



# From Abstraction to Story: AI-Generated Comics for Teaching Probability.

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## MOTIVATION

- Probability is highly abstract for Economics and Business students.
- Main difficulties arise in identifying the correct probabilistic model.
- Visual narratives help reduce cognitive load.

## DESIGN OF THE VIGNETTES

- Each vignette illustrates one probabilistic concept
- Contexts are familiar to students
- Visual simplicity is prioritized.
- Illustrations are generated using AI under instructor control.

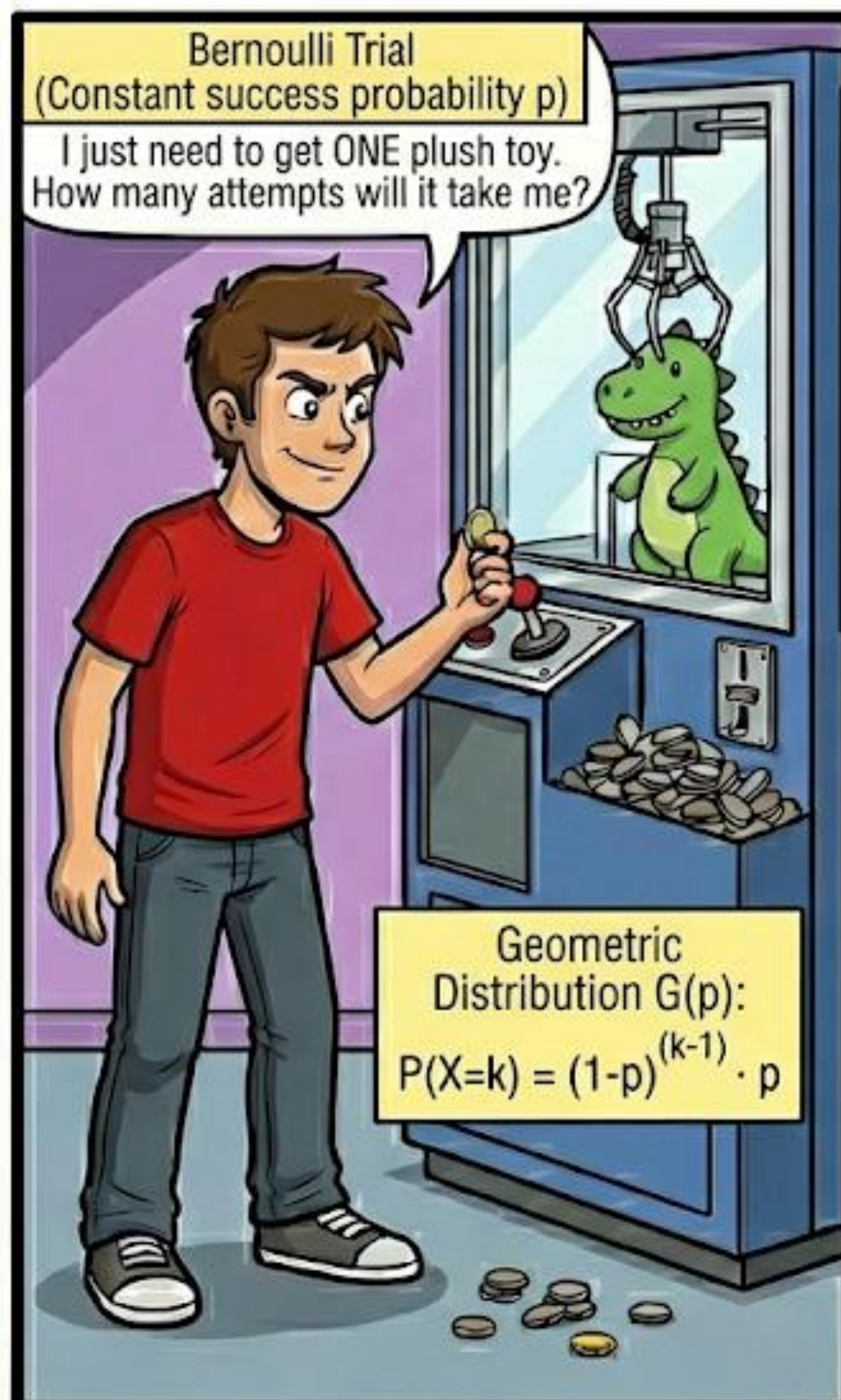
## OBJECTIVES

- Explore the use of AI-generated comic vignettes as a teaching tool to support students in the initial interpretation of probabilistic situations.
- The aim is to facilitate the transition from intuitive reasoning to formal probability models, without reducing mathematical rigor.

## IMPLEMENTATION

- Vignettes are presented at the beginning of each topic, before any formulas are introduced.
- Students discuss the situation to identify the random phenomenon..
- Comics are later used as revision material throughout the course.

## SOME EXAMPLES:



## TEACHING APPROACH

1. Comic vignette representing a real or economic situation.
2. Guided discussion to identify randomness.
3. Guided discussion to identify randomness.



## EVALUATION & EXPECTED OUTCOMES

- Student surveys and exam comparison with previous cohorts.
- Improved model identification.
- Higher engagement and better exam results.