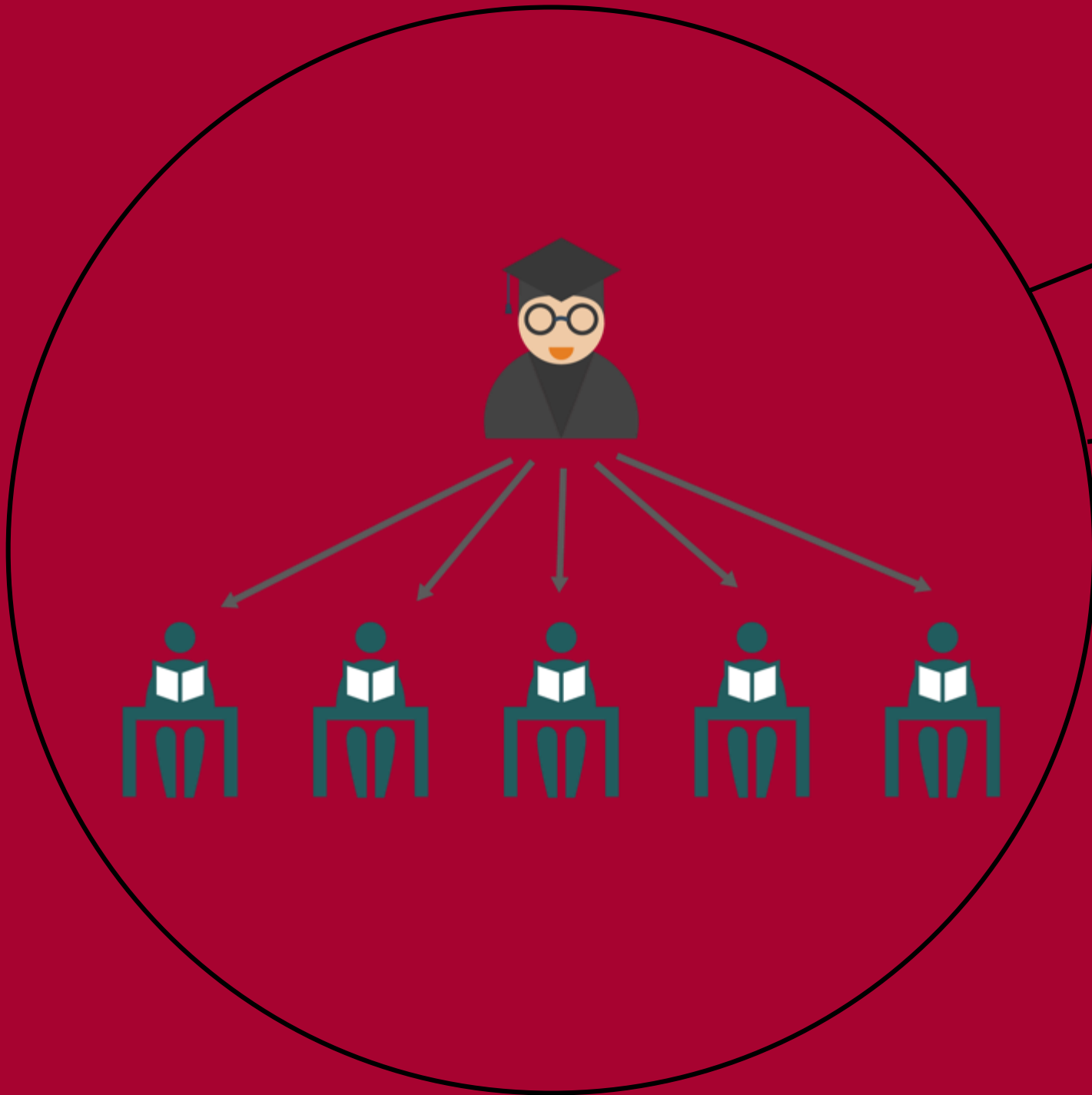
Personal
work path

Collective
intelligence



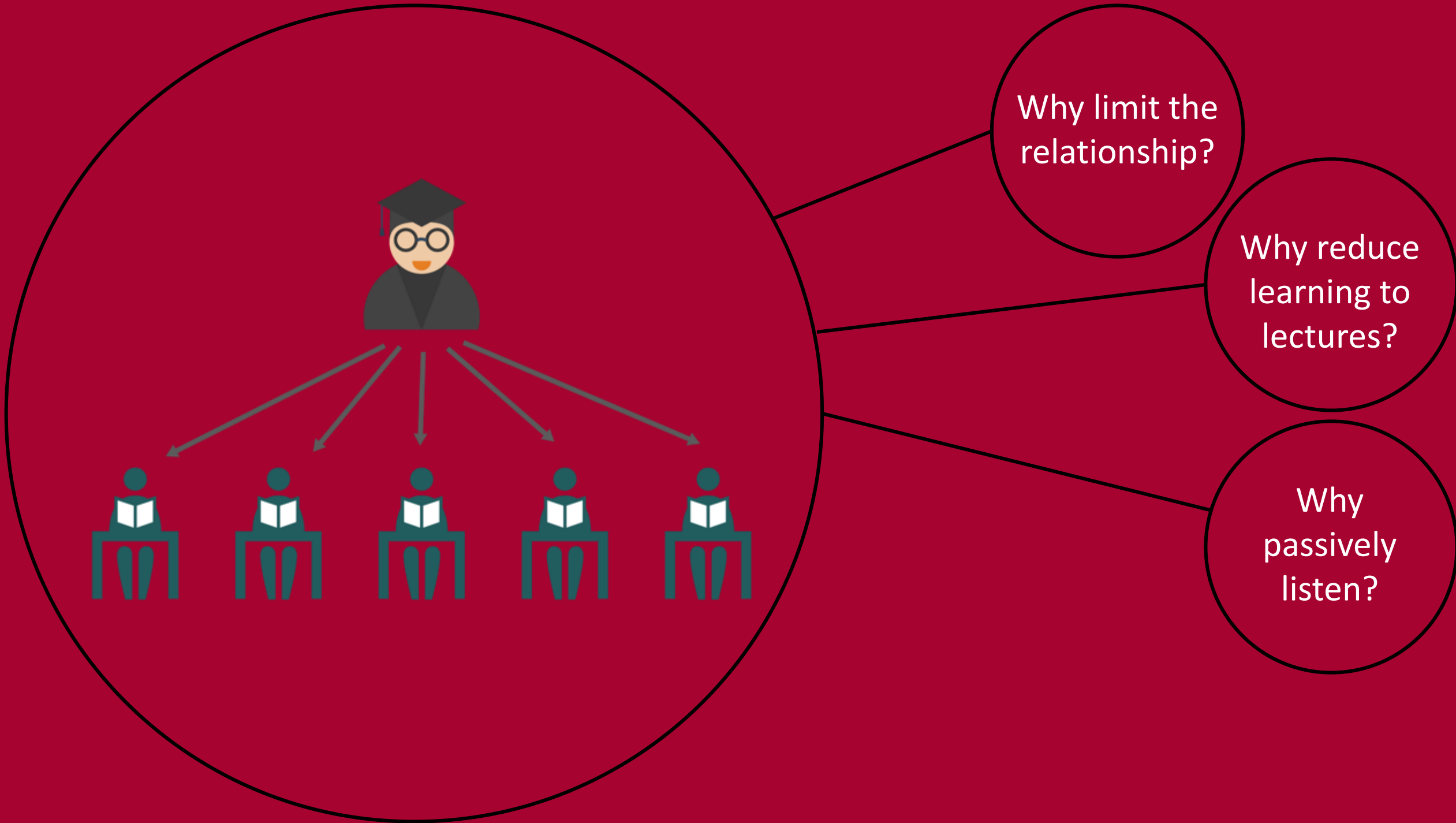
Why limit the
relationship?

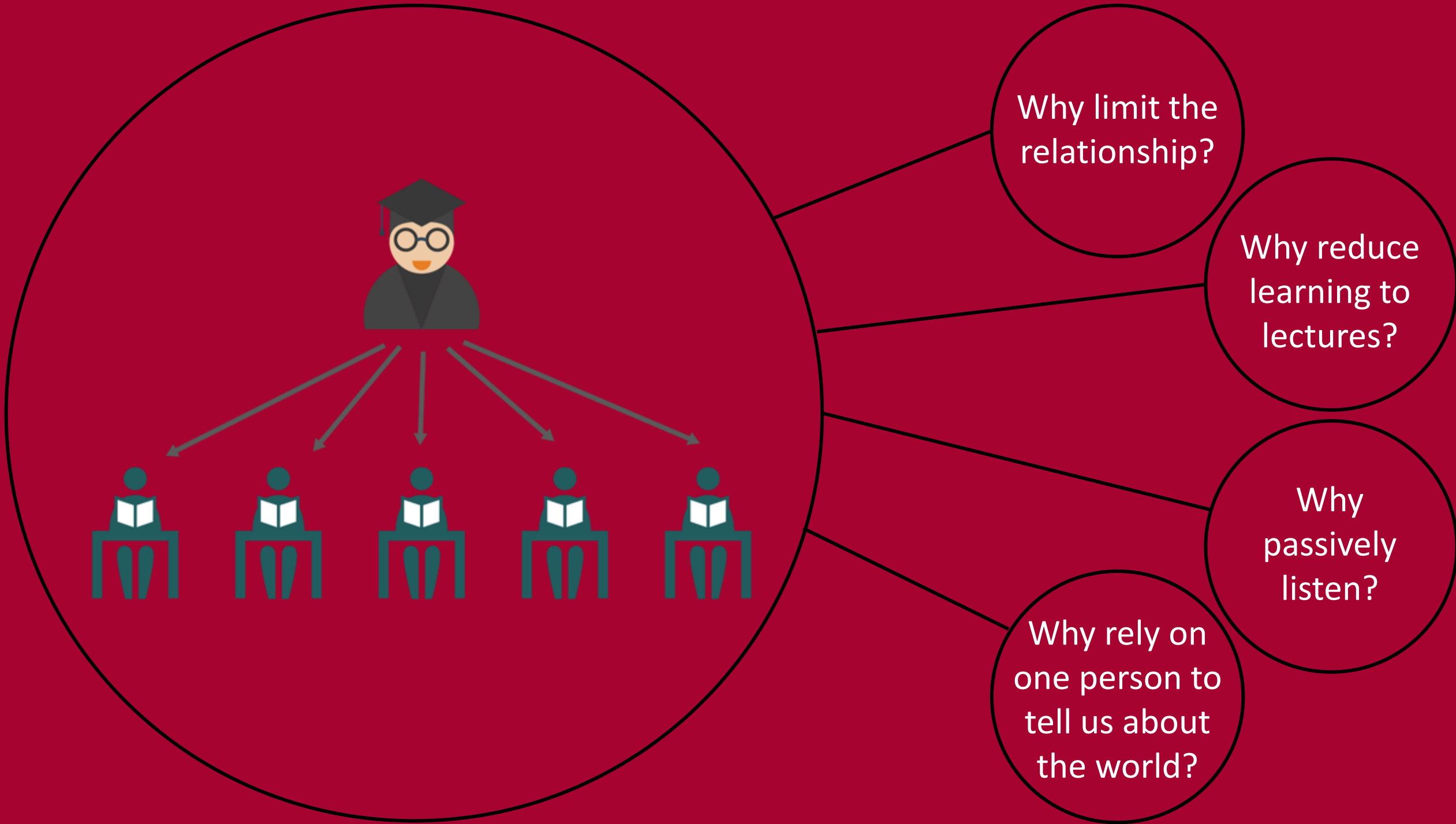




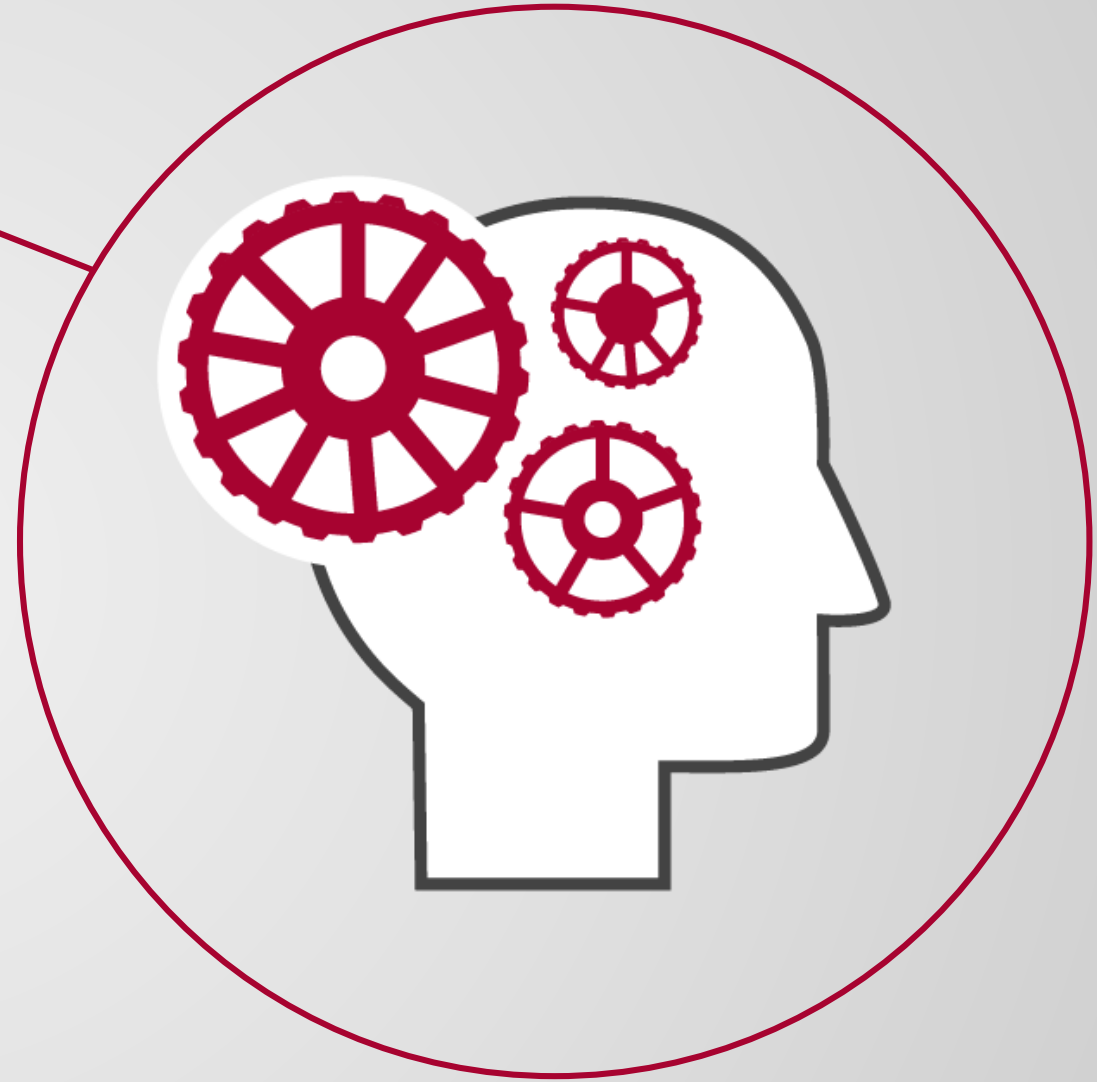
Why limit the relationship?

Why reduce learning to lectures?



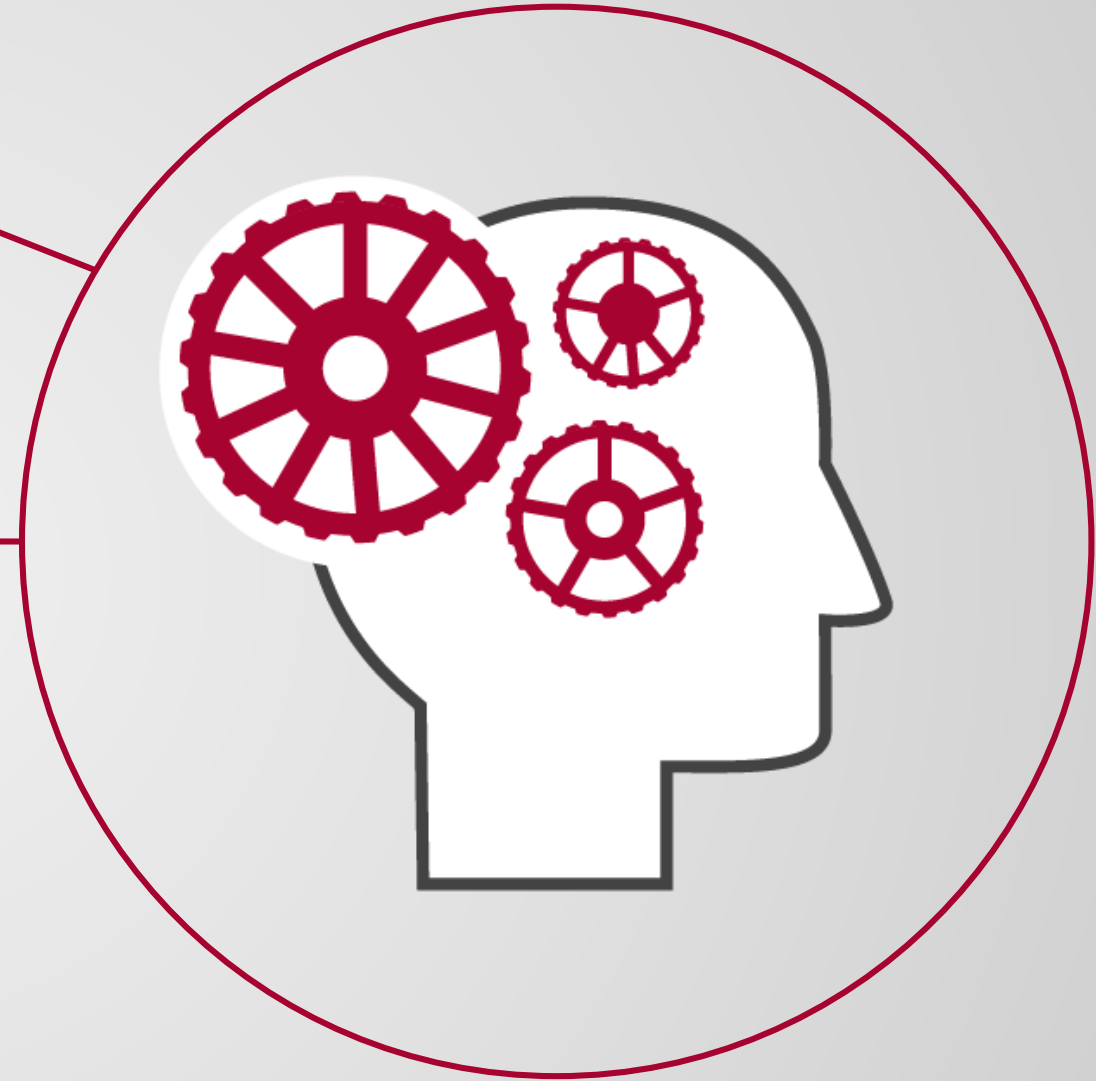


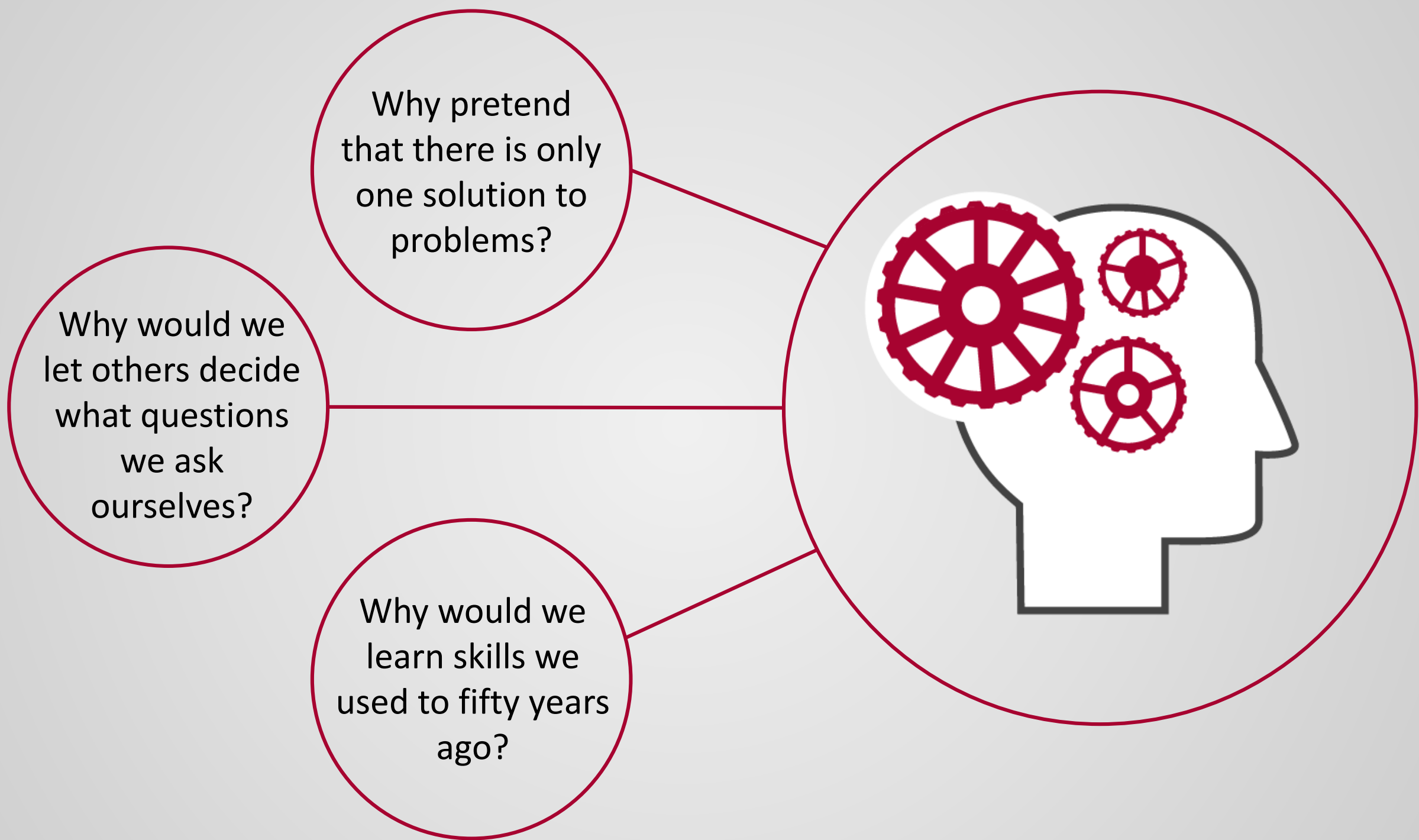
Why pretend
that there is only
one solution to
problems?



Why would we
let others decide
what questions
we ask
ourselves?

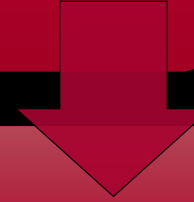
Why pretend
that there is only
one solution to
problems?





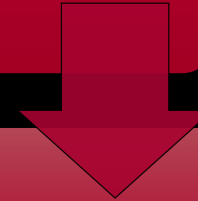
DOK level 1

recall and reproduction



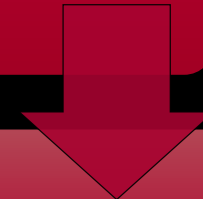
DOK level 2

Basic application of skills and concepts



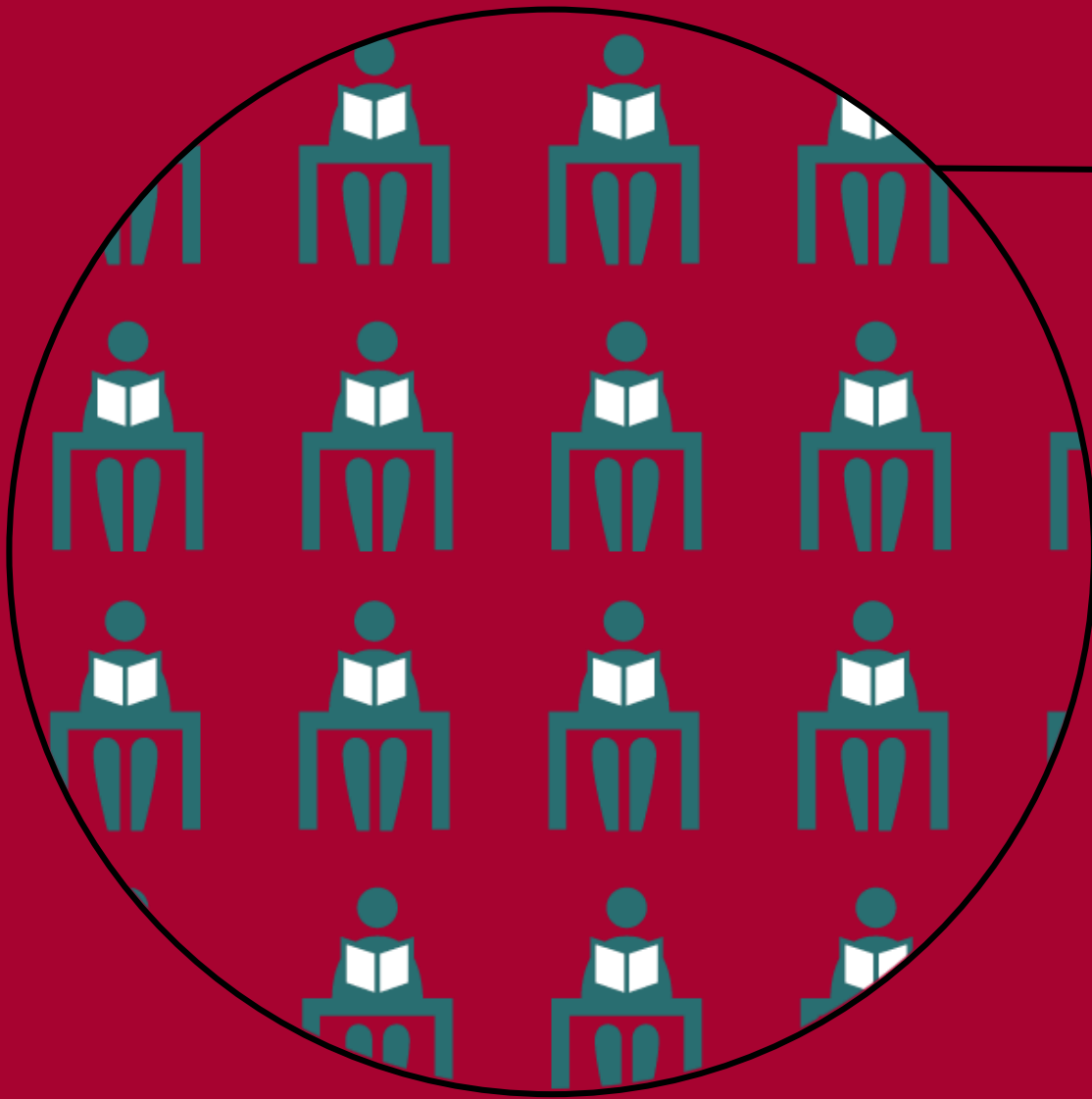
DOK level 3

Strategic thinking



DOK level 4

Extended thinking

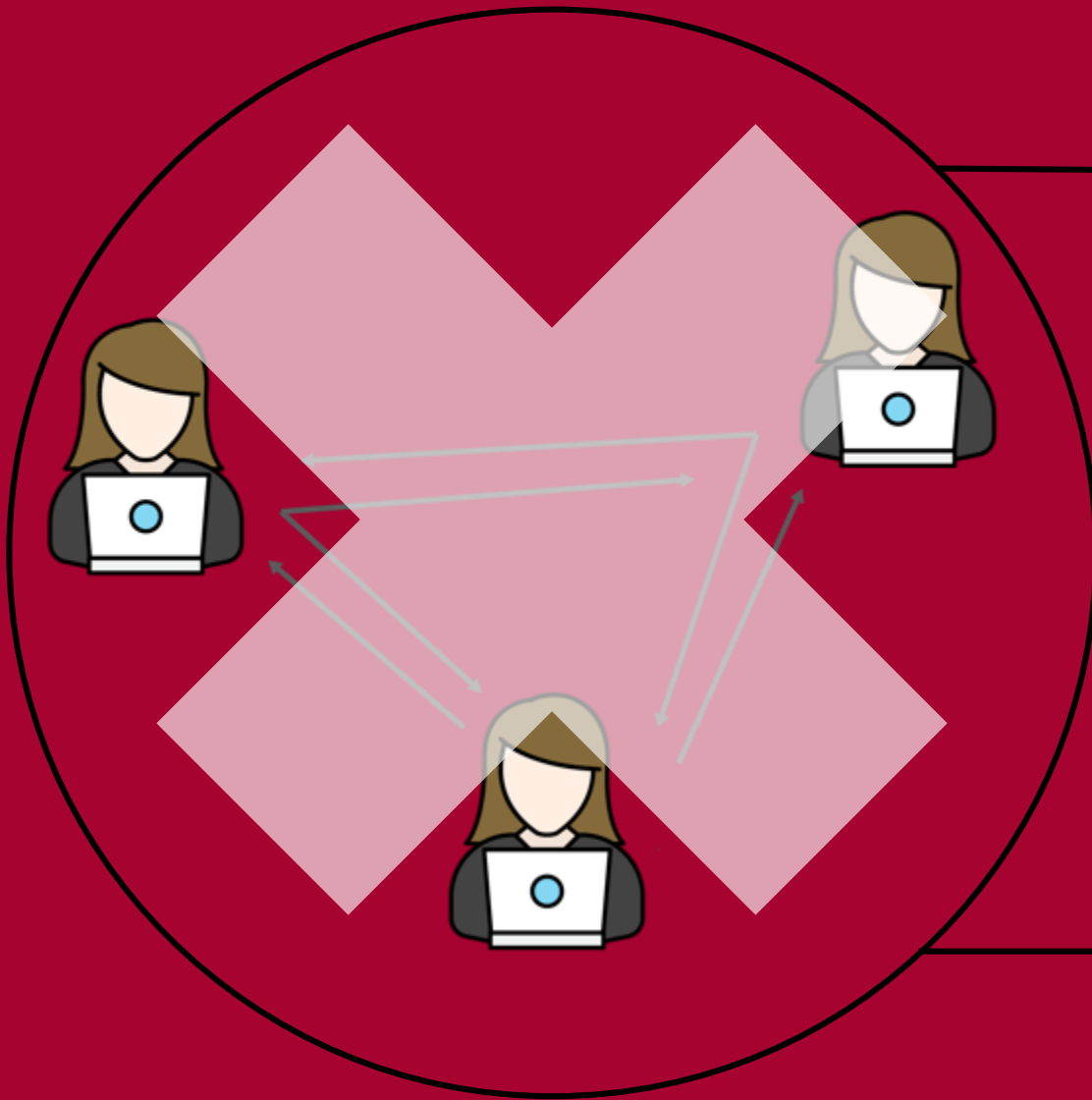


Why learn the
same thing as
your neighbor and
pretend to be the
same?



Why ask a student
to make an
irrevocable choice
at 18?

Why learn the
same thing as
your neighbor and
pretend to be the
same?



Why ask a student
to make an
irrevocable choice
at 18?

Why learn the
same thing as
your neighbor and
pretend to be the
same?

Why consider
collaboration to
be cheating?

Is such a behavior suitable?

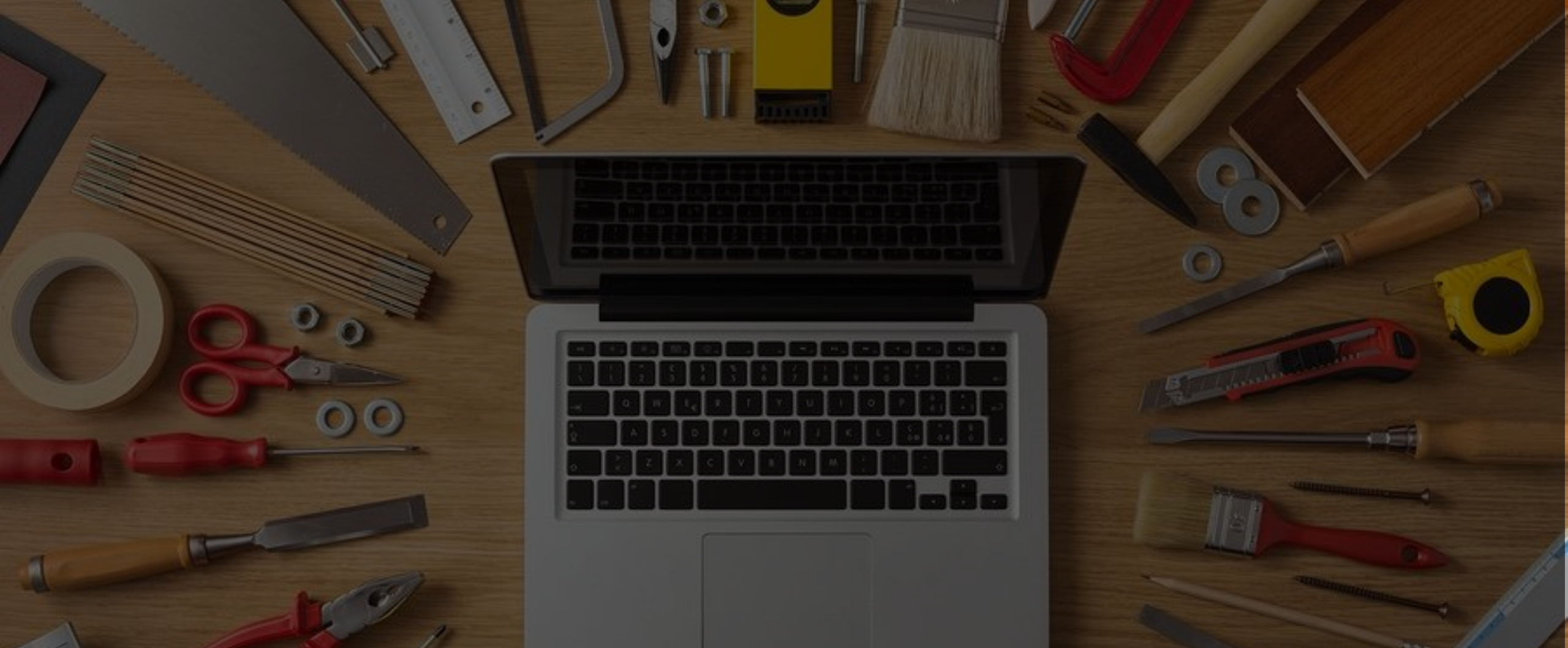


Is such a behavior suitable?



To solve our world's crises





We have the tools to solve all that, the tool is not the problem anymore





People

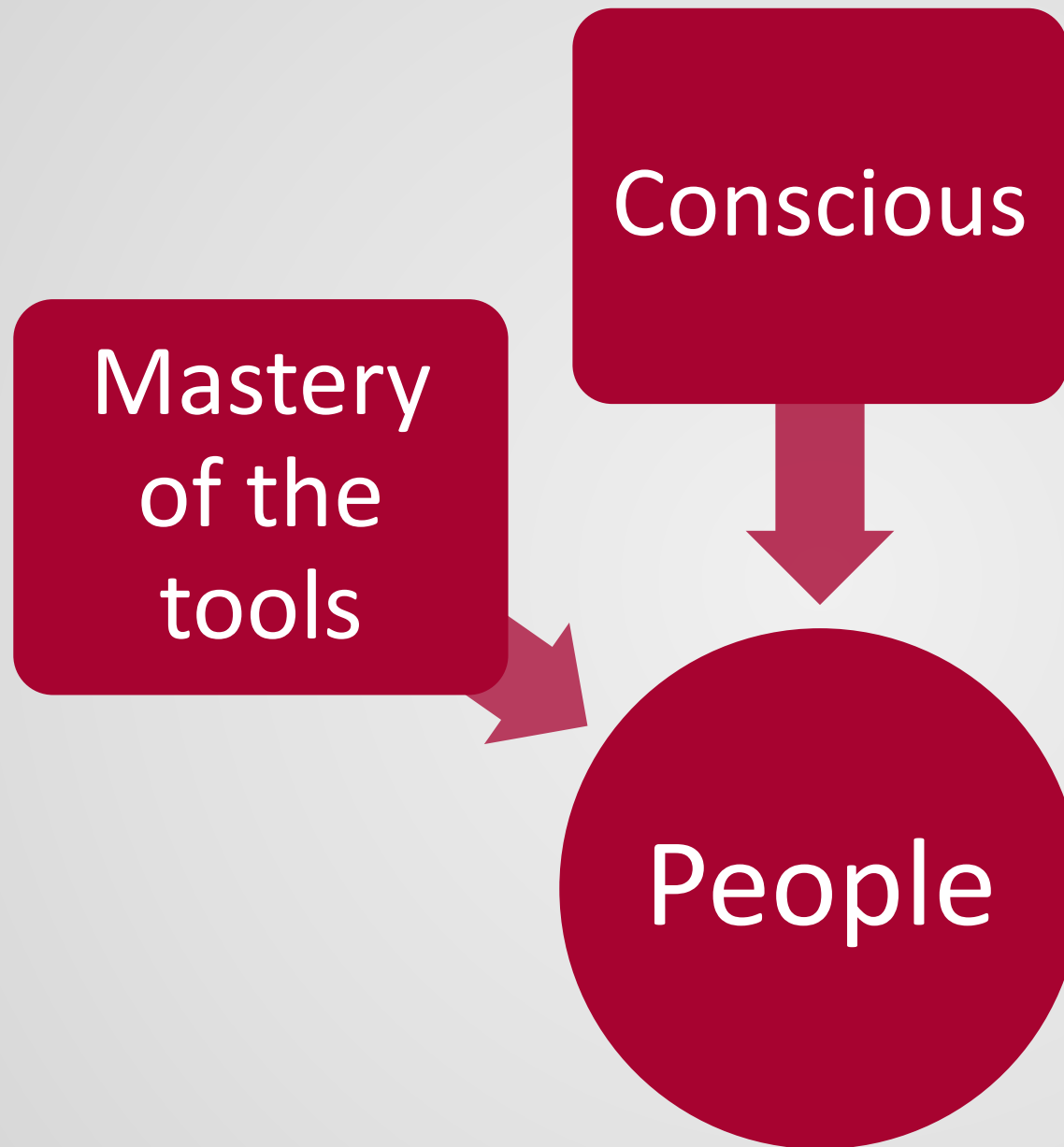
Mastery
of the
tools

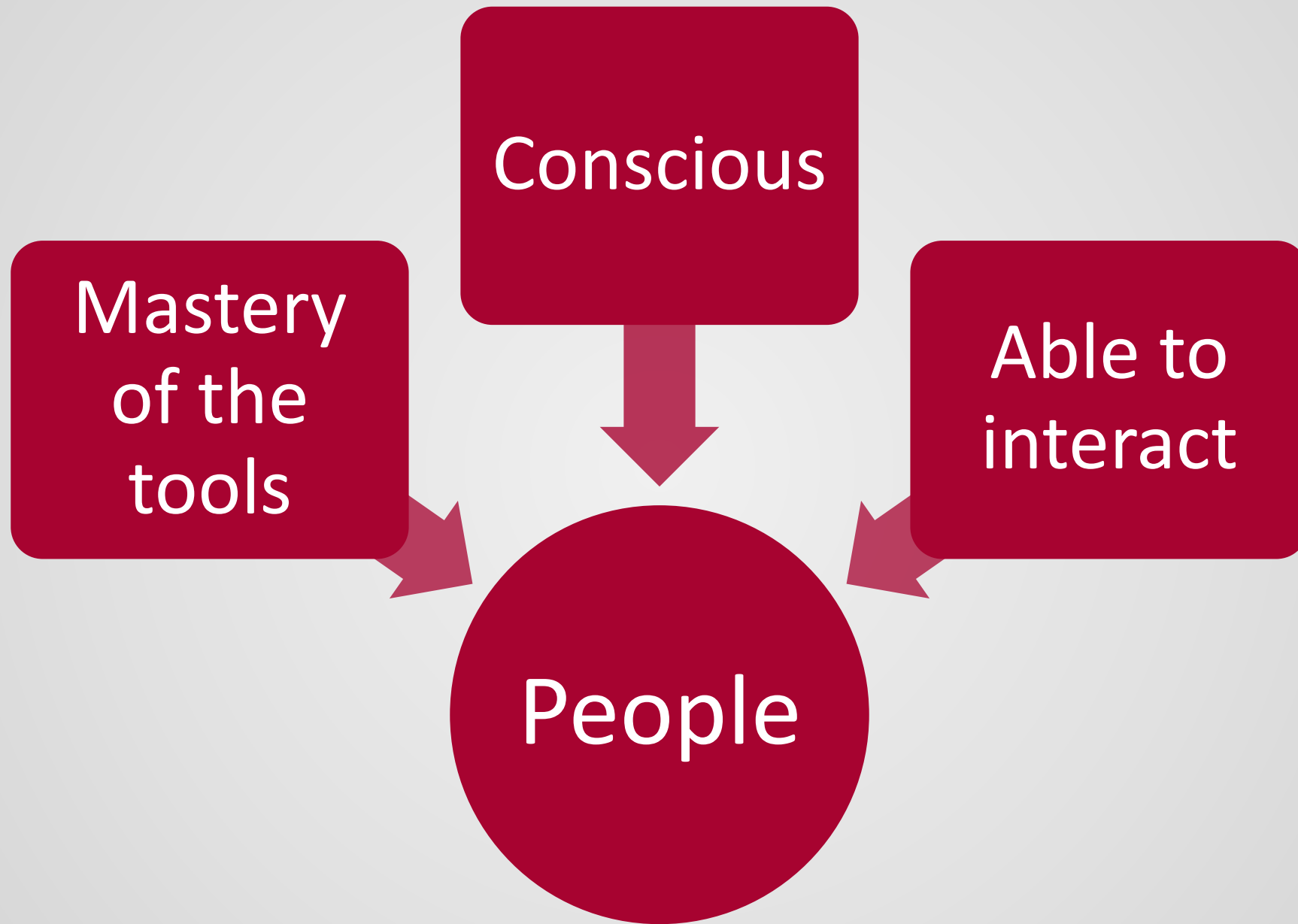



```
graph LR; A[Mastery of the tools] --> B((People))
```

A diagram consisting of a red rounded rectangle on the left containing the text 'Mastery of the tools' and a red circle on the right containing the text 'People'. A red arrow points from the right side of the rectangle to the left side of the circle.

People







One answer
One solution



Witness



Witness



Guinea pig



Witness



Guinea pig



Staff



No teachers



No teachers



No classes



No teachers



No classes



No schedules



No age/year ranking



No age/year ranking



No single program



No age/year ranking



No single program



Cultural and social diversity

44



42

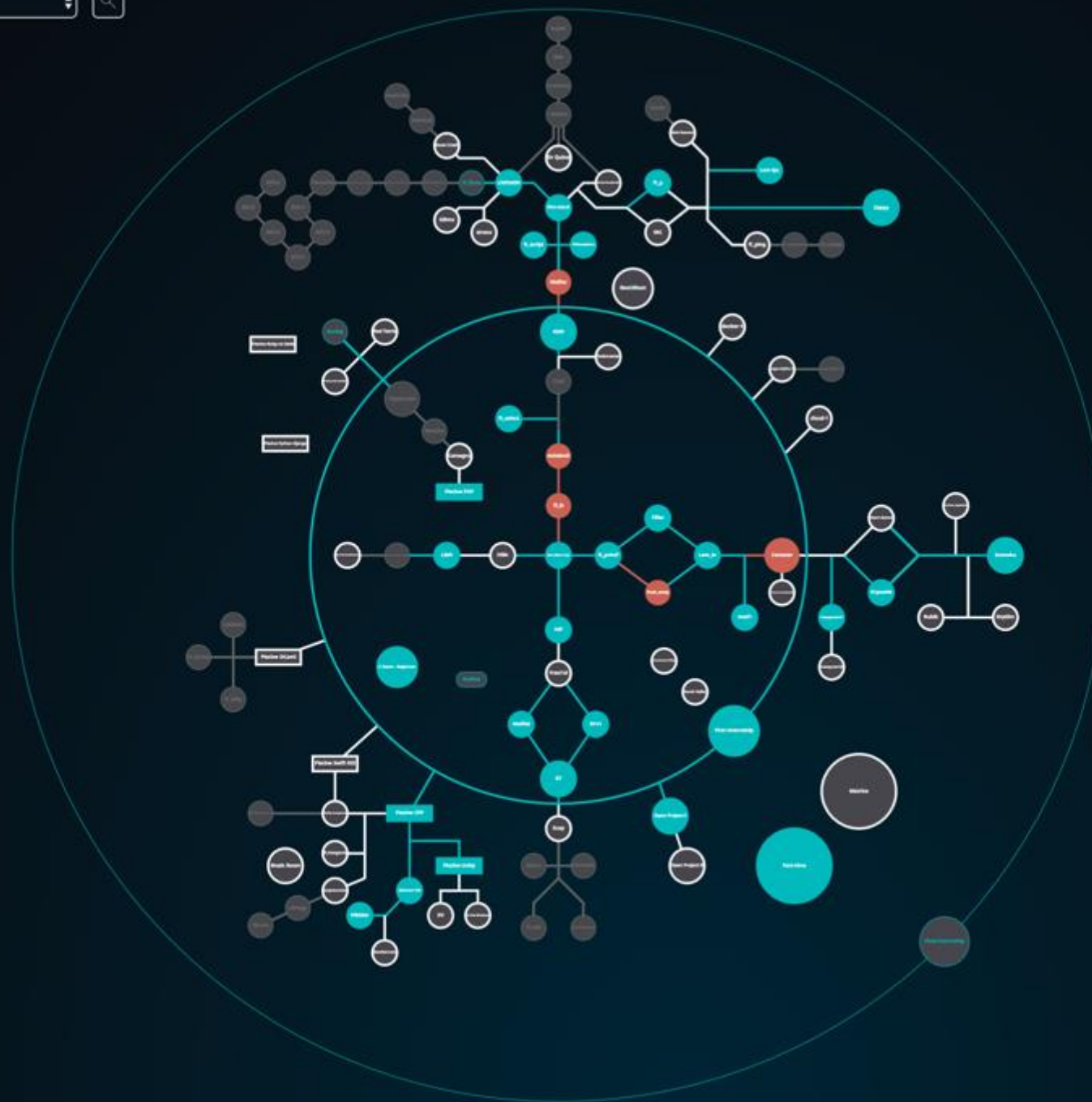
Physical place



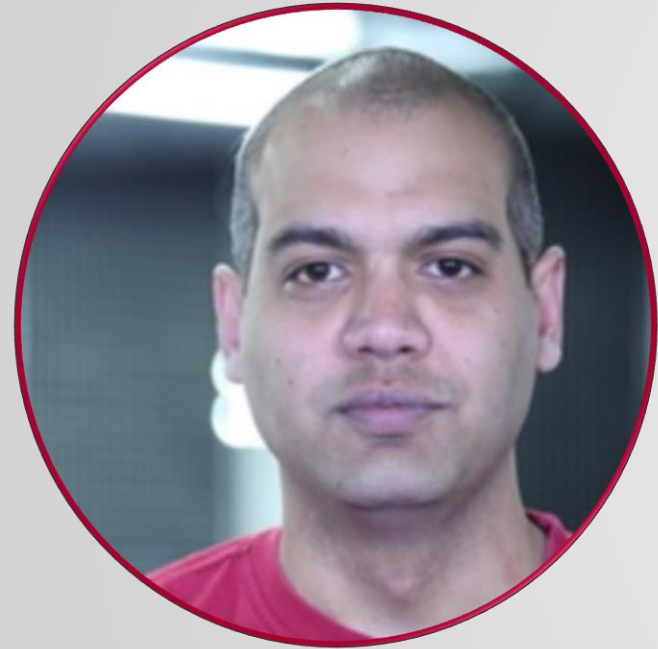
42

Virtual place

Paris

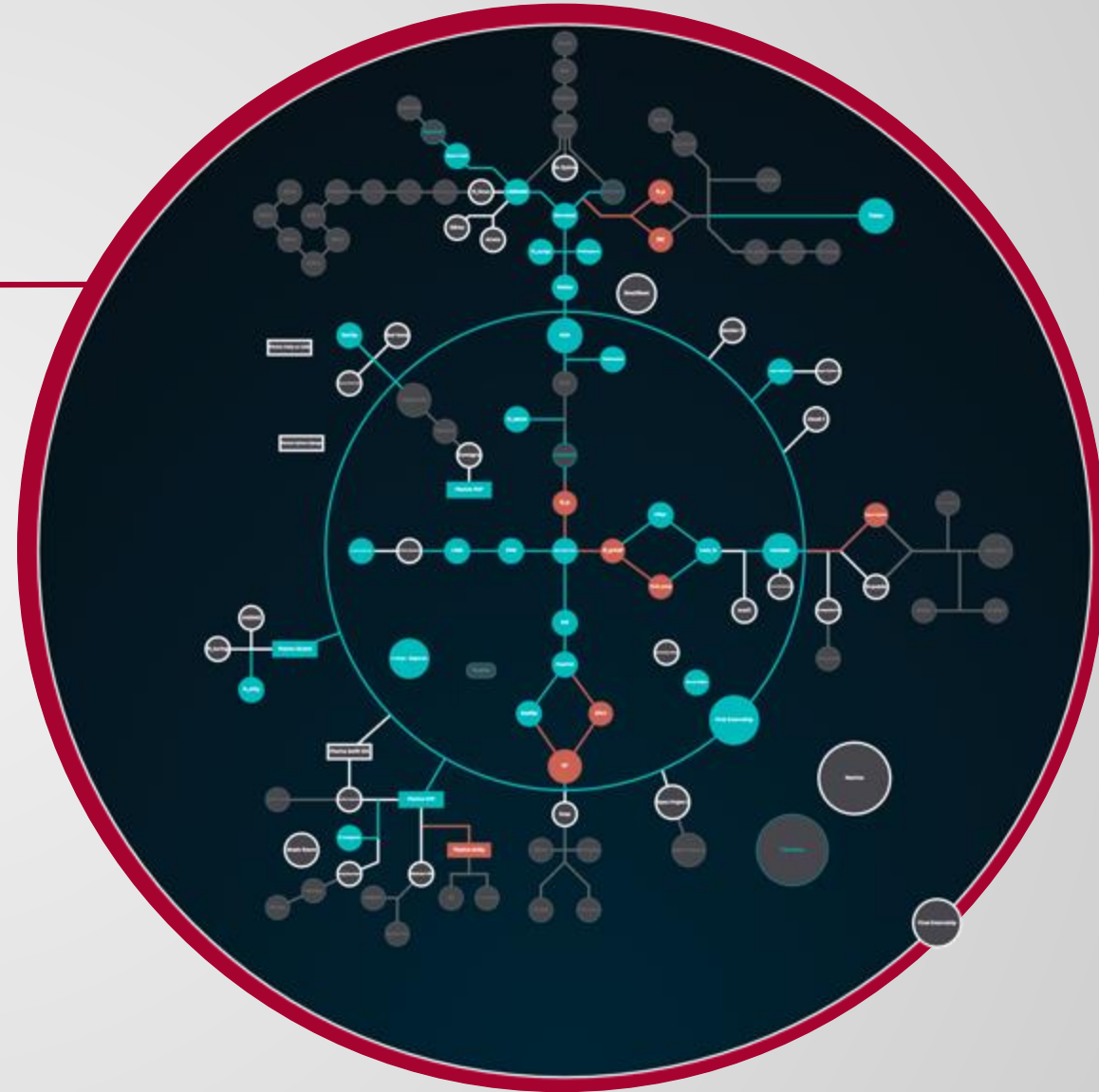


Adam Goomany

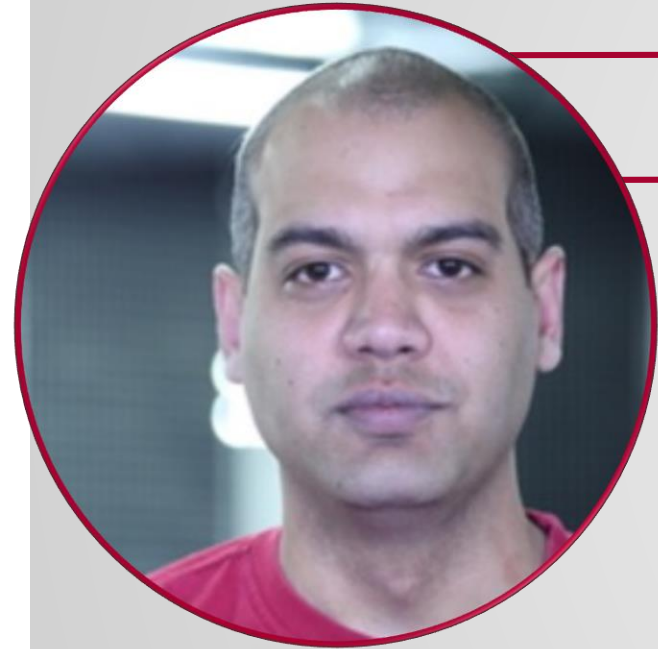


Adam Goomany

Own path and time frame



Adam Goomany



Own path and time frame

Levels and ranks

Grade
Captain

level 17 - 96%

Short description

5 minutes videos

Specifications



T2 - solo - about 2 week

- ☐ Subject
- ☐ Play with me too ! (Sierra binary)
- ☐ Play with me !

Wolf3D

[See my project page](#)

Wolf3d

Description

Inspired by the world-famous 90's game of similar naming (which was the first FPS ever). Explore the technique of ray-casting. The goal is to create a dynamic view inside of a maze. How far will you go to create the best game we have ever seen?

Objectives

- Ray-casting
- Optimization techniques
- Math

Skills

- Imperative programming
- Graphics
- Algorithms & AI

Created by [ol](#)

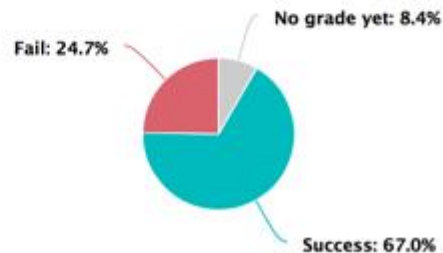
159 users currently registered (16 retries)

256 users can subscribe and never did

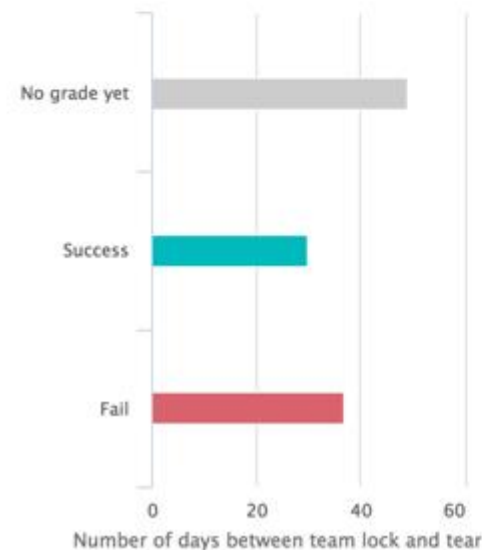
1756 users registered in 2288 teams ever

Finished 2120 times

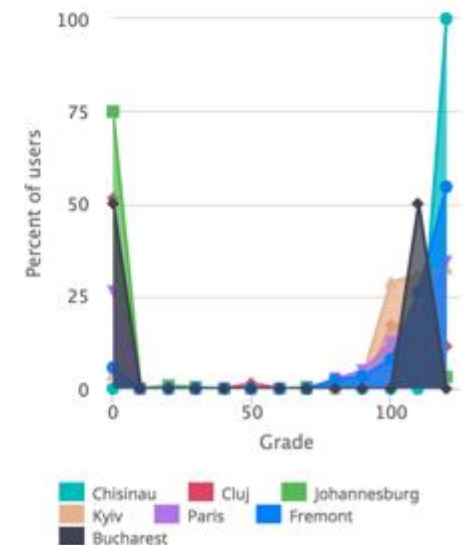
Success Rate



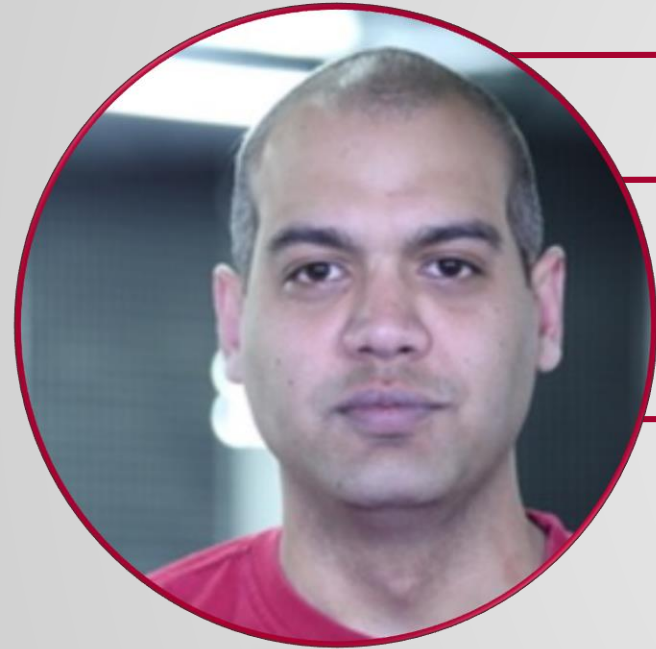
Average team lifespan



Marks by campus



Adam Goomany



Own path and time frame

Levels and grades

Gamified projects

Peer-to-peer interaction





Adam Goomany – agoomany

Wallet
220 ACorrection points
5Cursus
42 ↕Grade
CaptainE.T.E.C.
in a year

level 17 - 96%

+33 6 51 37 97 76

agoomany@student.42.fr

Paris

MARKS

ACHIEVEMENTS

PATRONAGES

FORUM

CLOSES 2

CURSUS

NOTES 0

Piscine PHP a year ago ▾

✓ 56

Rushes 3 years ago ▾

Piscine CPP a year ago ▾

✓ 94

First Internship 7 months ago ▾

✓ 114

Part-time 2 years ago ▾



Piscine OCaml a year ago ▾

✓ 94

Piscine Unity a year ago ▾

✗ 0

42 Commandements 5 months ago

✓ 100

42sh 8 months ago ▾

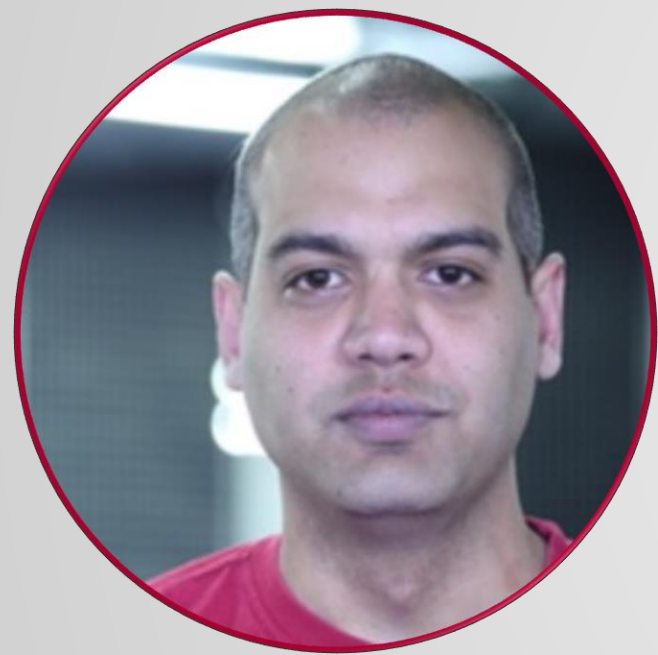
✓ 75

Big Web Project 3 years ago

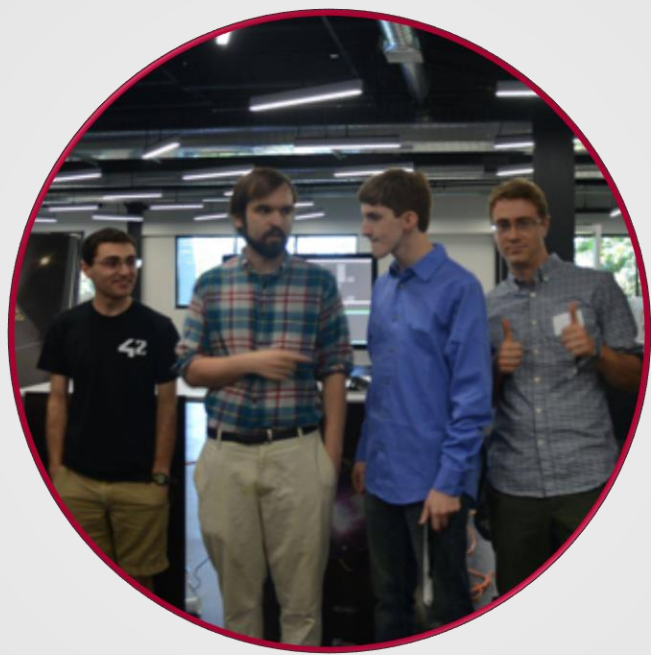
✗ 0

SKILLS



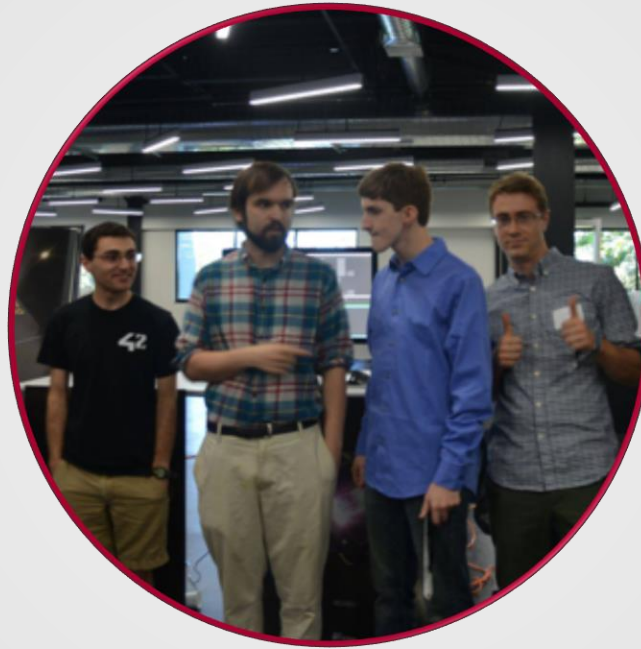


Adam Goomany



J-gravity team

J-gravity Team



Freedom of projects

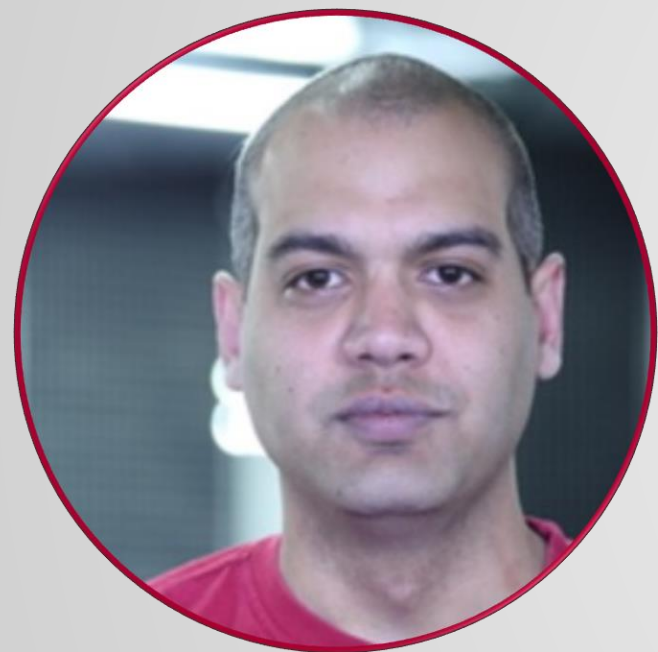
J-gravity Team



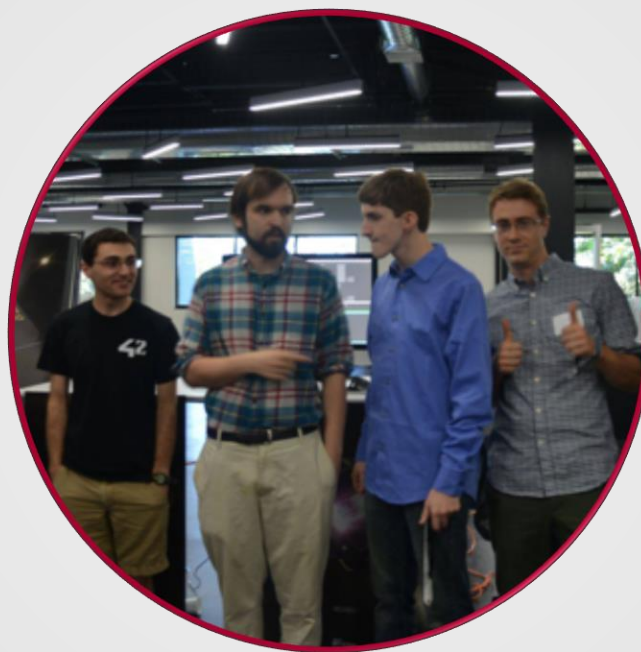
Freedom of projects



Create projects in curriculum



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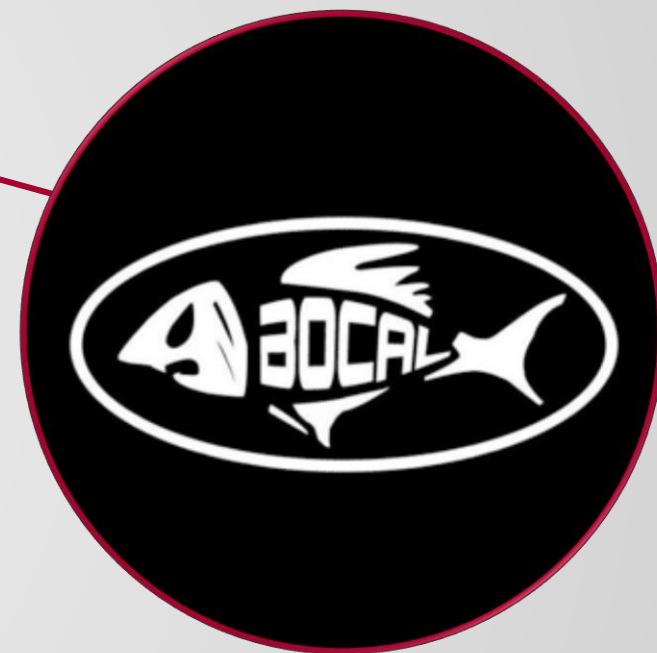


J-gravity team

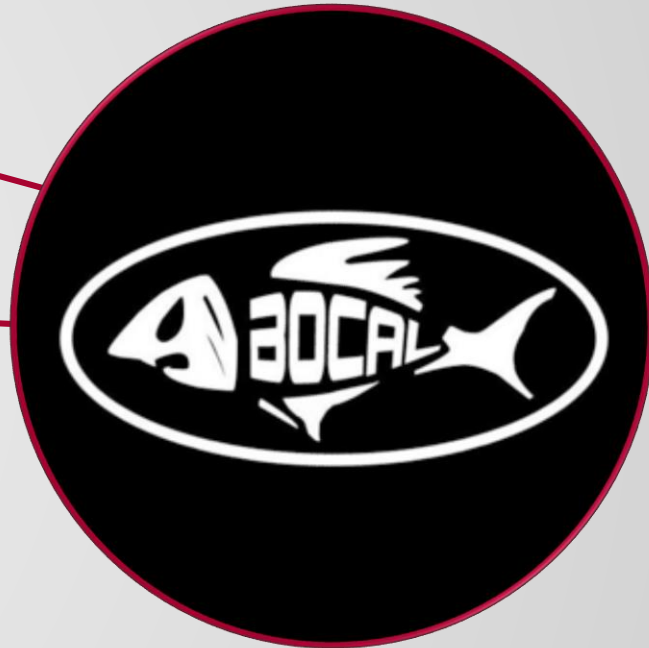


Staff

Critical thinking



Excellence

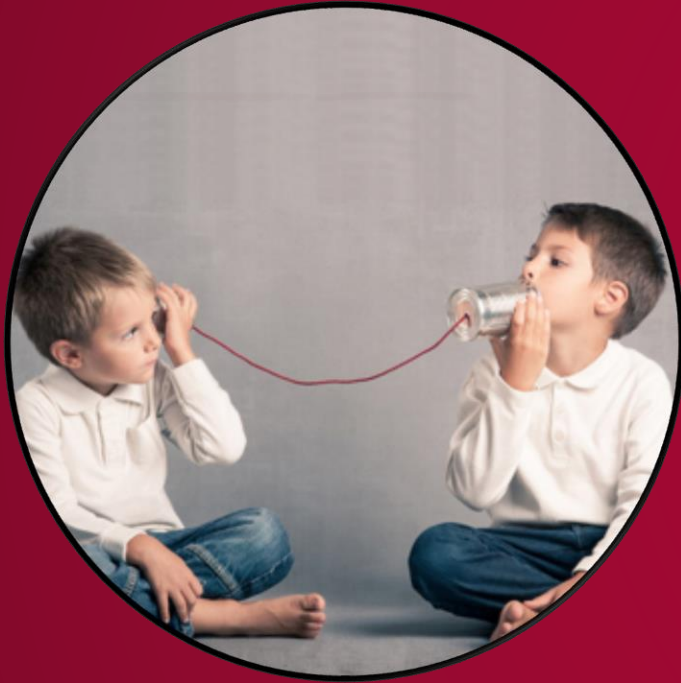


Class effort



How it answers my worries

How it answers my worries



Communication

How it answers my worries

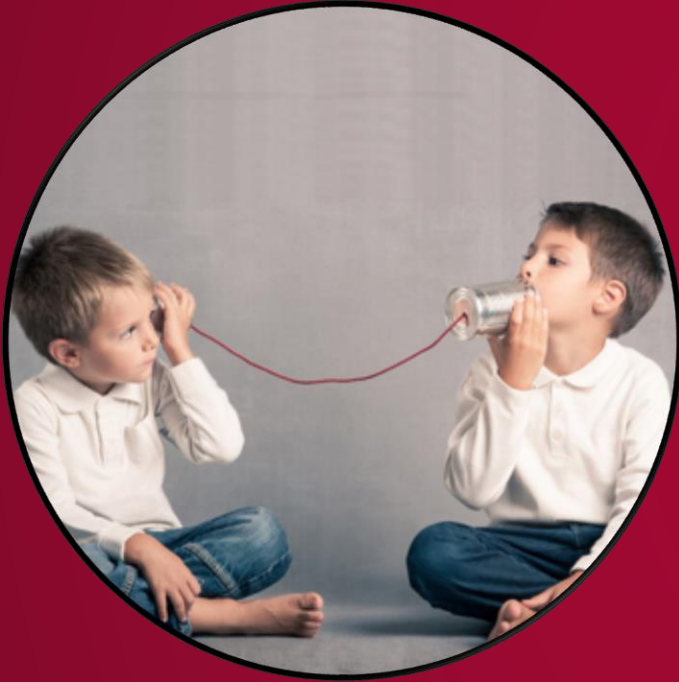


Communication



Collaboration

How it answers my worries



Communication



Collaboration

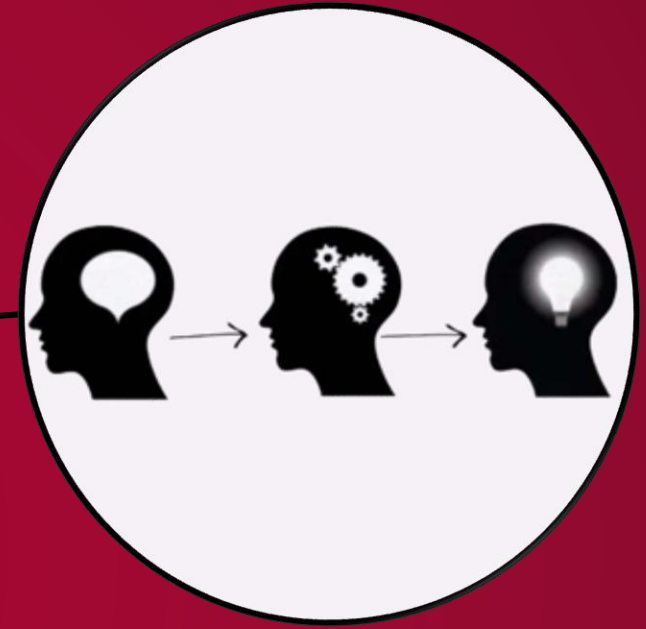
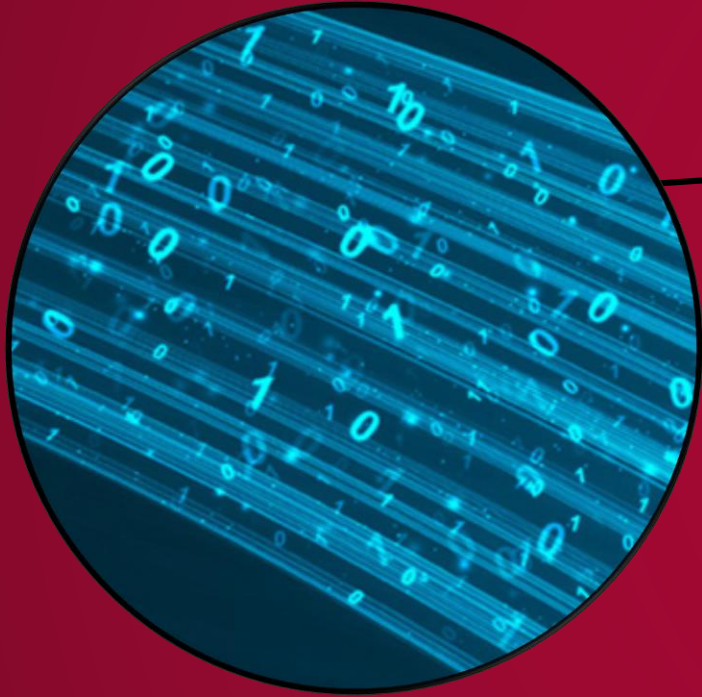


Trust

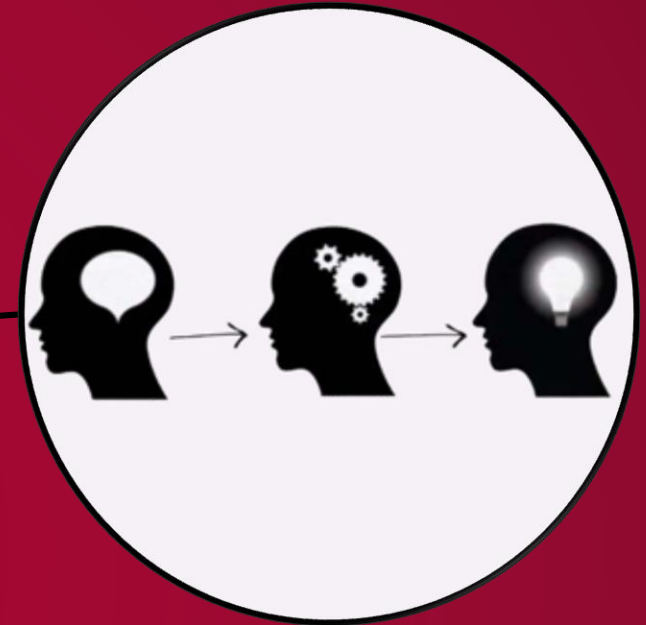
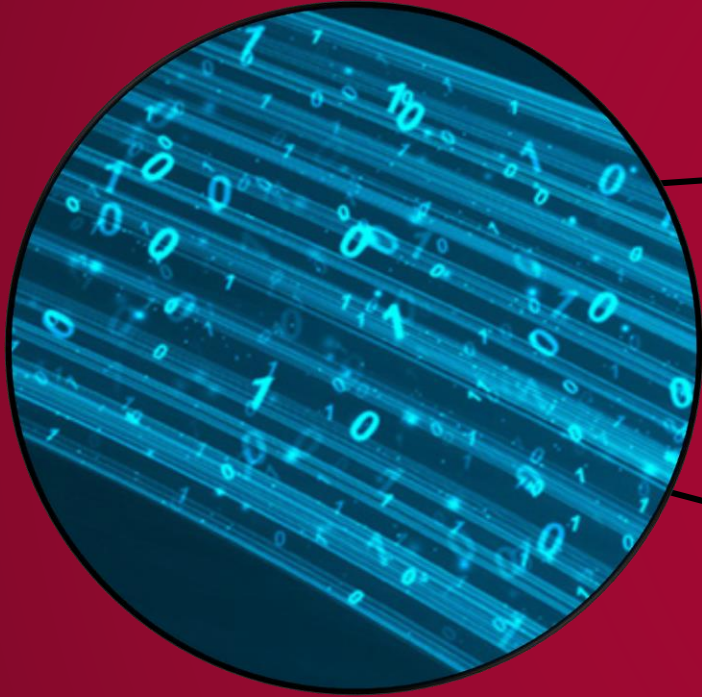
How it answers my worries



How it answers my worries



How it answers my worries

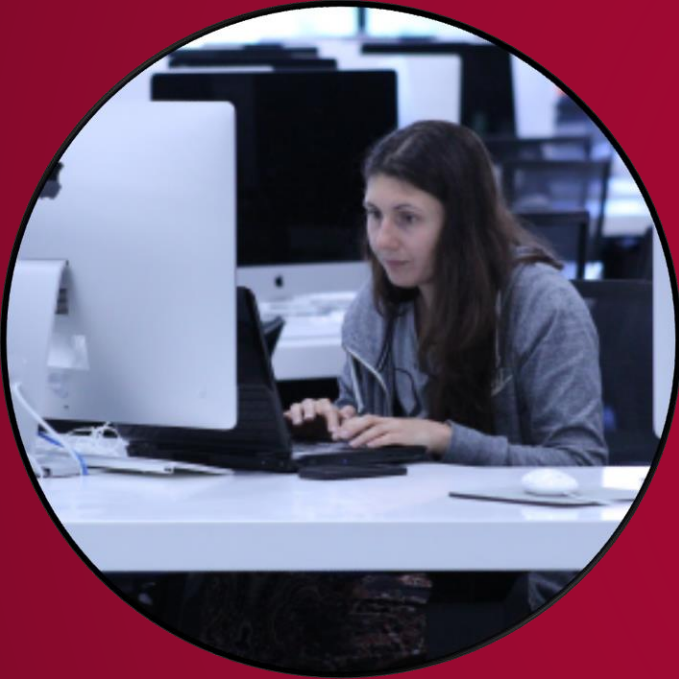


How it answers my worries



Taking responsibility

How it answers my worries



Taking responsibility



Self directing learning

How it answers my worries



Taking responsibility



Self directing learning



Conscious of environment



42

Cutting edge innovation not about teaching

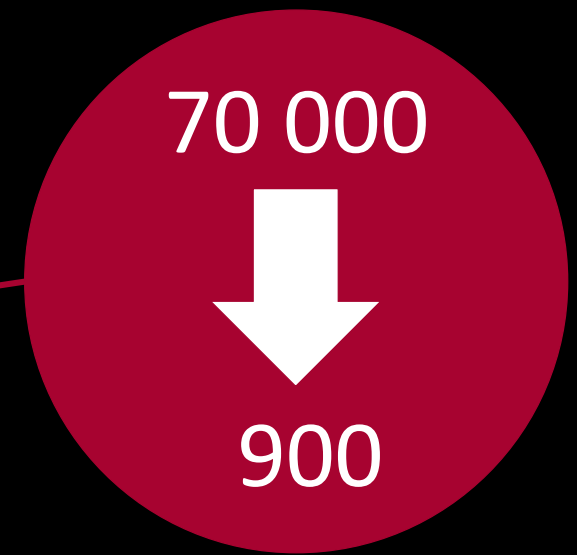
42

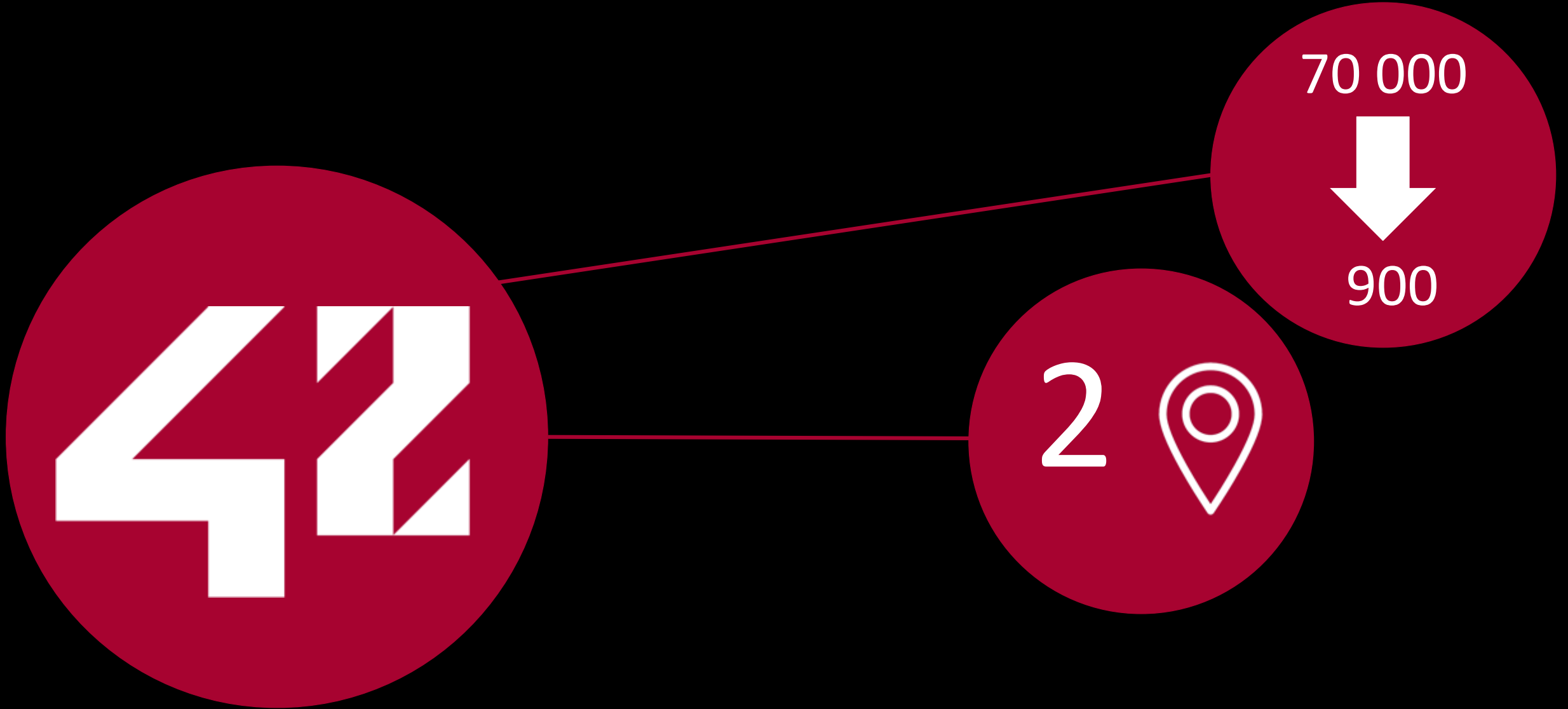
Is 42 the answer to all
the questions?

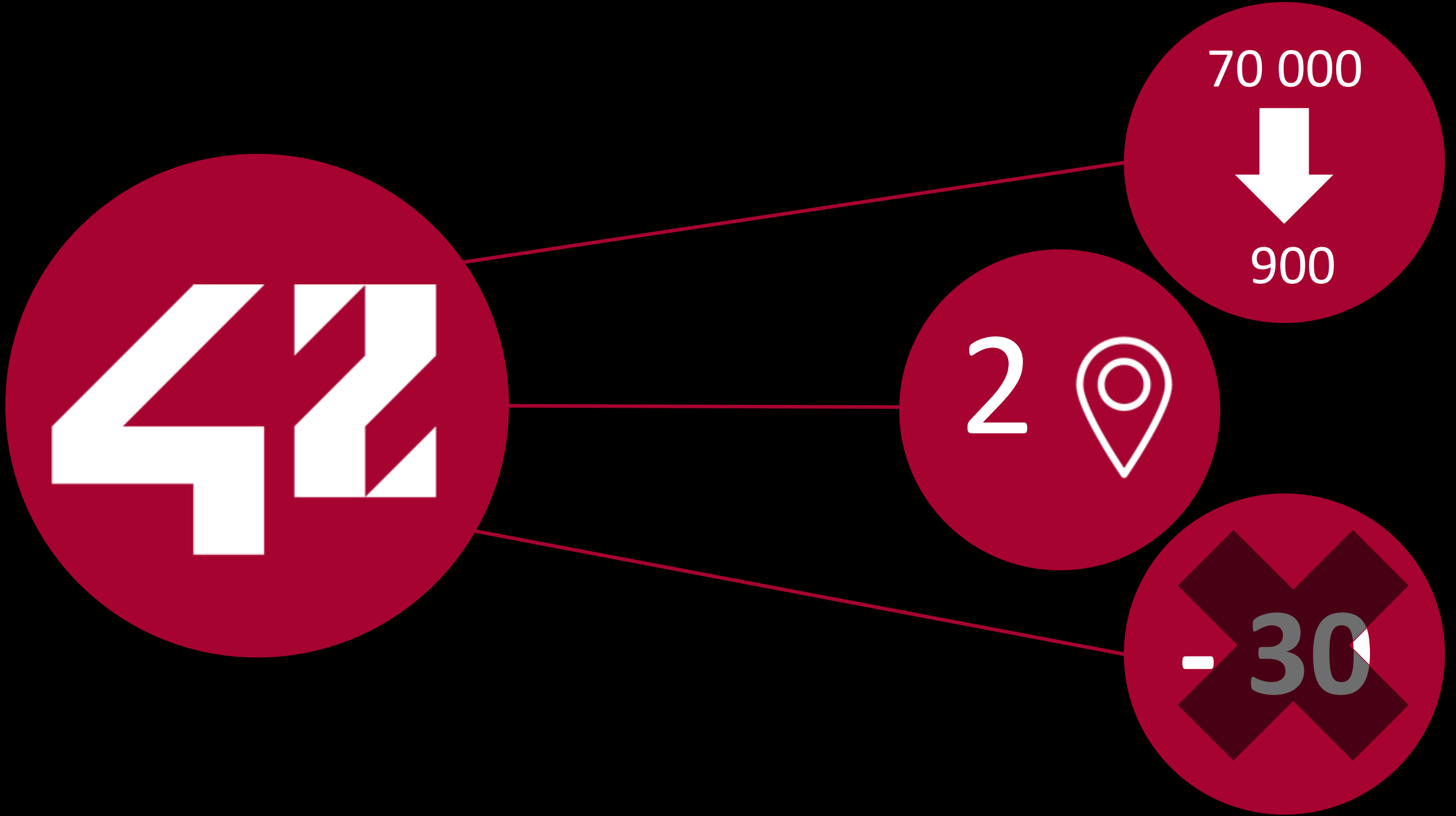
42

Is 42 the answer to all
the questions?

NO







Alumni

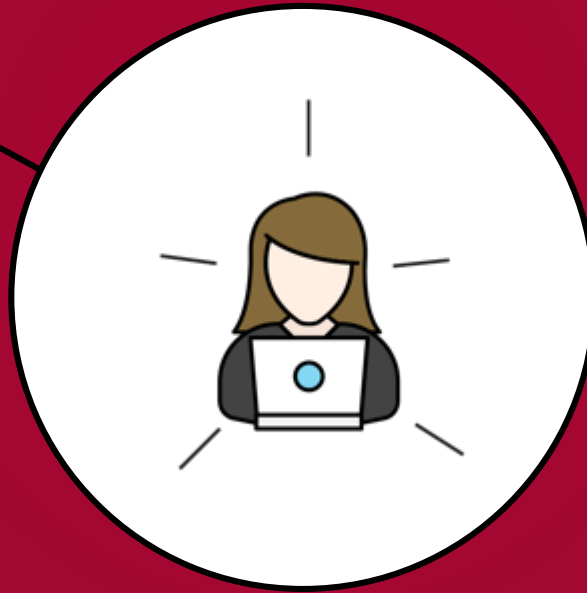


PandaScore

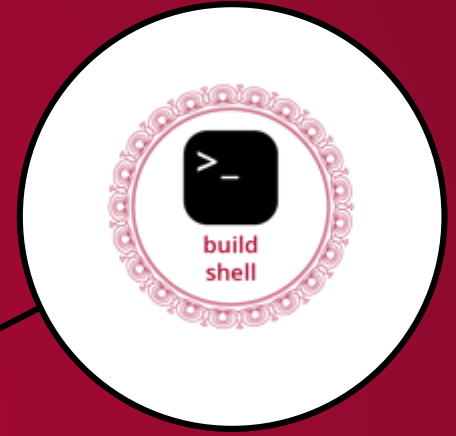
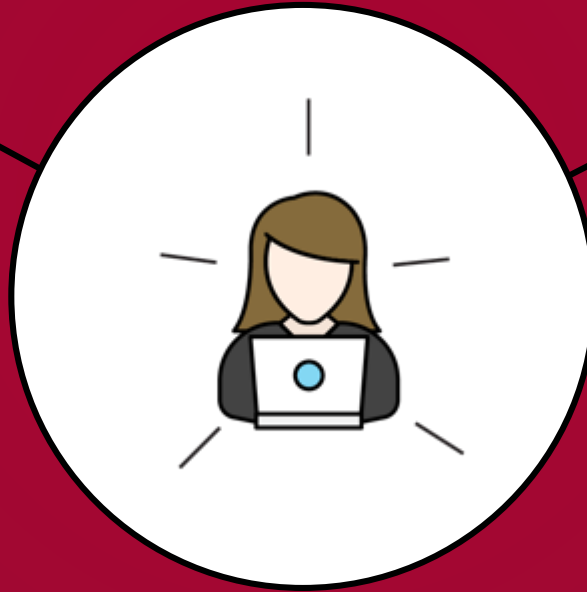
Students



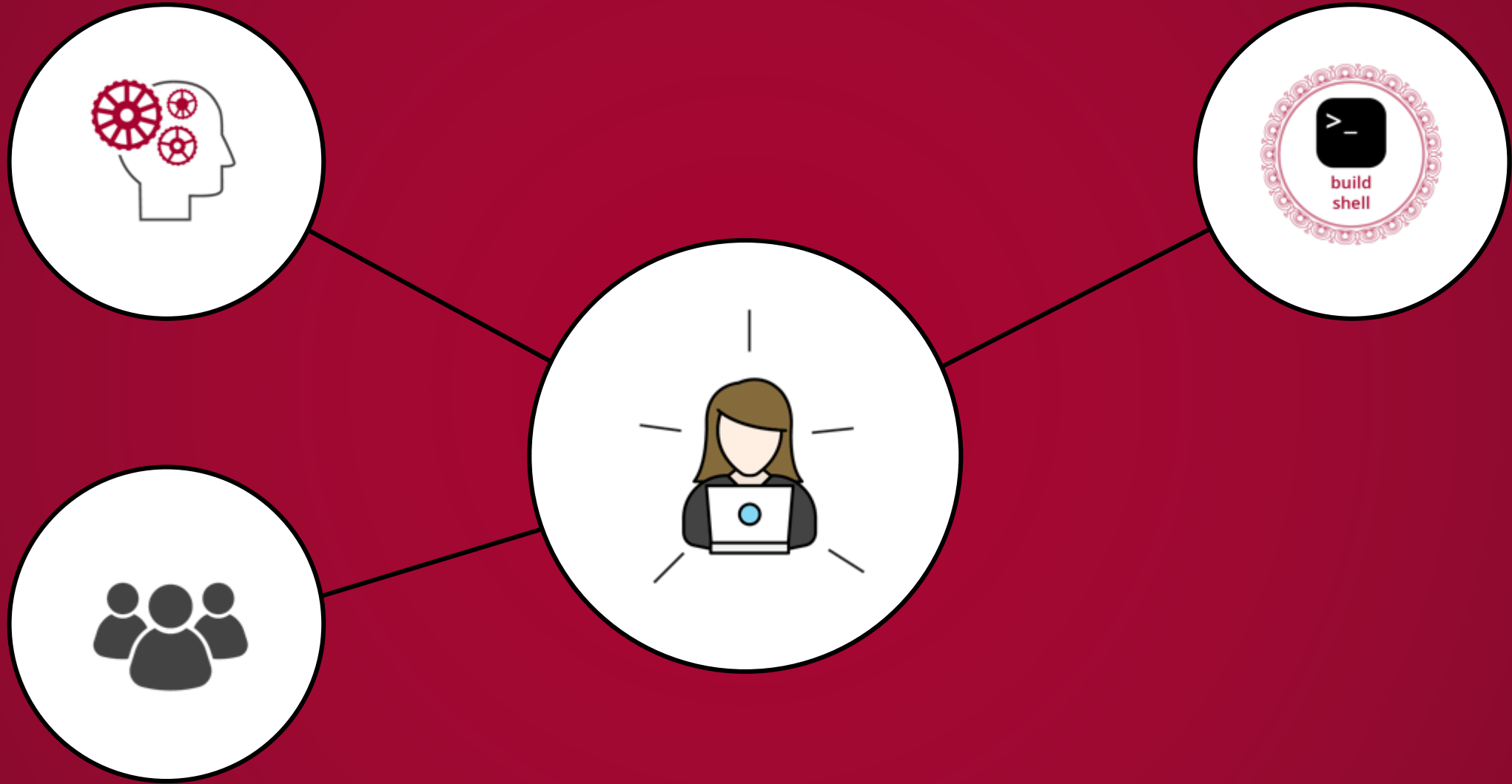
Students



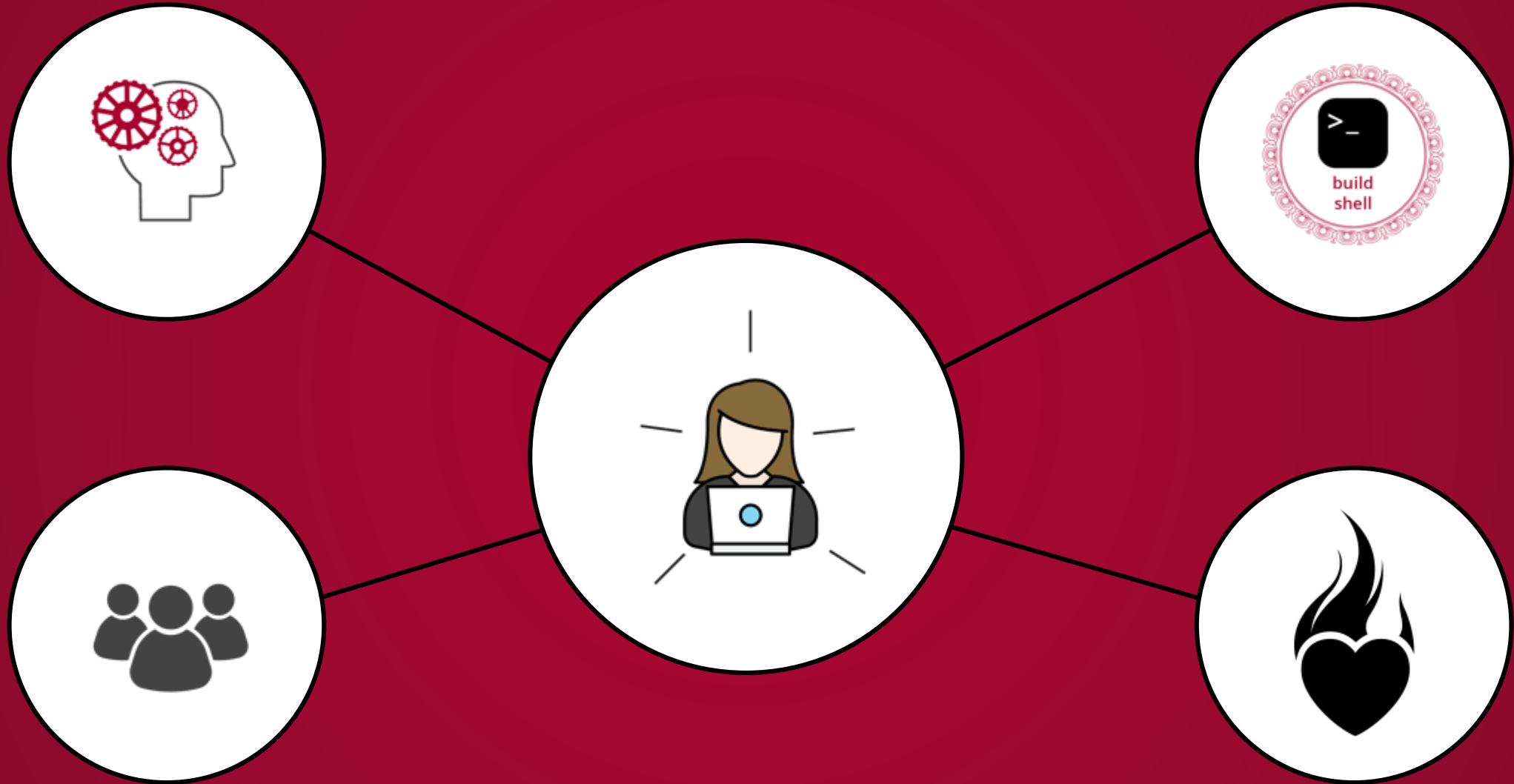
Students



Students



Students



What am I doing here?



Witness

What am I doing here?



Witness



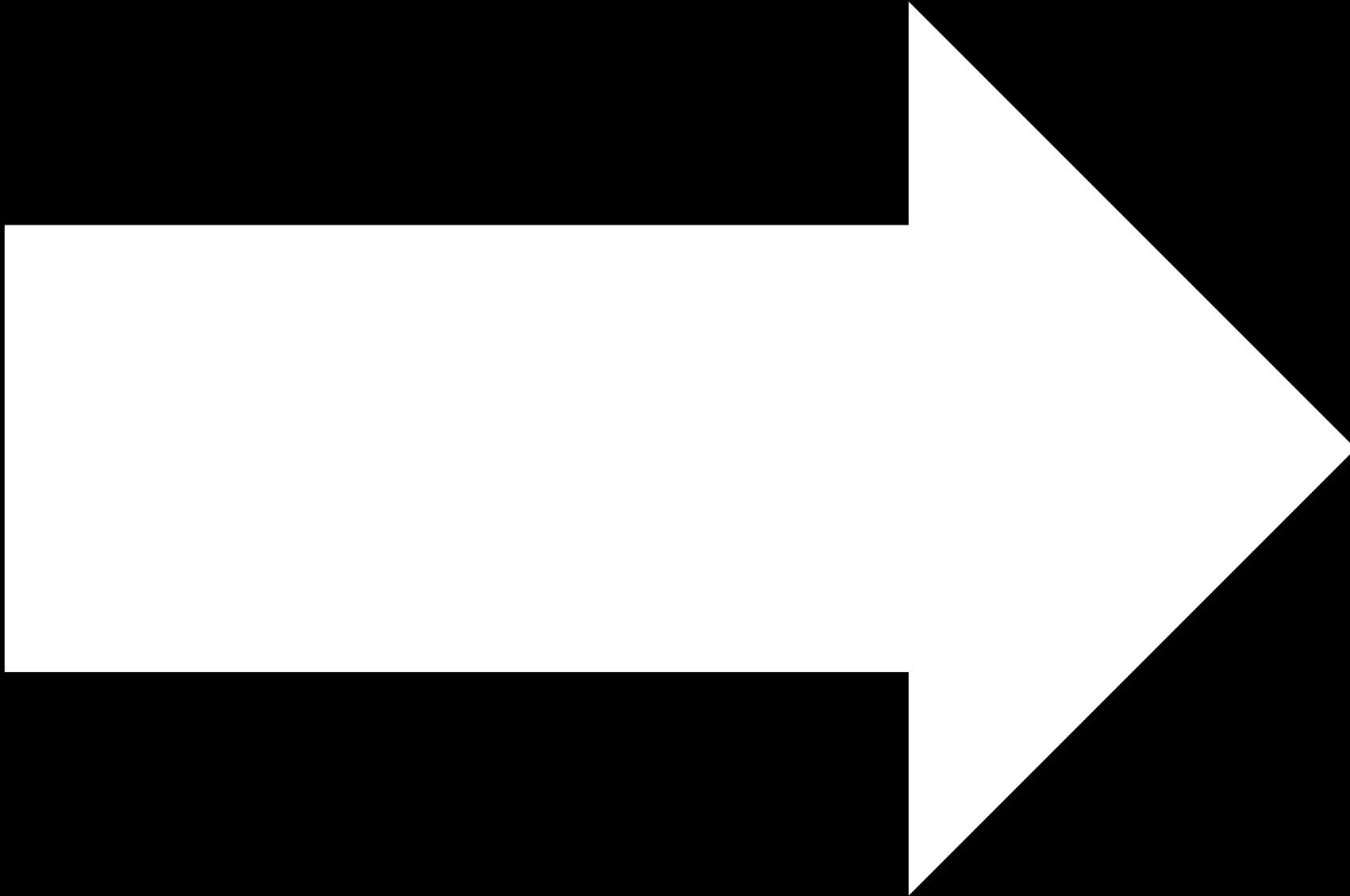
Goal





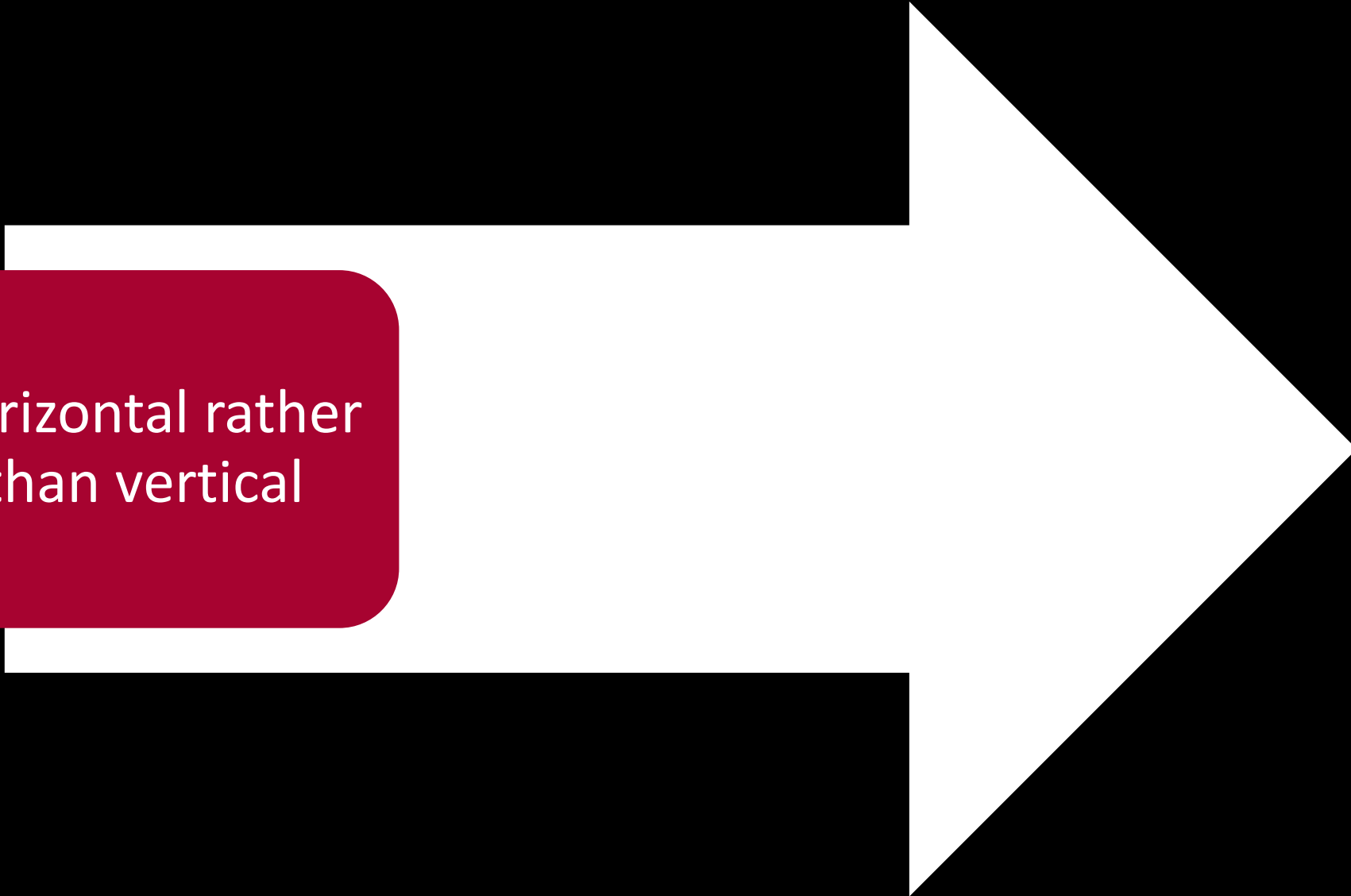


Challenges



Challenges

Horizontal rather
than vertical



Challenges

Horizontal rather
than vertical

Use the force of
active learning
and collective
intelligence

Challenges



```
graph TD; A[Challenges] --> B[Horizontal rather than vertical]; A --> C[Use the force of active learning and collective intelligence]; A --> D[Open Learning]
```

Horizontal rather
than vertical

Use the force of
active learning
and collective
intelligence

Open Learning

Features of 42 that could play a critical role

Features of 42 that could play a critical role

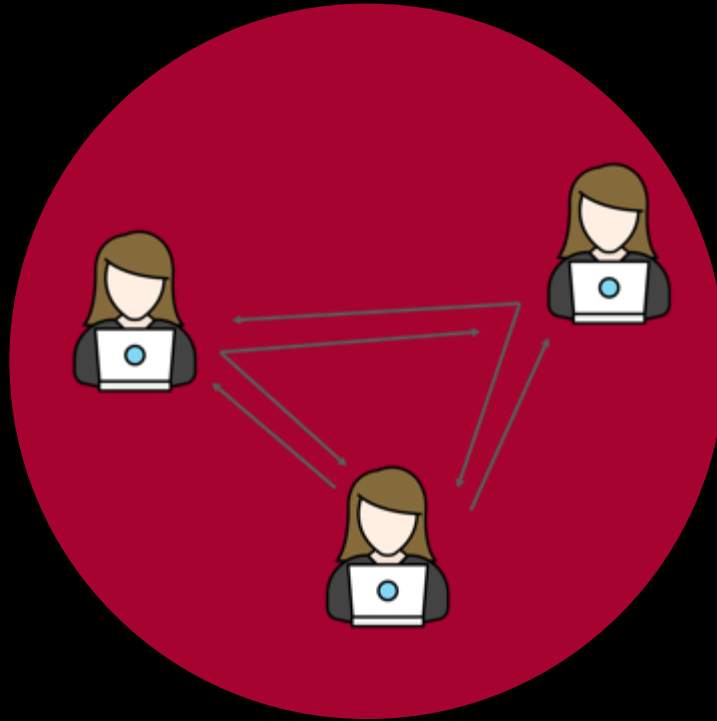


Constant innovation

Features of 42 that could play a critical role



Constant innovation

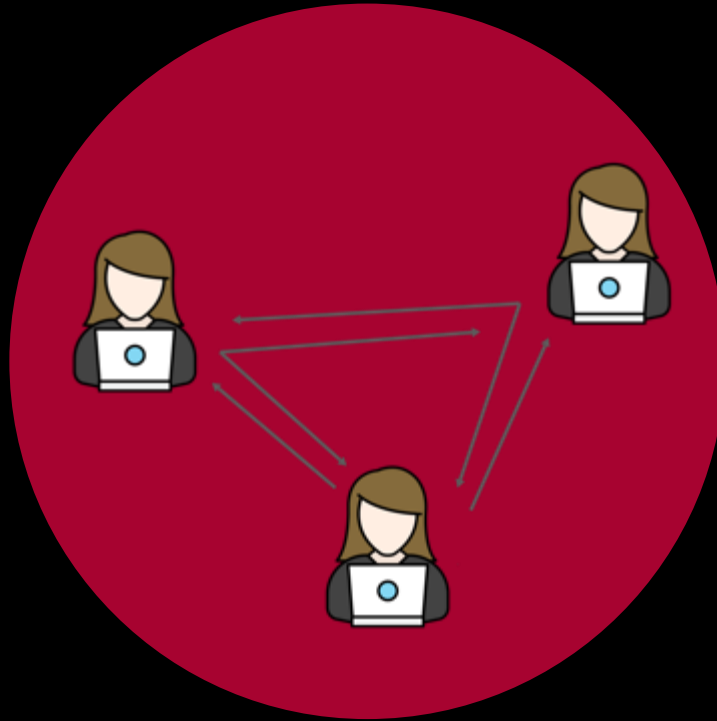


Peer-to-peer interaction

Features of 42 that could play a critical role



Constant innovation



Peer-to-peer interaction



Fitted framework



Education revolution

Thank you for coming