



CodaLab

université
PARIS-SACLAY

Inria
inventeurs du monde numérique

Design and Analysis of Experiments



A Challenge Approach in Teaching

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Pedagogical motivations

Community impact

Graduate students



Organize

Challenges

~5 each year

Graduate students



Organize

Undergraduate students

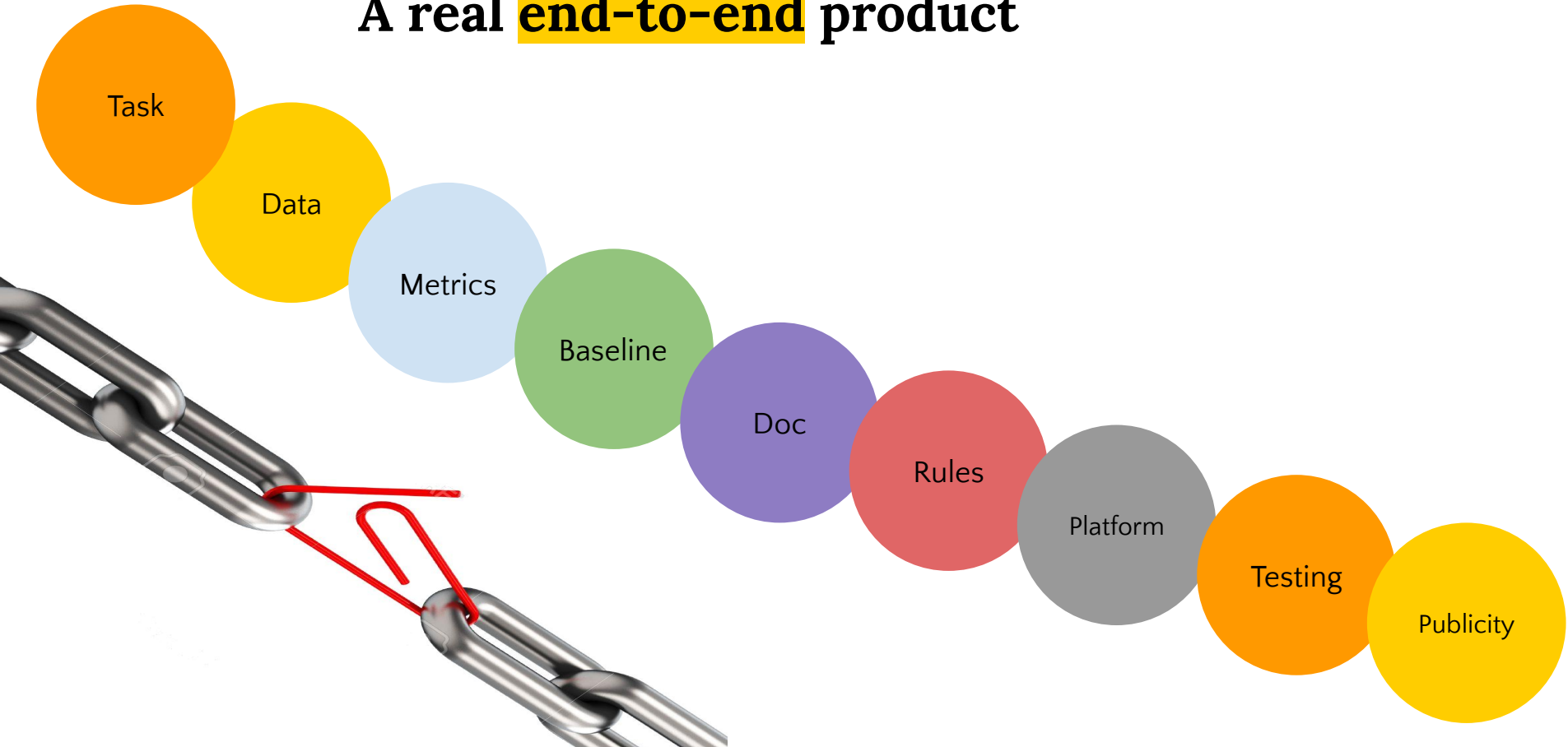


Solve

Challenges

~5 each year

A real **end-to-end** product



Very wide **diversity** of...

Tasks

Classification
Regression
Recommandation
Survival analysis
Reinforcement learning
...

Domains

Medicine
Ecology
Economy
Transport
Art
Sociology
...

Type of data

Tabular data
Images
Time series
Text
Categorical data
...



AI for Good!

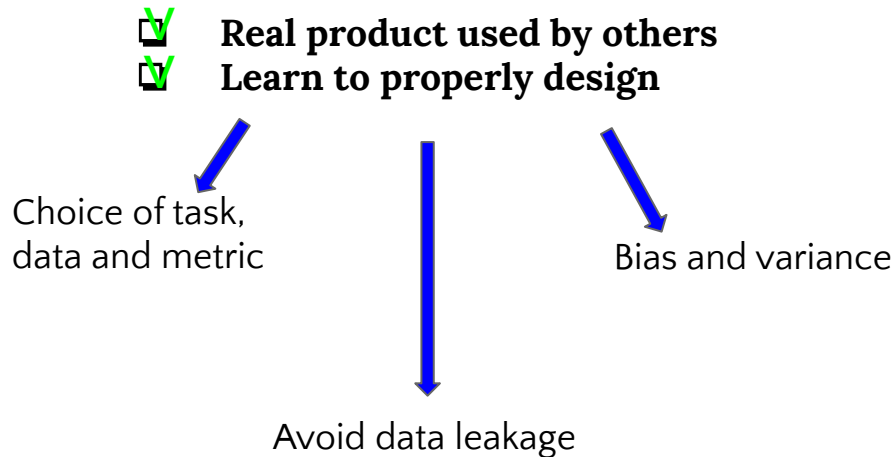


For participants

- ☑ Easier grading
 - ☑ Concrete interesting problems
 - ☑ Application of learned concepts
 - ☑ Emulsion through competition
- ↓
- ☑ Explore original approaches



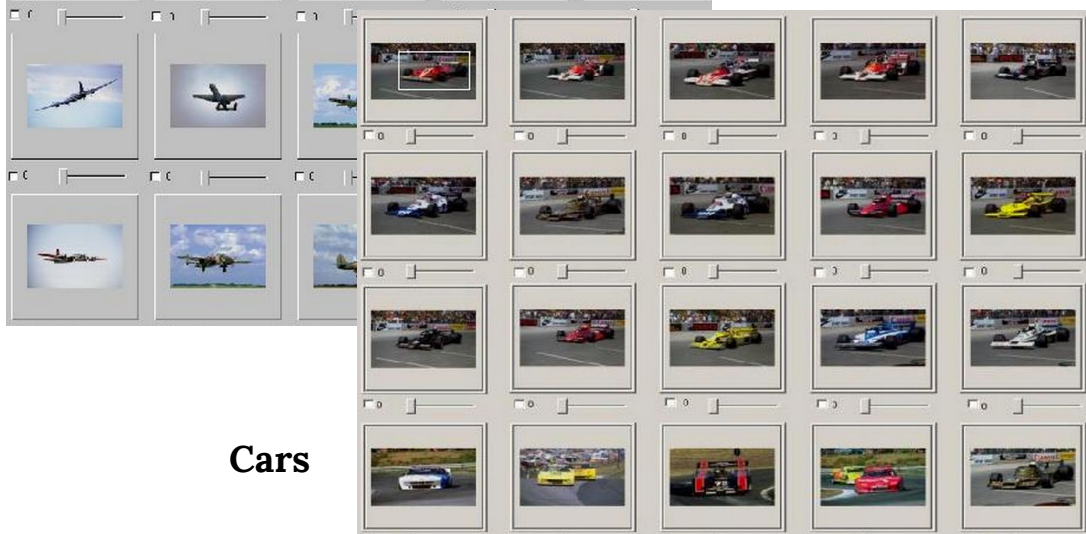
For organizers



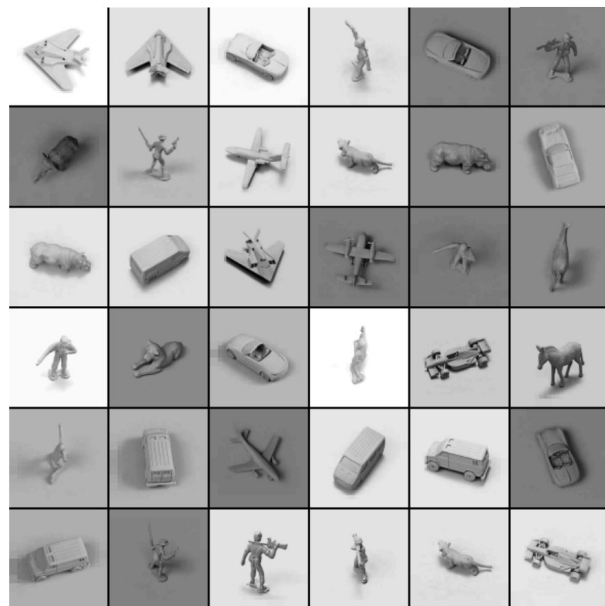
Example: **Confounding factors**



Planes



Cars



Good design

Pedagogical motivations

2

Community impact

New challenges

2015



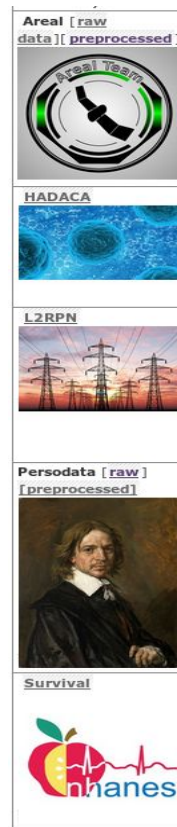
2016



2017



2018



2019



New challenges

2015

MICRO-BES
Less time in hospital

Restaurants

Eye robot

BATMAN
Crimes in Gotham city

Textasie

2016

Blue

Cyan
YOU SHALL NOT PASS

Green

Yellow

Orange

Red
The Godfather Returns

2017

VISION

BIOMED

FRIEND

ECOLO
AIR QUALITY ECOLO TEAM

CREDIT

2018

Areal [raw data] [preprocessed]

HADACA

L2RPN

Persodata [raw] [preprocessed]

Survival

2019

Gaiasavers [PREPROCESSED] [RAW version]

Xporters [PREPROCESSED]

MediChal [PREPROCESSED] [RAW version]

For health students



To be, or not to be?
Mortality Prediction Challenge

New organizers



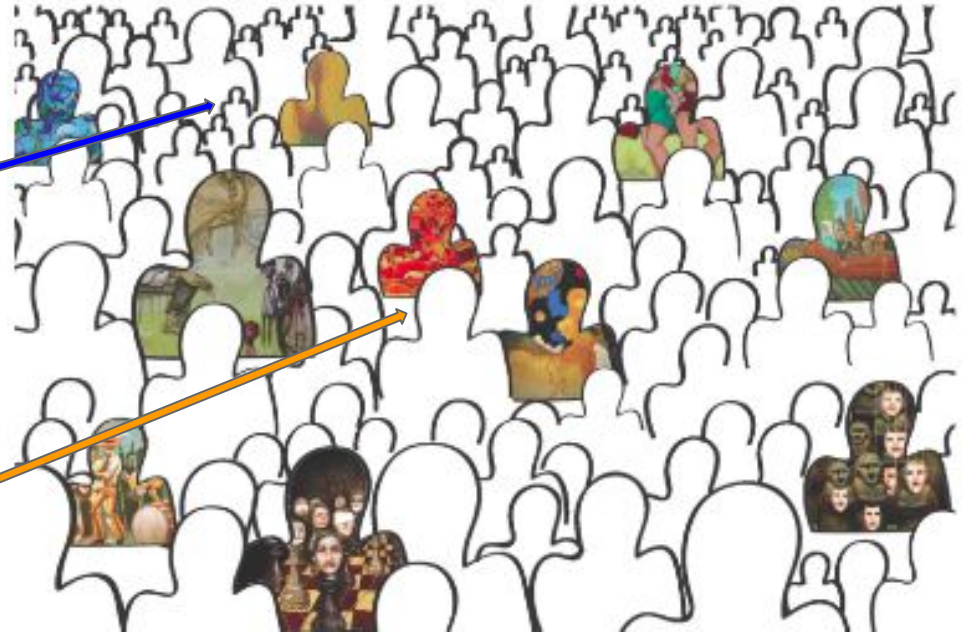
New organizers

This is me!



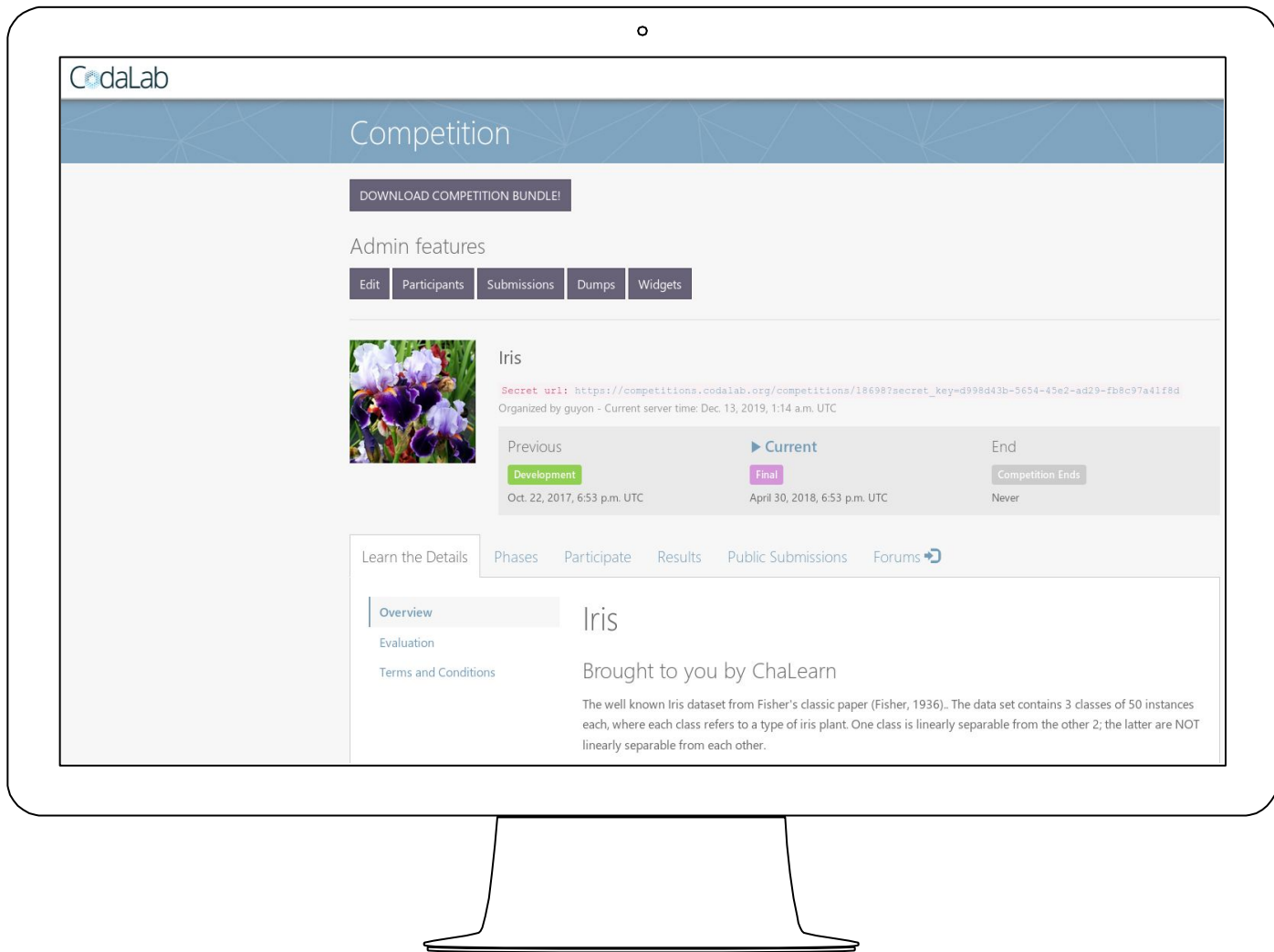
New organizers

This is me!



This may be you or your student

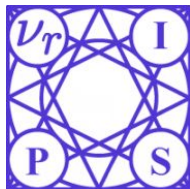
Ready to use
templates





Thanks!

Any **questions?**



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Some more details

- Student's challenges: <http://saclay.chalearn.org/>
- Codalab platform: <https://competitions.codalab.org/>