

CHALLENGE OVERVIEW



Every day we make decisions about whether the people and information sources around us are reliable, honest, and trustworthy – the person, their actions, what they say, a news source, or the actual information being conveyed. Often, the only tool to help us make those decisions are our own judgments based on current or past experiences.

- This challenge is focused on the methods used to evaluate credibility assessment techniques or technologies, rather than on the techniques or technologies themselves. In this context, a method is a detailed plan or set of actions that can be easily replicated or followed.
- In this challenge, we ask that your solution is a method for conducting a study, which includes background information, the objectives of the research, study design, the logistics and means for running the study, and details about what data would be collected if your solution were implemented.

CHALLENGE TIMELINE

The CASE Challenge is set to run from January 2, 2019 – March 31st, 2019.

Five competitors will be selected to attend the Stage 2 Challenge Workshop in Washington, D.C., to present their submission.



ELIGIBILITY

Who can participate?

- An individual or team (all team members must be 18 years of age and over)
- An incorporated entity
- International participants
- (FFRDCs) and (DoD) University Affiliated Research Centers (UARCs) (but must forego prizes)

Who is NOT able to compete?

- IARPA's MOSAIC program performer team members
- Individuals or teams from the countries prohibited on the U.S. State Department's State Sponsors of Terrorism list
- Companies and their contractors that are supporting this challenge and IARPA's MOSAIC Program
- Please be sure to read the entire Challenge Rules Document for additional guidance for international Solvers as well as eligible/non-eligible parties

https://www.iarpa.gov/challenges/casechallenge/docs/CASE_Challenge_Rules.pdf

TEAM INFORMATION

- All team members must meet the general eligibility requirements and self-register by acknowledging the rules through the HeroX CASE Challenge page
- Upon registering for the challenge, the Team Captain will need to provide a breakdown of all team members along with the percentage allocation between all team members
- Each team member will need to sign an agreement that they agree to the distribution of prize funds
https://www.iarpa.gov/challenges/casechallenge/docs/CASE_Challenge_Teaming.pdf
- You are allowed to participate as an individual or on one team

https://www.iarpa.gov/challenges/casechallenge/docs/CASE_Challenge_Teaming.pdf



TWO STAGES OF PRIZES

The CASE Challenge is broken up into two stages. During the first stage, all eligible solutions will be evaluated, and the top five solutions will be selected to move on to the second stage. These five finalists, or *Credibility Champions*, will pitch their solutions to a panel of judges at the CASE Challenge Workshop in Washington, D.C. in July 2019, where the Grand Prize winners will be selected.

STAGE 1: FINALISTS IDENTIFIED

May 2019

\$40,000



11 total winners

STAGE 2: GRAND PRIZES AWARDED

July 2019

\$85,000



5 total winners

PRIZE SUMMARY

| PRIZE | AMOUNT |
|---|----------|
| STAGE 1: Finalists Identified | |
| Credibility Champions (5 Prizes, \$5k each, must attend the Workshop Event to be eligible for a Grand Prize in Stage 2) | \$25,000 |
| Prospective Perspective | \$10,000 |
| Scenario Prizes (5 Prizes, \$1,000 each) | \$5,000 |
| STAGE 2: Grand Prizes | |
| 1 st Place Overall | \$40,000 |
| 2 nd Place Overall | \$25,000 |
| 3 rd Place Overall | \$10,000 |
| 4 th Place Overall | \$5,000 |
| 5 th Place Overall | \$5,000 |



STAGE 1 MAIN PRIZES

Stage 1 is the Gateway to the Pitch Challenge.

5x Credibility Champions:

These will be awarded to the Solutions with the best overall performance in Stage 1
These 5 Solutions will be invited to pitch to a live audience at the Stage 2 Pitch Presentation

Requirements for Credibility Champion Prizes:

- Must attend the Challenge Workshop & Pitch Solution
- Must meet all Stage 1 Criteria
- Must achieve Stage 1 Top 5 Score
- Achieve a baseline score of 75% in each of the four Criteria
- Must submit Travel Intention Document during Stage 1

STAGE 1 PROSPECTIVE PERSPECTIVE

This bonus award will recognize one protocol in Phase 1.

This prize will be given to the solution that defines the best protocol dealing with future behaviors and information.

What is a person's intent?

Is past behavior a predictor of future behavior?

How do you establish credibility when ground truth is difficult or impossible to know?

Requirements for Prospective Perspective Prize:

- Must meet all Stage 1 Criteria
- Achieve a baseline score of 60% in each of the four Criteria
 - Eligible for a Stage 2 Award

STAGE 1 SCENARIO PRIZES

These bonus awards will recognize solutions strong in a particular area in Phase 1.

Innovative Methodology Award: Award given for outstanding use of an innovative methodology

Outstanding Participant Motivation Award: Award given for outstanding inspirational motivation to participant

Realistic Reflection Award: Award given for a method with outstanding performance reflecting the parameters of the real-world

Creative Technology Award: Award given for a method with outstanding and innovative use of technology

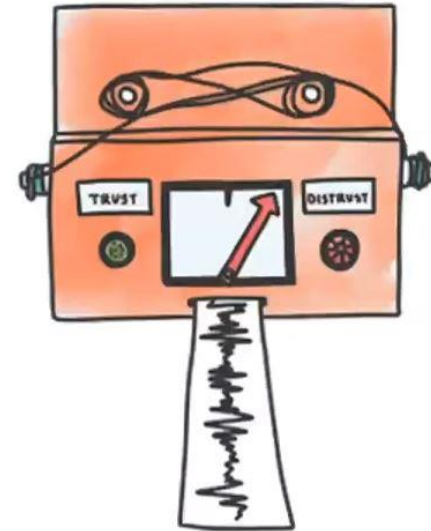
Ground Truth Award: Award given for a method that does an outstanding job of establishing ground truths

Requirements for Scenario Prizes:

- Must meet all challenge eligibility requirements
- Achieve a baseline score of at least 20 out 30 on the Novelty criteria
 - Each solution will only be eligible for one Stage 1 Award
- Only solutions not selected for stage 2 or the Prospective Prize will be eligible for Scenario Prizes

STAGE 2 - CHALLENGE WORKSHOP / PITCH PRESENTATION

- The workshop will take place in **July 2019** in the **Washington, D.C. area**.
- Credibility Assessment researchers and practitioners from the public and private sector will be invited to participate.
- The day will include the Pitch Presentations from **Stage 1 Credibility Champions** along with presentations from industry leaders.
- During the workshop, the winners will be selected based on a similar set of metrics from Stage 1 as well as additional metrics of Pitch Presentation and Method Feasibility.
- Winners will be announced on-site at the conclusion of the Workshop.



SUBMISSIONS

Solvers will be scored based on the following criteria:

- **Solution Overview**

- *Solution Summary*
- *Solution Validity*
- *Solution Background*

- **Solution Design and Methodology**

- **Solution Self-Assessment**

- Scientific Support

- *Replicability*
- *Generalization*
- *Ground Truth*

- Realism

- *Psychological Realism*
- *Physical Realism*
- *Practicality*

- Novelty

- *Procedure*
- *Motivation*
- *Enhanced Realism*
- *Technology*
- *Objective Measurement*

- Participant Consideration

- *Beneficence*
- *Respect for Persons*
- *Justice*
- *Investment*

RESOURCES

- Dr. Dean Pollina Q&A Session, January 9: <https://www.youtube.com/watch?v=2wSoVH40u6g>
- FAQ: https://www.iarpa.gov/challenges/casechallenge/docs/CASE_Challenge_FAQ.pdf
- Collection of Credibility Assessment Articles:
https://www.iarpa.gov/challenges/casechallenge/docs/CASE_Challenge_Bibliography.pdf
- Preparing to Pitch: Five Things You Must Consider When Pitching to the Crowd:
<https://crowdsourcingweek.com/blog/preparing-pitch-five-things-must-consider-pitching-crowd/>
- 4 Ways to Dominate a Pitch Competition: <https://www.entrepreneur.com/article/231398>



ADDITIONAL QUESTIONS

- ***Can I submit more than one Solution?***

Yes, a Solver or Team may submit more than one solution.

- ***Could you list examples of credibility assessment techniques or technologies that a successful solution would be used to evaluate?***

There are a variety of existing and emerging techniques and technologies to help in assessing credibility. These range from low tech solutions, such as questioning and interviewing techniques, to measurement of human physiology, speech, and behavior, as well as methods to evaluate the credibility of information, to include analysis of source metadata and reliability and accuracy of a source over time. These are only a small snapshot. Also, we hope that successful solutions could be used to evaluate future credibility assessment techniques and technologies that have not even been developed yet!

ADDITIONAL QUESTIONS

- ***Will I have to present a working prototype of my idea or is a concept acceptable?***

We are looking for concepts and not working prototypes. You may use images to illustrate your concept, but you are not expected to build, demo, or actually test a proposed solution.

- ***What is the timeframe for evaluating a credibility assessment system?***

A method to evaluate the accuracy of a credibility assessment technique or technology may occur instantaneously (e.g. an automated solution), at the scale of minutes or hours (e.g. an interview technique), or even longer to days or weeks (e.g. time to allow for repeated demonstrations of credible behavior or information).