

Appendix B: Acronyms Found in This Report

(alphabetical order)

A	
AAAI	Association for the Advancement of Artificial Intelligence
AaaS	applications as a service
AAMAS	Autonomous Agents and Multiagent Systems
AISC	AI Strategic Challenge
AAF	Adaptive Acquisition Framework
AAL	Army Applications Laboratory
ABMS	Advanced Battle Management System
ADL	Advanced Distributed Learning
AFC	Army Futures Command
AFOSR	Air Force Office of Scientific Research
AFRL	Air Force Research Lab
AGI	artificial general intelligence
ACM SIGKDD	Association for Computing Machinery's Special Interest Group on Knowledge Discovery and Data Mining
AI	artificial intelligence
AI CoE	AI Center of Excellence
AIM	Augmenting Intelligence using Machines
AIPfd	AI Partnership for Defense

Amii	Alberta Machine Intelligence Institute
ANPRM	Advance Notice of Proposed Rulemaking
API	Application Programming Interface
ArF	Argon fluoride
ARO	Army Research Office
ARPA	Academic Research Protection Act
ASC	Alternative Simplified Credit
ASIC	application-specific integrated circuit
ATO	Authorization (or Authority) to Operate
AVC	Bureau of Arms Control, Verification and Compliance

B

BA	Budget Activity
BARDA	Biomedical Advanced Research and Development Authority
BioMADE	Bioindustrial Manufacturing and Design Ecosystem
BIRD	Binational Industrial Research & Development Foundation
BIS	Bureau of Industry and Security
BSF	Binational Science Foundation

C

C2	command and control
C&ET	critical and emerging technologies
CBP	U.S. Customs and Border Protection
CBRS	Citizens Broadband Radio Service
CCMD	combatant command
CCP	Chinese Communist Party

CCW	Convention on Certain Conventional Weapons
CD	cardiovascular disease
CDC	Centers for Disease Control and Prevention
CDO	chief data officer
CFIUS	Committee on Foreign Investment in the United States
CFR	Code of Federal Regulations
CHIPS	Creating Helpful Incentives to Produce Semiconductors
CIA	Central Intelligence Agency
CIO	chief information officer
CISA	Cybersecurity and Infrastructure Security Agency
CMI	Component Mission Initiative
CNIPA	China National Intellectual Property Administration
COE	Center of Excellence
CONOPS	concept(s) of operations(s)
COTS	commercial off-the-shelf
COVID-19	coronavirus disease 2019
CReATE	Coding Repository and Transformation Environment
CRISPR	clustered regularly interspaced short palindromic repeats
CRCL	civil rights and civil liberties
CS	computer science
CSC	U.S. Cyberspace Solarium Commission
CSET Bureau	Bureau of Cyberspace Security and Emerging Technologies
CSIS	Center for Strategic and International Studies
CSTD	Comprehensive Science and Technology Dialogue
CTO	chief technology officer

D

DA	Decision Authority
DAC	Development Assistance Committee
DARPA	Defense Advanced Research Projects Agency
DDI	Bureau for Development, Democracy, and Innovation at USAID
DEXCOM	Deputies Executive Committee
DFC	U.S. International Development Finance Corporation
DFFT	data free flow with trust
DFI	development finance institution
DIA	Defense Intelligence Agency
DIB	Defense Innovation Board
DIU	Defense Innovation Unit
DHS	Department of Homeland Security
D/MR	Deputy Secretary of State for Management and Resources
DNA	deoxyribonucleic acid
DNI	Director of National Intelligence
DoD	Department of Defense
DoDD	Department of Defense Directive
DoE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOT	Department of Transportation
DOT&E	Director, Operational Test and Evaluation
DOTMLPF-P	doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy
DPC	Domestic Policy Council

DRL	Bureau of Democracy, Human Rights, and Labor
E	
EB	Bureau of Economic and Business Affairs
ECRA	Export Control Reform Act of 2018
EDT	emerging and disruptive technology
E.O.	Executive Order
EOP	Executive Office of the President
ERI	Electronics Resurgence Initiative
ESA	European Space Agency
ETC	Emerging Technology Coalition
ETTAC	Emerging Technology Technical Advisory Committee
EU	European Union
EUV	extreme ultraviolet
EXIM	Export-Import Bank of the United States
F	
FAIR	Facebook AI Research
FAR	Federal Acquisition Regulation
FARA	Foreign Agents Registration Act
FBI	Federal Bureau of Investigation
FCC	Federal Communications Commission
FCEN	Financial Crimes Enforcement Network
FDA	U.S. Food and Drug Administration
FFRDC	Federally Funded Research and Development Center
FIRRMA	Foreign Investment Risk Review Modernization Act of 2018

FISMA	Federal Information Security Modernization Act
FPGA	field-programmable gate array
FSI	Foreign Service Institute
FTQC	fault-tolerant quantum computer
FWCI	field-weighted citation impact
FY	fiscal year
FYDP	Future Years Defense Plan
G	
G20	Group of 20
GAN	generative adversarial network
GAO	U.S. Government Accountability Office
GDP	gross domestic product
GEC	Global Engagement Center at Department of State
GGE	Group of Governmental Experts
GIST	Global Innovation through Science and Technology
GPAI	Global Partnership on Artificial Intelligence
GPS	Global Positioning System
GPT-3	Generative Pre-trained Transformer 3
GPU	graphics processing unit
GSA	U.S. General Services Administration
H	
HPC	high-performance computing
HHMI	Howard Hughes Medical Institute
HHS	Health and Human Services

HR	human resources
HQE	highly qualified expert
HSI	human-system interactions
HUMINT	human intelligence
I	
I&W	indication(s) and warning(s)
IARPA	Intelligence Advanced Research Projects Activity
IC	U.S. Intelligence Community
IC ITE	Intelligence Community Information Technology Environment
ICRC	International Committee of the Red Cross
ICT	information and communications technology
IDDI	International Digital Democracy Initiative
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IER	International Entrepreneur Rule
IFBHR	Internet Freedom and Business & Human Rights Section
IFI	international financial institution
IHL	International Humanitarian Law
IMINT	imagery intelligence
INL	Bureau of International Narcotics and Law Enforcement Affairs
IoT	internet of things
IP	intellectual property
IPEC	U.S. Intellectual Property Enforcement Coordinator
IPA	Intergovernmental Personnel Act
IPHE	International Partnership for Hydrogen and Fuel Cells in the Economy

ISAC	Information Sharing and Analysis Center
ISIS	Islamic State of Iraq and Syria
ISN	Bureau of International Security and Nonproliferation
ISO	International Organization for Standardization
ISR	intelligence, surveillance, and reconnaissance
ISTS	International Science and Technology Strategy
IT	information technology
ITF-CCAD	International Task Force to Counter and Compete Against Disinformation
IT SRMC	IT Modernization Senior Risk Management Council
ITU	International Telecommunication Union
ITU-T	International Telecommunication Union–Telecommunication Standardization Sector
IUSSTF	Indo-U.S. Science and Technology Forum

J

JAIC	Joint Artificial Intelligence Center
JCF	Joint Common Foundation
JCIDS	Joint Capabilities Integration and Development System
JIATF	Joint Interagency Task Force
JROC	Joint Requirements Oversight Council
JSP	Joint Strategic Plan
JWAC	Joint Warfare Analysis Center

K

K-12	kindergarten to 12th grade
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L

LAWS	lethal autonomous weapon systems
LKIE	learning, knowledge, and information exchange
LOAC	Law of Armed Conflict

M

M&A	mergers and acquisitions
M&S	modeling and simulation
MAIEI	Montreal AI Ethics Institute
MAIRI	Multilateral AI Research Institute
MASINT	Measurement and signature intelligence
MCC	Millennium Challenge Corporation
MDA	Milestone Decision Authorities
MDAP	Major Defense Acquisition Program
MediFOR	Media Forensics
MEMT	Multi-Engine Machine Translation
Mila	Montreal Institute for Learning Algorithms
MIT	Massachusetts Institute of Technology
MITE	Malign Information Threat Executive
ML	machine learning

N

NAIRR	National Artificial Intelligence Research Resource
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NBA	National Basketball Association

NCEAI	National Council for Expanding American Innovation
NCPS	National Cybersecurity Protection System
NCSC	National Counterintelligence and Security Center
NCTC	National Counterterrorism Center
NDAA	National Defense Authorization Act
NDEA	National Defense Education Act
NDS	National Defense Strategy
NEA	Nuclear Energy Agency
NEC	National Economic Council
NIFA	National Institute of Food and Agriculture
NIH	National Institutes of Health
NIJ	National Institute of Justice
NIS	National Intelligence Strategy
NISQ	noisy intermediate-scale quantum
NIST	National Institute of Standards and Technology
NITRD	Networking and Information Technology Research and Development
NLP	natural language processing
NLU	natural language understanding
NOAA	National Oceanic and Atmospheric Administration
NQCO	National Quantum Coordination Office
NQI	National Quantum Initiative
NRDC	National Reserve Digital Corps
NSF	National Science Foundation
NSTC	National Science and Technology Council
NSA	National Security Agency

NSC	National Security Council
NSF	National Science Foundation
NSIB	National Security Innovation Base
NSIN	National Security Innovation Network
NSS	National Security Strategy
NTF	National Technology Foundation
NTS	National Technology Strategy
NTIA	National Telecommunications and Information Administration
NVLAP	National Voluntary Laboratory Accreditation Program
O	
ODNI	Office of the Director of National Intelligence
OECD	Organisation for Economic Co-operation and Development
OES	Bureau of Oceans and International Environmental and Scientific Affairs
OISE	Office of International Science and Engineering
OMB	Office of Management and Budget
ONR	Office of Naval Research
OPM	U.S. Office of Personnel Management
ORSA	operational research and systems analysis
OSD	Office of the Secretary of Defense
OSINT	open-source intelligence
OSTP	Office of Science and Technology Policy
OTA	Other Transaction Authority
OUSD (A&S)	Office of the Under Secretary of Defense for Acquisition and Sustainment
OUSD (I&S)	Office of the Under Secretary of Defense for Intelligence and Security
OUSD (R&E)	Office of the Under Secretary of Defense for Research and Engineering

OZ	Opportunity Zone
P	
PaaS	platforms as a service
PAL	Permissive Action Link
PCAST	President's Council of Advisors on Science and Technology
P/CLR	Privacy, Civil Liberties, and Civil Rights
P/CRCL	Privacy, Civil Rights, and Civil Liberties
PCLOB	Privacy and Civil Liberties Oversight Board
PCT	Patent Cooperation Treaty
PDDNI	Principal Deputy Director of National Security
PE	program element
PED	processing, exploitation, and dissemination
PGNN	physics-guided neural network
PhD	doctoral graduate
PIA	Privacy Impact Assessment
PII	personally identifiable information
PLA	People's Liberation Army
PM	Bureau of Political-Military Affairs
PM	program manager
PoR	Program of Record
PPBE	Planning, Programming, Budget, and Execution
PPML	privacy-preserving machine learning

Q

QED-C	Quantum Economic Development Consortium
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QIS	Quantum Information Science
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QPU	quantum processing unit
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R

R&D	research and development
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RAI	responsible AI
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RDT&E	research, development, test, and evaluation
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REN-ISAC	Research and Education Networks Information and Sharing Analysis Center
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RL	reinforcement learning
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RMF	Risk Management Framework
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RPA	robotic process automation
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S

S&E	science and engineering
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SBIR	Small Business Innovation Research Program
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S/CCI	Office of the Coordinator for Cyber Issues
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SDK	software development kit
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SDO	standards developing organization
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SemaFor	semantic forensics
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SEP	"standard essential" patents
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SFS	scholarship for service
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SGE	Special Government Employee
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SIAC	Strategic Intelligence Analysis Cell
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SIGINT	signals intelligence
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SMART	Science, Mathematics, and Research for Transformation
SME	semiconductor manufacturing equipment
SMIC	Semiconductor Manufacturing International Corporation
SORN	System of Records Notice
SSD	Strategic Security Dialogue
S&T	science and technology
STAS	Office of the Science and Technology Adviser to the Secretary of State
State/Q	Under Secretary of State for Science, Research and Technology
STEM	science, technology, engineering, and mathematics
STTR	Small Business Technology Transfer Program
SWaP	size, weight, and power

T

TCC	Technology Competitiveness Council
T&E	test(ing) and evaluation
TET	Technology Engagement Team at Department of State
TEVV	test(ing) and evaluation, verification and validation
TRC	Technology Research Center
TSMC	Taiwan Semiconductor Manufacturing Corporation
TTCP	Technical Cooperation Program

U

UARC	University Affiliated Research Center
U.K.	United Kingdom
UN	United Nations
U.S.	United States

U.S.C.	United States Code
USAF	U.S. Air Force
USAID	U.S. Agency for International Development
USASOC	U.S. Army Special Operations Command
USCIS	U.S. Citizenship and Immigration Services
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment
USD(R&E)	Under Secretary of Defense for Research and Engineering
USDA	U.S. Department of Agriculture
USDSA	U.S. Digital Service Academy
USERRA	Uniformed Services Employment and Reemployment Rights Act
USISTEF	United States–India Science & Technology Endowment Fund
USPTO	U.S. Patent and Trademark Office
USTDA	U.S. Trade and Development Agency
USTR	Office of the U.S. Trade Representative

V

VA U.S. Department of Veterans Affairs

VCJCS Vice Chairman of the Joint Chiefs of Staff

W

WH White House

WIPO World Intellectual Property Organization

WLIF Warfighting Lab Incentive Fund

Numbers

3D three-dimensional

3SIIF Three Seas Initiative Investment Fund

5G fifth-generation standard for broadband cellular networks
