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At Summit for Democracy, the United States and the United Kingdom Announce Winners of Challenge to Drive Innovation in Privacy-enhancing Technologies That Reinforce Democratic Values

Yesterday, at the second Summit for Democracy, the United States and the United Kingdom announced the winners of prize challenges to drive innovation in privacy-enhancing technologies (PETs) that reinforce democratic values. Announced at the inaugural Summit for Democracy in December 2021, the prize challenges inspired innovators on both sides of the Atlantic to build solutions that enable collaborative development of artificial intelligence (AI) models, while keeping sensitive information private.

Driven by a shared priority to employ data to help solve critical global challenges in a manner that affirms U.S. and U.K. commitments to democratic values and the fundamental right to privacy, the challenges focused on developing PETs solutions for two scenarios: forecasting pandemic infection and detecting financial crime.

World-leading experts from academic institutions, global technology companies, and privacy start-ups competed for cash prizes from a combined U.S.-U.K. prize pool of $1.6 million (£1.3 million). The winning solutions combined different PETs to allow the AI models to learn to make better predictions without exposing any sensitive data. This focus on combining privacy approaches encouraged the development of innovative solutions that address practical data privacy concerns in real world scenarios.

In the final phase of the challenges, the privacy guarantees of the solutions were put to the test by “red teams’” attempts to reveal the original data used for training the models. The resilience of the solutions to these attacks determined the final winners. U.K. participants also received support from the U.K. Information Commissioner’s Office to help them consider how their solutions could demonstrate compliance with key U.K. data protection regulation principles.

The United States and United Kingdom will continue to build on their shared interest in advancing responsible innovation in PETs. In May, a joint Demo Day will be held in London to deepen transatlantic communities of practice among U.K. and U.S. privacy researchers and government representatives. Further collaboration in this space, such as developing tools and guidance to assist practitioners to adopt these technologies effectively and responsibly, is being actively explored.

"Data has the power to drive solutions to some of our biggest shared challenges, but much of that data is sensitive and needs to be protected." said **Arati Prabhakar, Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology Policy.** "Privacy-enhancing technologies are the only way to solve the quandary of how to harness the value of data while protecting people's privacy. That's why it's important for democracies to come together to advance these promising technologies."

"Congratulations to all the winners, who have shown that we can innovate with AI to solve societal challenges while protecting privacy," said **U.S. Secretary of Commerce Gina Raimondo**. "It's critical that we work to protect our democratic values while realizing the potential of AI to serve the common good."

"Collaboration with international partners can help researchers develop technologies and find global solutions to challenges that often transcend borders," said **U.S. National Science Foundation Director Sethuraman Panchanathan**. "We are thrilled that the PETs prize challenge is galvanizing innovation and helping the research community close gaps and accelerate broader adoption of privacy-enhancing technologies."

Michelle Donelan, Secretary of State for the U.K. Department for Science, Innovation and Technology, said: "Never before has our privacy been so important and we must protect our democratic values by safeguarding the right to privacy. That is why the U.K. and its allies are collaborating to create innovative technologies that enable public institutions to combat financial crime and promote public health without compromising the confidentiality of the sensitive data they manage."

John Edwards, U.K. Information Commissioner, said: "Privacy enhancing technologies can help analyse data responsibly, lawfully and securely and it will be important for regulators and industry to continue to work together to support responsible innovation in these technologies."

The prize challenges were designed and delivered through a collaborative, bilateral process. In the United States, the challenges were funded by the National Institute of Standards and Technology and the National Science Foundation, with partnership from the White House Office of Science and Technology Policy. In the United Kingdom, the challenges were delivered by the Centre for Data Ethics and Innovation, part of the Department for Science, Innovation and Technology, and Innovate U.K.. Additional support was provided by the U.K. Information Commissioner's Office, the U.K. Financial Conduct Authority, NHS England Transformation, the U.S. Financial Crimes Enforcement Network, Swift, and the University of Virginia Biocomplexity Institute.

Further information is available at: https://petsprizechallenges.com/

	U.S. Winners	U.K. Winners
Final Winners	*Track A: Financial Crime Prevention* 1. Scarlet Pets (Rutgers University) 2. PPML Huskies (University of Washington Tacoma, Delft University of Technology, University of Brasilia) 3. ILLIDAN Lab (Michigan State University, University of Calgary)	1. (Joint): University of Cambridge 1. (Joint): STARLIT (Privitar, University College London, Cardiff University) 3. Faculty 4. Featurespace
	Track B: Pandemic Response and Forecasting 1. puffle (Carnegie Mellon University) 2. MusCAT (Broad Institute, MIT, Harvard Business School, University of Texas Austin, University of Toronto) 3. ZS_RDE_AI (ZS Associates)	
Special Recognition	Visa Research	Faculty Featurespace Diagonal Works Privitar University of Liverpool

Red Teams	1. ETH SRI (ETH Zurich) 2. Entmoot (Independent researcher) 3. Blackbird Labs	Trūata
White Paper Prizes (announced October 2022)	1. MusCAT (Broad Institute, MIT, Harvard Business School, University of Texas Austin, University of Toronto) 2. IBM Research 3. Secret Computers (Inpher Inc)	Corvus Research Limited DeepMind and OpenMined* Diagonal Works Faculty Featurespace GMV Privately SA STARLIT (Privitar, University College London, Cardiff University) University of Cambridge University of Liverpool *DeepMind and OpenMined have chosen not to accept any prize funds for this challenge.

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