

GLOSSARY OF ABBREVIATIONS

5G	Mobile communication network
AARDA	American Autoimmune Disease Related Association
ABVS	Automated breast volume scanning
ACA	Affordable Care Act
ACE	Angiotensin-converting enzyme
ACHD	Adult congenital heart disease
ACMG	American College of Medical Genetics and Genomics
ACR DSI	American College of Radiology Data Science Institute
ACS	American Cancer Society
ACT	Adoptive cell transfer therapy
ACTES	Automated Clinical Trial Eligibility Screener
AD	Alzheimer's disease
ADC	Analog-to-digital conversion
ADR	Adenoma detection rate
ADR	Adverse drug reaction
AI	Artificial Intelligence
AIDS	Acquired Immunodeficiency Syndrome

II GLOSSARY OF ABBREVIATIONS

ALS	Amyotrophic Lateral Sclerosis
ALU	Arithmetic logic unit
AMD	Age-related macular degeneration
AMIGO	Advanced Multimodality Image Guided Operating Suite
AMP	Association for Molecular Pathology
ANA	Antinuclear antibodies
ANCA	Antineutrophil cytoplasmic antibodies
ANN	Artificial Neural Network or Memory Network
APC	Antigen-presenting complex
APHA	American Public Health Association
API	Application Programming Interface
App	Application software
APU	Accelerated processing unit
ARB	Angiotensin II receptor blockers
As	Adenine
ASCA	Administrative Simplification Compliance Act
ASCO	Adaptive Stem Cell Optimization
ASIC	Application Specific Integrated Circuit
ASR	Automated Speech Recognition
AUC	Area under the receiver operating characteristic curve
AUROC	see AUC
AUTOMAP	Automated transform by manifold approximation (MRI)
B1	B lymphocyte
BCC	Basal cell carcinoma (skin cancer)
Bio-NER	Name Entity Recognition
BM	B memory lymphocyte
BP	Blood pressure
BP	Diastolic blood pressure
BPH	Enlarged prostate
BPNN	Back propagation neural network

BRCA1	Cancer gene
BRCA2	Cancer gene
BT	Body temperature
BV	Bacterial vaginosis
C:/ C Drive	Computer hard drive
CAD	Computer-Aided Diagnosis
CAD	Computer-assisted diagnosis (computer-aided design) software
CAOS	Computer-assisted orthopedic surgery
CAP	Severe community-acquired pneumonia
CARs	(Chimeric antigen receptors)
CART	Classification and Regression Tree algorithm
CAT scan	Computer tomography scan
CBC	Complete blood count
CCD	Critical care department
CD8	Cell surface glycoprotein
CDC	Center for Disease Control and Prevention
CDI	Clinical Documentation Improvement (Expert System)
CDI	Clostridium (Clostridioides) difficile infection
CDO	Care delivery organization
CDSi	Clinical Decision Support
CDSS	Clinical Decision Support Services
CEUS	Contrast-enhanced ultrasound
CF	Cystic fibrosis
CHD	Congenital heart disease
CHF	Congestive heart failure
CKD	Chronic kidney disease
CMR	Cardiac MRI
CMS	Centers for Medicare & Medicaid Services
CNS	Central nervous system
CONSULT	Chatbot (Collaborative mObile decisioN Support for managing mULTiple morbidiTies)

IV GLOSSARY OF ABBREVIATIONS

Cop 1	Copaxone
COPD	Chronic obstructive pulmonary disease
COVID-19	SARS-CoV-2 Pandemic
CP	Cerebral palsy
CPR	C-reactive protein
CPS	Cyber-physical systems
CPU	Central Processing Unit
Cs	Cytosine
CSAIL	MIT wearable device to monitor vital signs and emergencies
cSCC	Cutaneous squamous cell carcinoma
CT scan	Computer tomography scan; see CAT scan
CTA	CT angiography
CTEPH	Chronic thromboembolic pulmonary hypertension
CTG	Cardiotocography
CTPA	Computed tomography pulmonary angiogram
CU	Control unit
CUI	Conversational user interface
CV	Cardiovascular
CVD	Cardiovascular disease
CVST	Cerebral venous sinus thrombosis
DCIS	Ductal carcinoma in situ in breast cancer
DCNN	Deep convolutional neural network
DDCS	Digital drug control system
DDS	Decision support system
DIRECT	Discharge Referral Expert System for Care Transitions
DKA	Diabetic ketoacidosis
DL	Deep learning
DLB	Dementia with Lewy bodies
DMARDs	Disease modifying anti-rheumatic drugs
DNA	Deoxyribonucleic acid
DNN	Deep neural network
DNS	Domain Name System

DPP-4	Gliptins (DPP-4 inhibitors)
DQN	Deep Q-Networks
DR	Diabetic retinopathy
DRAM	Dynamic random-access memory
DTMF	Dual Tone Multi-Frequency
DVT	Deep vein thrombosis
EBV	Epstein–Barr virus
ECG	Electrocardiography
EDI	Evolutionary and developmental intelligence
EDX	Electrodiagnosis
EEG	Electroencephalography
EKG	Electrogastrogram
EHR	Electronic health record (originally EMR for “Electronic medical record”)
ELIZA	“Eliza Doolittle” (Original chatbot)
EMG	Electromyography
ENG	Electronystagmography
EOC	Ovarian epithelial cancer
EOG	Electrooculography
EP	Emergency physician
ER	Emergency room
ERG	Electroretinography
ESC	Embryonic stem cell
ESN	Echo State Networks
FAERS	Adverse Event Reporting System
FCC	Federal Communications Commission
FDA	Federal Drug Administration
FPGA	Field-programmable Gate Array
geoAI	Geospatial AI
GER (GERD)	Gastroesophageal reflux
GHz	Gigahertz
GI	Gastrointestinal tract
GIA	Chatbot “GIA” (Genetic Information Assistant)
GINA	Genetic Information Non-Discrimination Act
GIS	Geographic Information System

VI GLOSSARY OF ABBREVIATIONS

GLP-1	Gliptin agonist
GOV	Government agency
GPS	Global Positioning System
GPU	Graphic processing unit
Gs	Guanine
GWAS	Genome-wide association studies
HAT	Health technology assessment
HBV	Hepatitis B virus
HCP	Health care provider
HCV	Hepatitis C
HD	Hard drive
HDL	Hardware Description Language (Verilog and VHSIC HDL)
HDL	High-density protein (“good cholesterol”)
HIPAA	Health Insurance Portability and Accountability Act
HITECH Act	Health Information Technology for Economic and Clinical Health Act
HIV	Human immunodeficiency virus
HLA	Human leukocytic antigen
HMM	Hidden Markov models
HNSC	Pulmonary metastases of head and neck squamous cell carcinoma
HR-PCa	Higher risk prostate cancer
HRSA	Health Resources and Services Administration (U.S.)
HSC	Hybrid stem cell
HSV	Herpes simplex virus
HTA	Health technology assessment
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HWSM	Health Workforce Simulation Model of HRSA
HZ	Herpes Zoster (Shingles)
I/O	Input/Output
IBS	Irritable bowel syndrome

ICD-10	International Statistical Classification of Diseases and Related Health Problems)
ICDR	International Clinical Diabetic Retinopathy classification scale
ICH	Intracranial hemorrhage
ICNC CT	International Conference on Nuclear Cardiology and Cardiac CT
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IDEAL-X	Adaptive learning platform (robot)
IDx-DR	Diabetic retinopathy imaging software
IFN	Interferon
IgAN	Immunoglobulin A nephropathy
IgE	Immunoglobulin E
IHDDA	Intelligent Heart Diseases Diagnosis Algorithm
INO	Internuclear ophthalmoplegia
IoE	Internet of Everything
IOM	Institute of Medicine
IoT	Internet of Things
IP	Internet protocol
iPAH	Idiopathic pulmonary arterial hypertension
IPFS	InterPlanetary File System
iPSC	Induced pluripotent stem cell
ISP	Internet service provider
IT	Information technology
itis	Suffix for inflammation
IVF	In vitro fertilization
KB	Knowledge base
Kiwi	Robot for autistic children
LDL	Low-density protein
LIDC	Lung Image Database Consortium
LPE	Lifelong premature ejaculation
LR-PCa	Lower risk prostate cancer
LSTM	Long short-term memories
LTPAC	Long-term post-acute care

VIII GLOSSARY OF ABBREVIATIONS

LVO	Large vessel occlusion
MACRA	Medicare Access and CHIP Reauthorization Act of 2015
MCPyV	Merkel Cell Polyomavirus
MDP	Markov Decision Processes
MDSS	Medical decision support systems
MEG	Magnetoencephalography
MERS-CoV	Middle East Respiratory Syndrome
MGH	Massachusetts General Hospital
MHC	Major histocompatibility complex
mHealth	Mobile health
MHz	Megahertz
ML	Machine learning
MLm	Machine learning in medicine
Molly	Nursing bot
Moxi	Nursing robot
MRA	Magnetic resonance angiography
MRI	Magnetic resonance imaging scan
mRNA	Messenger ribonucleic acid
MSARD	Marfan syndrome and related disorders
MTB	Mycobacterium tuberculosis
NAHC	National Association for Home Care & Hospice
NC	Nurse Clinician; see Nurse Practitioner
NCBI	National Center for Biotechnology Information (NCBI)
NCHS	National Center for Health Statistics
NCI	National Cancer Institute
NCS	Nerve conduction study
Net	Internet
NF 1	Neurofibromatosis type 1
NF 2	Neurofibromatosis type 2
NGO	Non-governmental organization
NGS	Next-generation sequencing (or next-gen sequencing)
NHCOA	National Hispanic Council on Aging (NHCOA): “All of US” protection

NIA	National Institute on Aging
NIEHS	National Institute of Environmental Health Sciences of the National Institute of Health
NIH	National Institute of Health
NINR	National Institute of Nursing Research; Symptom Science Model
NLG	Natural language generation
NLP	Natural language processing
NLU	Natural language understanding
NMSC	Non-malignant skin cancer
NN	Neural network
NP	Nurse Practitioner; see Nurse Clinician
NRC	National Research Council
NSCLC	Non-small cell lung cancer
NVSS	National Vital Statistics System
OA	Osteoarthritis
OAI	OsteoArthritis Initiative
OCT	Optical coherence tomography
OCTA	Optical coherence tomography angiography
OEA	Oncology Expert Advisor
OI	Osteogenesis imperfecta
oma	Suffix referring to cancer or tumor
ome	Suffix regarding objects of study in biological fields
omics	Suffix referring to a field of study in biology
ONC	Office of the National Coordinator for Health Information Technology
OS	Operating system
OSHA	U.S. Dept. of Labor Occupational Standards and Safety Administration
ODU	Opioid-use disorder
p53	Gene makes a protein that stops mutated cells from dividing (“Guardian of the genome”)
PACT Care BV	Chatbot
PALB2	Gene for breast cancer
PCa	Prostate cancer

X GLOSSARY OF ABBREVIATIONS

PCI	Prophylactic cranial radiation
PCNSL	Primary central nervous system lymphoma
PCOS	Ovarian cysts and polycystic ovary syndrome
PDGM	Patient-Driven Groupings Model
PE	Pulmonary emboli
PET scan	Positron emission tomography scan
PGD	Preimplantation testing, also called preimplanta- tion genetic diagnosis
PHCI	Patient health condition identification
PHD	Patient health data
PHM	Population Health Management
PHN	Public health nursing
PHR	Personal health record
PICU	Pediatric intensive care units
PID	Pelvic inflammatory disease
PMI	Precision Medicine Initiative
PML	Progressive multifocal leukoencephalopathy
PNS	Peripheral nervous system
POCT	Point-of-care-testing labs (e.g., Maverick Detec- tion System from Genalyte)
PPRHA	Patient preventive/remedial health advocacy
PR	Pulse rate
PROBOT	Surgical robot
PROMIS	Patient-Report Outcomes Measurement Infor- mation System
PUMA	Programmable Universal Machine for Assembly
PVOD	Pulmonary veno-occlusive disease
QOL	Quality of life
R0	Naught point
RA	Rheumatoid arthritis
RAM	Random access memory
RAP	Request for Anticipated Payment
RAS	Robotically assisted surgical devices
RCIGM	Rady Childrens Institute for Genomic Medicine
RECIST	Response Evaluation Criteria in Solid Tumors

RF	Radio frequency
RFA	Radiofrequency ablation
RFID	Radio frequency identification
RL	Reinforcement learning
RNA	Ribonucleic acid
ROM	Read-only memory
ROP	Retinopathy of prematurity
ROS	Robotic operating system
RP-VITA	Telepresence robot
RPA	Robotic process automation
RPM	Remote patient monitoring
RR	Respiration rate
RTI	Reproductive tract infection
RTP	“Return to Provider”
SAA	Strategic Anemia Advisor
SAH	Subarachnoid hemorrhage
SARSA	State–Action–Reward–State–Action
SARS-CoV	Severe acute respiratory syndrome (Coronavirus)
SCC	Squamous cell carcinoma (skin cancer)
SCLC	Small cell lung cancer
scRNA-seq	Single-cell RNA sequencing
SDRAM	Synchronous dynamic random-access memory
SGLT2	Inhibitors in type 2 diabetes
SICU	Surgical intensive care units
SLA	Systemic lupus erythematosus
SmHT	Smart home technologies
sMLP and dMLP	Perceptrons
SNF	Skilled nursing facility
SPECT	Single-photon emission computed tomography
SPHinX	Sheffield Pulmonary Hypertension IndeX
SQUID	Superconducting quantum interference device
SSPE	Subacute sclerosing panencephalitis
SSR	Solid-state relay
STAR	Smart Tissue Autonomous Robot (Johns Hopkins University)

XII GLOSSARY OF ABBREVIATIONS

STD	Sexually transmitted disease
STDR	Sight-threatening diabetic retinopathy
SVM	Support vector machine
TAMG	Thymoma-associated myasthenia gravis
TC	T cytotoxic lymphocyte
TCP/IP	Transmission Control Protocol/Internet Protocol
TEE	Transesophageal echocardiography
THS	Tolosa–Hunt syndrome
TIA	Transient ischemic attack
TIDE	Tumor Immune Dysfunction and Exclusion
TM	T memory lymphocyte
TNM	Tumor, Node, Metastasis
TPU	Tensor Processing Unit
TRACIR	TRAUma Care in a Rucksack:TRACIR:AI enabling medical interventions that extend the “golden hour” for treating combat casualties and ensure an injured person’s survival for long medical evacuations.
TREAT	Expert system based on a causal probabilistic network to improve antibiotic
tRNA	Transfer RNA
TS	T suppressor lymphocyte
Ts	Thymine
UA	Uterine activity
UID	Unique identifier
URL	Uniform resource locator
USB	Universal serial bus
UTI	Urinary tract infection
VARIMED	Large Stanford University database of published disease-associated genetic variants
VED	Venous erectile dysfunction
ViSi (Sotera Wireless)	Mobile app to monitor vital signs
VRAM	Video random access memory
VSELS	Very small embryonic-like stem cells

VWF	von Willebrand Factor
WBC	White blood cell
WCE	Wireless capsule endoscopy
Web	World Wide Web
WES	Whole-exome sequencing
WfG	Watson for Genomics
WFO	IBM's Watson for Oncology
WGS	Whole-genome sequencing
WHO	World Health Organization
WWW	World Wide Web
X-Ray	Conventional radiography
XAI	Explainable AI

GLOSSARY OF TERMINOLOGY

ACE-2: Angiotensin-converting enzyme protein on the surface of many cell types and receptor site for novel coronavirus spike protein

Acquired immune system: Active immune system producing antibodies

Acquired Immunodeficiency Syndrome (AIDS): Active HIV infection

Acquired mutations: Change in gene structure causing abnormality in the human organism

Acute inflammation: Clinical reaction in acquired immune response

Adaptive immunity: Adaptive immune response

Addiction medicine: Diagnosis and treatment of persons with the disease of addiction

Adenine (As): Amino acid base compound in DNA

Affordable Care Act (ACA): Affordable Care Act (*aka* Obama Care)

Alexa: Amazon chatbot

Algorithm: A procedure or formula for solving a mathematical problem, based on conducting a sequence of specified actions or steps that frequently involves repetition of an operation

- All of Us* initiative: NIH precision medicine research project
- Alleles: Inherited genes on a chromosome that determine hereditary
- Allergens: Specific form of antigen that triggers immunoglobulin E (IgE)
- Allergy: Hypersensitivity response
- Amazon: Multinational technology company
- Amino acid: Building blocks of the large, complex protein molecules
- Amygdala: Nucleus in the limbic system of the brain
- Anaphylactic shock: Life-threatening hypersensitivity reaction
- Angiogenesis inhibitors: Cancer treatment
- Angiotensin II receptor blockers (ARBs): Treatments for ride-side heart conditions
- Angiotensin-converting enzyme (ACE) inhibitors: Treatments for ride-side heart
- Anti-inflammatory medications: Drugs to treat acute inflammation
- Anti-TNF (tumor necrosis factor): Proinflammatory cytokine
- Antibiotic: Treatment for bacterial infection
- Antibody: Cellular component of the immune response
- Anticoagulant medications (e.g., heparin, warfarin): Medication to reduce clotting
- Antigen-nonselctive immunomodulators: See interferon (IFN)-beta 1b (Betaseron), IFN-beta 1a (Avonex), and Cop1 (Copaxone)
- Antigen-presenting complex (APC): Antigen bound to a macrophage and T cell
- Antigen: Foreign (non-self) substance or stress
- Antiplatelet medications (e.g., aspirin, Plavix): Anticoagulation drugs
- Apoptosis inducers: Cancer treatment
- Apoptosis: Cell's ability to self-destruct when something goes wrong
- Application Programming Interface (API): Software intermediary (i.e., "software-to-software" program) whose function is to

- specify how software components should interact or “integrate” with databases and other programs
- Application software (app): User-specific program
- Arithmetic Logic Unit (ALU): Stored programmed instructions to device controllers and device drives to perform specific tasks for mathematical and logical operations on information in RAM
- Array: Hardware circuits that a user can program to carry out one or more logical operations
- Artificial conversation entity: see Chatbot
- Artificial intelligence (AI): A branch of computer science dealing with the simulation of intelligent behavior in computers; the capability of a machine to imitate intelligent human behavior (a “disruptive technology”)
- Artificial neural network (ANN): The human neural network model replicated in computer technology
- Artificially Intelligent Robots: Robots that are controlled by AI programs as smartphones and tablets.
- Aspirin: Acetylsalicylic acid (ASA)
- Assembler software: Used in compilation process to assemble target data
- Asthma: Chronic, long-term condition that intermittently inflames and swells the airways
- AUROC: Area under the receiver operating characteristics
- Auto-antigen: Antigen in the autoimmune disease process
- Autoantigen: Normal bodily constituent and against which the immune system produces autoantibodies
- Autoantigenicity: Relating to autoantigens
- Autoencoder: Unsupervised learning technique for neural networks
- Autoimmune disease: Category of immune diseases of unknown origin (originating through self-antigenicity)
- Autoimmunity: Misdirected immune response that occurs when the immune system attacks the body itself.
- Autologous: From “one’s self,” e.g., hematopoietic stem cell

XVIII GLOSSARY OF TERMINOLOGY

Autologous CAR-T-cell therapy: Modified and targeted lymphocytes reintroduced to the patient's body through a single infusion to attack tumor cells

Autosomal dominant allele: Determine hereditary characteristics

Autosomal recessive allele: Two copies of an abnormal gene must be present for the disease or trait to develop

Axon: Conducts electrical impulses away from the neuron's cell body; primary transmission lines of the nervous system

Azithromycin: Antibiotic used in combination with hydroxychloroquine as an antiviral

B-cell lymphocytes: See non-granular leukocytes

Base pair: Nucleotide amino acid base compounds on a gene (collectively called the human exome)

Basophils: Type of white blood cell (WBC)

Bayesian logic: Logic applied to decision-making and inferential statistics that deals with probability inference

Big data: Large volumes of data

Biobanks: Biological specimen databases

Bioinformatics: The science of collecting and analyzing complex biological data

Biologic agents: Immune modulating drug classes

Biologics: Immune-related drugs manufactured through chemical synthesis

Biomarkers: Phenotypic features for any measurable quantity or score that can be used as a basis to stratify patients

Biomedical informatics: Data used in big data analytics

Bioscience: Any branch of natural and life science

Blockchain: System in which a record of transactions made in cryptocurrency

BlueDot: AI-powered algorithm to analyze information that can track over a hundred infectious diseases

Boolean logic: Things determined as completely true or false

Bradykinin: Potent endothelium-dependent vasodilators

BRCA1: Cancer gene

BRCA2: Cancer gene

C Drive (C:/): The main hard disk partition on a computer that contains the operating system and the related system files.

C-reactive protein (CRP): Increases with heart disease

Cache: Collection of items of the same type stored in a hidden on a computer

Calor: Referring to temperature (heat) in the inflammatory process

Cancer: Group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body

CAR-T cell therapy: Gene replacement therapy

Carcinogenesis: Series of mutations in an oncogene

Carcinogens: Substances capable of causing cancer in living tissue.

Carcinoma: A cancer that starts in the skin or the tissues that line other organs

Cardiovascular disease: Diseases relating to heart and blood vessels

Caseation: Form of necrosis

Cas9 enzyme: Acts as a pair of “molecular scissors” that can cut the two strands of DNA at a specific location in the genome

Cas13 enzyme: Guide RNAs used in CRISPR technique for possible COVID-19 vaccine

CD8: Cell surface glycoprotein

Central processing unit (CPU): Transforms the raw data into binary code information

Cerebral cortex

Cerebrovascular disease: Diseases relating to the central nervous system and its vasculature system

Chatbot: Interactive agent

Checkpoint inhibitors: Immune system modulator

Chemotaxis: Phenomenon whereby somatic cells, bacteria, and other single-cell or multicellular organisms direct their movements in response to certain chemicals in their environment

Chemotherapy: Cancer therapy using chemical agents

CheXNeXt algorithm: Stanford University algorithm to screen chest X-rays for more than a dozen types of disease in less time

than it takes to read this sentence.

Chrome: Google browser

Chromoendoscopy: Optimal diagnostic accuracy that is comparable with standard histopathologic examination

Chromosome: Thread-like structure of nucleic acids and protein found in the nucleus of most living cells, carrying genetic information in the form of genes

Chronic disease: Conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both; e.g., heart disease, cancer, diabetes

Chronic inflammation: Extended or permanent clinical manifestation of acquired immune disorders; considered the underlying cause of all human disease

Chimeric: An organism or tissue that contains at least two different sets of DNA

Clinical Decision Support Services (CDSS): Predictive analytics for decision-making for healthier care experiences for health providers

Clonotypes: Sequences of nucleotides known as receptors

Cloud computing: Using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer

Community health: Geographically based population health and public health addressing public policy influences, creating shared community resources, and conducting a holistic approach to health and wellness

Comorbidity: see Concurrent Medical Conditions

Compilation: Target code or binary (machine) code information populates the inner (hidden) layer of a computer to be used by its software

Compiler (translator): Converts human language and commands (source code) from keyboards, spoken word (audio) or visual imagery into machine code (or computational language) for the input layer

Computational immunogenetics: Bioinformatic methods

- Computational immunology: Immunoinformatics
- Concurrent Medical Conditions: Comorbidity or multimorbidity
- Contact tracing: Identifying persons exposed to infectious risk
- Control unit (CU): CPU unit that decodes and executes instructions
- Convalescent plasma (serum): Antibody-rich plasma from previously infected victim
- Core processor: CPU unit that executes multiple instructions simultaneously
- COVID-19: Highly contagious respiratory disease caused by the SARS-CoV-2 virus
- CRISPR-Cas9 therapy: (Clustered regularly interspaced short palindromic repeats associated protein 9); gene editing
- Crohn's disease: Autoimmune disease of the gastrointestinal tract
- CSAIL: "The Computer Science and Artificial Intelligence Lab," MIT wearable device to monitor vital signs and emergencies
- CTLA-4: Monoclonal antibody drug
- Cytokine: Chemical components of the immune system
- Cytokine storm: Excessive production of cytokines secondary to chronic inflammation
- Cytosine (Cs): Base compound
- Cytotoxic: Cell killing
- Data integration: A process that consists of retrieving, cleaning, and organizing data, usually obtained from several different sources
- Data mining: Searching for information in a database
- Data node: Network of data points
- Data processing: Utilizing data to produce a result
- Database: Structured set of data held in a computer and accessible in various ways
- Decision tree: Algorithm is used for solving regression and classification problems
- Decode: Programs to be executed translated into Assembly instructions
- Degranulation: Mast cell neutralizing process
- Deep convolutional neural network (DCNN): Deep learning process

- Deep learning (DL): Subcategory of machine learning algorithms that uses multiple layers to progressively extract higher-level features from the raw input
- Deep neural network (DNN): Same as DCNN
- Deep Q-Networks (DQN): Reinforcement learning process
- Demographics: Statistical data relating to the population and particular groups within it
- Dendrite: Short branched extension of the neuron, along which impulses received from other cells at synapses are transmitted to the cell body
- Dependent variables: Outcomes in a defined population group
- Descriptive analytics: Analyzes real-time incoming and historical data for insights on how to approach the future to determine some characteristic of the offspring
- Diabetes insipidus: An uncommon disorder that causes an imbalance of fluids in the body
- Diabetes mellitus type 2 (originally, Adult Diabetes): Glucose (sugar) collects in the blood (hyperglycemia) and does not reach the cells
- Diabetes type 1 (originally, juvenile diabetes): Autoimmune destruction of the pancreatic beta cells, which is caused by unknown factors
- Diabetic retinopathy (DR): Retinal vascular changes associated with diabetes
- Diagnostic analytics: Form of advanced analytics which examines data or content to determine why a health outcome occurs
- Diapedesis: Migration of cells through blood vessel wall
- Digital code: Machine or binary code
- Disease-modifying anti-rheumatic drugs (DMARDs): Immune modulating drug class
- Disruptive technology: A process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves upmarket, eventually displacing established competitors
- DNA editing: Direct manipulation of DNA sequences in cells

- DNA sequencing: Determine the order of DNA proteins (nucleotides) in an individual's genetic code
- DNA: Deoxyribonucleic acid, the carrier of genetic information
- Dolor: Pain in the acute inflammatory process
- Domain Name System (DNS): System by which Internet domain names and addresses are tracked and regulated
- Domain: Name used to identify one or more IP addresses
- Doppler ultrasound: Increase (or decrease) in the frequency of sound
- Double helix: DNA molecules made of two twisting, paired strands
- Ductal carcinoma in situ (DCIS): Breast cancer
- Dynamic random-access memory (DRAM): Form of random-access memory
- Dysregulate: Abnormal acquired immune response
- Echo: Amazon chatbot
- ELAM: Endothelial adhesion molecule
- Electronic health record: EHR originally EMR for "electronic medical record"
- Embolus: Migrating blood clot
- Embryonic stem cell (ESC): Pluripotent, undifferentiated stem cell capable of generating all of the body's cell types
- Eosinophils: White blood cell common in allergic reactions
- Epidemic: Widespread occurrence of an infectious disease in a community or country at a particular time
- Epidemiology: Branch of medicine which deals with the incidence, distribution, and possible control of diseases and other factors relating to health.
- Epigenetic dysregulation: Development of autoimmunity by dysregulating immune cell functions
- Epigenetics: Study of changes in organisms caused by modification of gene expression rather than alteration of the genetic code itself
- Epigenome: Chemical compounds that regulate gene expression
- Evidence variable: A known factor enabling identification of an unknown

- Exocytosis: Active transport in which a cell transports molecules out of the cell
- Expert system: Rule-based and “knowledge engineers”
- Explainable AI (XAI): Explains method and rationale algorithm uses to make a determination(s); Explanation facility
- Explanation facility: Explainable XAI
- Explorer: Microsoft browser
- Exposome: Nongenetic exposures that affect human health and disease
- Expression: Regulated activity of a gene
- Fibroblast: Connective tissue cell
- Firefox: Mozilla browser
- Florence: Nursing bot (Florence Nightingale)
- Framework: A platform for developing software applications
- Funcio laesa: “Los of function” in the inflammatory process
- Fuzzy logic: Indiscriminate nature of real things with a series of transitional state
- Gene editing: Manipulation of the genetic material of a living organism by deleting, replacing, or inserting a DNA sequence
- Gene expression modulators: Cancer treatment
- Gene mutation: Change in base compound sequencing
- Gene replacement therapy: Technique of recognizing a faulty gene and applying a piece of DNA in its correct form
- Gene sequencing: Ordering of base compound pairs (adenine paired with thymine and guanine paired with cytosine).
- Gene signature: Gene expression or number of RNA molecules they produce
- Gene: A unit of heredity which is transferred from a parent to offspring and is held to
- Genetic and hereditary disorders: Inherited disorders
- Genetic cloning: The processes used to create an exact genetic replica of another cell, tissue, or organism
- Genetic code: See DNA sequencing
- Genetic engineering or modification: Editing or modifying genetic material

- Genetic testing: Tests to identify changes in chromosomes, genes, or proteins
- Genome: An organism's complete set of DNA, including all of its genes
- Genomic medicine: Clinical science that attempts to build individual strategies for diagnostic or therapeutic decision-making
- Genomics: Study of the genome
- Genotype: Genetic information carried for a trait
- Gliptins (DPP-4 inhibitors): Work by preventing the breakdown of a naturally occurring hormone called GLP-1 in type 2 diabetes
- GLP-1 agonists: For type 2 diabetes, act similarly to the natural hormone GLP-1 (see gliptins)
- Google: Search engine
- Google's DeepMind Health: Precision medicine program
- Granular leukocytes: Eosinophils, neutrophils, and basophils
- Granuloma: Collection of inflammatory cells
- Guanine (Gs): Genetic base compound amino acid
- Hard disk: Storage device
- Hardware Description Language (HDL): Verilog and VHDL
- Hardware: Physical components of a computer
- Health analytics: Tools and techniques that extract information from these complex and voluminous datasets and translate them into information to assist decision-making in healthcare
- Hepatitis C virus (HCV): Risk of liver cancer
- Herd immunity: Protection from infectious disease that occurs when a sufficient percentage of a population has become immune to an infection
- Heredity: The passing on of physical or mental characteristics genetically from one generation to another
- Heterozygous: One recessive and one dominant allele
- Heuristic: Trial and error, intuitive, or "rule of thumb"
- Hidden layer: Inner layer of computer and human cortex; see Inner layer
- Hierarchical clustering: A technique that groups similar data points such that the points

- Hippocampus: Nucleus in the midbrain limbic system
- Histopathology: Study of changes in tissues caused by disease
- Hives: See Urticaria
- Homeostasis: A relatively stable equilibrium between interdependent elements, especially as maintained by physiological processes
- Homozygous: Two recessive alleles
- Horizontal integration: The coordination of activities across operating units that are at the same stage or level in the process of delivering services
- Human Genome Project: Complete mapping of the human DNA sequencing
- Human immunodeficiency virus (HIV): Risk of Kaposi sarcoma, lymphomas (including both non-Hodgkin lymphoma and Hodgkin disease), and cancers of the cervix, anus, lung, liver, and throat
- Human papillomaviruses (HPVs): Risk of all cervical cancers and penile cancers;
- Human T-cell leukemia/lymphoma virus type 1 (HTLV-1): Risk of adult T-cell leukemia/lymphoma (ATLL);
- Human Vaccines Project: Combining systems biology with artificial intelligence to understand one of the greatest human immune systems
- Humoral: Blood-related serum and fluids that carry WBCs, B and T lymphocytes and chemical components like cytokines
- Hydroxychloroquine (Plaquenil): Biologic used unsuccessfully as an anti-viral against novel coronavirus
- Hypersensitivity response: Allergic IgE response
- Hypertext Markup Language (HTML): Universal website language
- Ibuprofen: Nonsteroidal anti-inflammatory drug (NSAID)
- Idiotypic network theory (INT): B-cell idiotype circulatory loop
- If/then statements: Reveal associations between independent data in a database, relational (Inference rules logic) reveal associations between independent data in a database, relational or other information repositories

- Induration: Hardening due to chronic edema
- Immunize: Stimulating neutralizing antibodies to the source of an infection.
- Immunocompromised: Impaired immune system
- Immunodeficiency: Lack of immune response to antigen
- Immunogenetics: Branch of medical genetics that explores the relationship between the immune system and genetics.
- Immunogenomics: Adding, for each of us, the millions of uniquely randomized T- and B-cell receptor genes that encode our immune repertoires
- Immunoglobulin E (IgE): Hypersensitivity, allergic immune reaction
- Immunoinformatics: Bioinformation of immune system
- Immunomics: Immune system regulation and response to pathogens using genome-wide approaches
- Immunomodulators: Non-specific drug categories that suppress or stimulate the immunesystem
- Immunopharmacology: Dealing with drugs acting on the immune system and with the pharmacological actions of substances derived from the immune system
- Immunosenescence: Immunology of aging
- Immunosuppression: Decreased (suppressed) immune system in the same group is more similar to each other than the points in the other groups
- inDelphi: Algorithm to predict DNA repairs through Cas9
- Independent variables: Variable (often denoted by x) whose variation does not depend on that of another.
- Industry 4.0 (Health 4.0): Cyber-Physical Systems (CPS) integrated with IoT and cloud-computing plus an array of other technologies
- Inference engine: See if/then statement
- Inflammation: Acute or chronic clinical response of the acquired immune response characterized by reddened (“rubor”), hot (“calor”), swelling (“tumor”), and pain (“dolor”)
- Innate immune system: Natural (healthy) defense system of the body

Inner (hidden) layer: See hidden layer

Input layer: Information or data provided by an external source called an input device

In silico: Research conducted by means of computer modeling or computer simulation

Insulin: Hormone produced in the pancreas by the islets of Langerhans, which regulates the amount of glucose in the blood

Intel: Microprocessor company

Interactive agent: See Chatbot

Interferon: Immune system cytokine

Interleukins: Immune system cytokine

Internet (Net): Worldwide network of computers

Internet Explorer: Microsoft browser

Internet of Things: Computing devices embedded in everyday objects, enabling them to send and receive data.

Interoperability: Practical implementation and application of vertical integration within the health care industry

itis: Suffix for inflammation

K-means clustering: An iterative algorithm that tries to partition the dataset into K pre-defined distinct non-overlapping sub-groups (clusters)

Karyotype: Overall number and shape of all your chromosomes

Knowledge-based systems (Expert systems): Contain medical knowledge, usually about a very specifically defined task, and they can reason with data from individual patients to come up with reasonable conclusions.

Labeled data: Usually associated with machine learning

Leflunomide: See DMARD

Leukemia: A cancer of bone marrow; creates abnormal WBCs

Leukocytes: White cells that help the body fight bacteria and infection

Limbic system: Set of structures in the brain that deal with emotions and memory

Linear algebra: Branch of mathematics concerning linear equations such as linear functions such as and their representations in vector spaces and through matrices

- Long haulers: Post-infectious COVID-19 patients with prolonged symptomatology
- Long-term memory: Associated with the limbic hippocampus (similar to long-term computer memory)
- Lymphatic system: Network of tissues and organs that help rid the body of toxins, waste, and other unwanted materials
- Lymphocyte ($T_{H,S,C,M}$ and B, B_M): Cellular component of the immune system
- Lymphoma: Cancers of the immune system causing abnormal lymphocytes to become lymphoma cells
- Machine learning: Principal learning process in AI
- Masking effect: Steroid reduction of inflammatory symptoms
- Megabyte: 10^6 or 1,000,000 bytes
- Megahertz (MHz): One million hertz (one cycle per second)
- Memory networking (ANN): Artificial neural networking (ANN) using RAM (random access memory (analogous to the hippocampus))
- MERS-CoV: Middle East respiratory virus
- Methotrexate: See DMARD
- Microbiome: Genetic material of all the microbes – bacteria, fungi, protozoa, and viruses – that live on and inside the human body
- Microchip: see Semiconductor
- Microprocessor: An integrated circuit that contains all the functions of a central processing unit of a computer.
- Microsoft's Project Hanover: Precision medicine program
- Molecular biology: Branch of biology that deals with the structure and function of the macromolecules (e.g., proteins and nucleic acids) essential to life.
- Molecular genetic tests: Gene tests
- Molecularly targeted therapies: Cancer treatment
- Monoclonal antibodies: Immune system modulators
- Monocytes: See non-granular leukocytes
- mRNA: Messenger ribonucleic acid)
- Multi-core processor: A single computing component comprised two or more CPUs that read and execute the actual program instructions

- Multi-omics: Genotype–phenotype data through genome-wide association studies (GWAS)
- Multimorbidity: see Concurrent Medical Conditions
- Multivariable calculus: The extension of calculus in one variable to calculus with functions of several variables
- Mutation: Changing of the structure of a gene, resulting in a variant form that may be transmitted to subsequent generations, caused by the alteration of single base units in DNA, or the deletion, insertion, or rearrangement of larger sections of genes or chromosomes; see gene mutation
- Naproxen: A non-steroidal anti-inflammatory drug (NSAID)
- Natural language generation (NLG): Software process that transforms structured data into natural language
- Natural language processing (NLP): A subfield of linguistics, computer science, information engineering, and artificial intelligence concerned with the interactions between computers and human (natural) languages, in particular how to program computers to process and analyze large amounts of natural language data.
- Natural language understanding (NLU): Understanding NLP
- Naught point: Null point for infectious spreading (R_0)
- Neoplasm: A new and abnormal growth of tissue in some part of the body, especially as a characteristic of cancer
- Neoplastic: Relating to a neoplasm or neoplasia
- Neural network (NN): A computer system modeled on the human brain and nervous system; see deep neural network (DNN), artificial neural network (ANN)
- Neuron: Specialized cell transmitting nerve impulses; a nerve cell
- Neuroplasticity: Brain plasticity that refers to the brain's ability to change throughout life
- Neuroscience: The scientific study of the nervous system
- Neurotransmitters: A chemical substance that is released at the end of a nerve fiber by the arrival of a nerve impulse and, by diffusing across the synapse or junction, causes the transfer of the impulse to another nerve fiber, a muscle fiber, or some other structure

- Neutralizing antibodies: Defends a cell from a pathogen or infectious particle by neutralizing any effect it has biologically
- Neutrophils: Type of white blood cell that helps heal damaged tissues and resolve infections
- Next-generation sequencing or next-gen sequencing (NGS): A high-throughput method used to determine a portion of the nucleotide sequence of an individual's genome; see Sanger Method
- Non-granular leukocytes: Monocytes, T-cell lymphocytes, B-cell lymphocytes
- Non-self: Antigen
- Novel coronavirus (nCoV): A new strain of coronavirus that has not been previously identified in humans
- NSAIDs: Nonsteroidal anti-inflammatory drugs; see aspirin, ibuprofen, naproxen
- Nucleotide bases: Adenine (As), thymine (Ts), guanine (Gs), and cytosine (Cs)
- Omics: "Field of study" suffix
- Oncogene: Cancer gene
- Oncogenesis: Random genetic error
- Oncology: Study and treatment of cancer and tumors
- Operating system (OS): Software that supports a computer's basic functions, such as scheduling tasks, executing applications, and controlling peripherals
- Optical drive: A computer system that allows users to use DVDs, CDs, and Blu-ray
- Opsonization: Altering of bacteria by opsonins so as to become more readily and more efficiently engulfed by phagocytes
- Overshoot: Continued infection after R_0 Naught
- P4 Medicine (Systems medicine): A plan to radically improve the quality of human life via biotechnology
- p53 Gene: Makes a protein that stops mutated cells from dividing; "guardian of the genome."
- PALB2: Gene for breast cancer
- Pandemic: A disease prevalent over the whole world

Pathogen: Microorganism causing disease

Pathogenesis: Natural history of a disease

Pathology: The bioscience of the causes and effects of diseases, especially the branch of medicine that deals with the laboratory examination of samples of body tissue for diagnostic or forensic purposes

Pathophysiology: The disordered physiological processes associated with disease or injury

PCR: Polymerase chain reaction viral antigen diagnostic test

PD 1 and 2: Programmed cell death protein inhibitors

Peripherals: Any external device that provides input and output for the computer

Perivasculitis: Inflammation of the adventitia of a blood vessel or a lymphatic vessel or of the tissues surrounding it

Personalized health care: Precision health care

Personalized medicine: Precision medicine

Phagocyte: Free-living one-celled organism that ingests or engulfs other cells or particles

Phagocytosis: Process by which certain living cells called phagocytes ingest or engulf other cells or particles

Pharmacodynamics: Branch of pharmacology concerned with the effects of drugs and the mechanism of their action

Pharmacoeconomics: Branch of health economics which deals with identifying, measuring, and comparing the costs and consequences of pharmaceutical products and services

Pharmacogenetics: Study of how people respond differently to drug therapy based upon their genetic makeup or genes

Pharmacogenomics: Study how an individual's genome can impact their responses to medication

Pharmacovigilance: The practice of monitoring the effects of medical drugs after they have been licensed for use, especially to identify and evaluate previously unreported adverse reactions.

Phenotype: How a trait – genotype – shows on your physical body

Physical distancing: See Social distancing

Platelets: See thrombocytes

Platforms: See frameworks

- Pleiotropic: One gene influences two or more
- Pluripotent stem cells: Cells that can undergo self-renewal and give rise to all cells of the tissues of the body
- Polymerase chain reaction (PCR): Molecular test to detect genetic material of virus using a lab technique
- Polymorphism: Genetic alterations that occur in more than 1 percent of the population
- Polymorphonuclear (PMN): A leukocyte with a variable formed nucleus (e.g., neutrophil)
- Population health: System that allows clinicians and health managers to form customized, proactive care plans for their plan members designed to intervene identified risk factors
- Precision Medicine Initiative (PMI): A long-term research project, involving the National Institutes of Health (NIH) and multiple other research centers, which aims to understand how a person's genetics, environment, and lifestyle can help determine the best approach to prevent or treat disease
- Predictive analytics: Analysis of patient data to determine possible patient outcomes, such as the likelihood of a worsening or improving health condition, or chances of inheriting an illness in an individual's family
- Prescriptive analytics: Machine learning algorithms to perform comprehensive analyses of patient data to improve the quality of patient management
- Preventive care: Flows from predictive care as well as precision care
- Preventive medicine: Preventive care
- Primary care: Gatekeeper, the first point of consultation
- Pro-inflammatory cytokine: Type of signaling molecule that is secreted from immune cells like helper T cells (T_H) and macrophages, and certain other cell types that promote inflammation.
- Progenitor: Originating cause
- Protease: Enzyme which breaks down proteins and peptides
- Proteoglycan: Protein bonded to glycosaminoglycan group
- Proteolysis: Breakdown by protease of proteins or peptides into amino acids

Proteome: Gene protein

Proteomics: Biochemistry, functions, and interactions or proteomes within the body

Proto-oncogenes: Genes that promote cell growth and cellular division

Protocols: Procedure or system of rules governing actions

Public Health Genomics Knowledge Base: Epidemiologic study database

Public health: Branch of medicine dealing with public health, including hygiene, epidemiology, governmental support, and disease prevention

Public health: The art and science of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals

PubMed database: Free resource supporting the search and retrieval of peer-reviewed biomedical and life sciences literature

Python: An interpreted, high-level, general-purpose programming language

Quantum processors: The use of quantum-mechanical phenomena such as superposition and entanglement to perform computation

Quaternary care: More complex care including experimental treatment and highly complicated surgeries

Qubits: Unit of quantum information that can store both 0s and 1s simultaneously, or an infinite number of values in between, in multiple states (i.e., store multiple values) at the same time; see Superposition

R_0 Naught: Null point for infectious spreading

Radiogenomics: Radiographic image analysis used to predict underlying genotypic traits

Radiography: The process or occupation of taking radiographs to assist in medical examinations

Radiomics: Information from large datasets of qualitative and quantitative imaging

- RAM drive: RAM drive (also called a RAM disk) is a block of random-access memory (primary storage or volatile memory) that a computer's software is treating as if the memory were a disk drive
- RAM: Random Access Memory
- Regenerative medicine: The process of replacing or "regenerating" human cells, tissues, or organs to restore or establish normal function; see Stem cells
- Regression analysis (support vector machine): A set of statistical processes for estimating the relationships between a dependent variable (often called the "outcome variable") and one or more independent variables (often called "predictors," "covariates," or "features")
- Regression: Measure of the relation between the mean value of one variable (e.g., output) and corresponding values of other variables
- Rehabilitation: The action of restoring someone to health or normal life through training and therapy after imprisonment, addiction, or illness
- Recombinant: Genetic material formed by recombination (e.g., recombinant DNA)
- Reinforcement learning (RL): Area of machine learning concerned with how software agents ought to take actions in an environment to maximize some notion of cumulative reward.
- Ribosome: A minute particle consisting of RNA and associated proteins found in large numbers in the cytoplasm of living cells
- RNA (Ribonucleic acid): principal role is to act as a messenger carrying instructions from DNA for controlling the synthesis of proteins
- Robotics: An interdisciplinary branch of engineering and computer science (AI)
- Rogue: Out of ordinary, or against the rules (e.g., rogue antigen-presenting complex)
- ROM: Read-only memory
- Rubor: Redness associated with acute inflammation

Safari: Apple browser

SARS-CoV-2: Severe acute respiratory syndrome, novel coronavirus

Secondary care: Specialty care and acute care hospitals (e.g., ER)

Secondary storage device: Backup device to hard drive storage

Semiconductor integrated circuit: A microchip

Semiconductor: A solid substance that has a conductivity between that of an insulator and that of most metals

Seroconversion: A change from a seronegative to a seropositive in blood

Serology: Study or diagnostic examination of blood serum relative to immune response

Siri: Apple Assistant

Smartphone: A class of mobile phones and multi-purpose mobile computing devices.

Social distancing: Maintaining minimum distance between people during epidemic

Sociomarkers: Measurable indicators of social conditions, at the group level to improve disease surveillance, disease prediction, and implementation and evaluation of population health interventions

Software: The programs and other operating information used by a computer.

Solid-state device: Electronic device in which electricity flows through solid semiconductor crystals (silicon, gallium arsenide, germanium)

Somatic mutations: Genetic alteration acquired by a cell that can be passed to the progeny of the mutated cell in the course of cell division

Source code: Text listing of commands to be compiled or assembled into an executable computer program

Spike protein: A protein (S) which protrudes from the envelope of a coronavirus, allowing for entry of the virion into a host cell by binding to an ACE-2 receptor on its surface

Stochastic: Randomly determined

- Stem Cell Core Lab of Columbia University: Precision medicine genetic analyses and molecular interventions
- Stem cell transplantation: Cell replacement therapy
- Storage devices: A piece of computer hardware on which information can be stored
- Sulfasalazine: DMARD
- Subgenomic RNA: Messengers for protein expression or to regulate their viral life cycle
- Supercomputer: A particularly powerful mainframe computer.
- Superposition: The ability of a quantum system to be in multiple states at the same time until it is measured; see Qubits and Quantum processing
- Supervised learning: Labeled data
- Swarms: Collective behavior of decentralized, self-organized systems, natural or artificial employed in work on artificial intelligence
- Synapse: A junction between two nerve cells, consisting of a minute gap across which impulses pass by diffusion of a neurotransmitter.
- System software: Files and programs that make up your computer's operating system
- T-cell lymphocytes: See non-granular leukocytes
- Target code: Fully compiled or assembled program ready to be loaded into the computer
- TCP/IP: Transmission Control Protocol/Internet Protocol
- Telemedicine (aka Telehealth): The remote diagnosis and treatment of patients using telecommunications technology.
- Tertiary care: More highly specialized care including certain surgeries, cancer treatments, and other complicated procedures.
- Thalamus: Limbic nucleus in the midbrain
- Thrombocytes: Platelets aid the formation of blood clots
- Thymine (Ts): Nucleic acid base compound of gene
- TNF- α : Tumor necrosis factor alpha (TNF alpha), an inflammatory cytokine
- Toxin delivery molecules: Cancer treatment

- Training: Procedure used to perform the learning process in a neural network
- Transcriptomics: Expression of the genes' proteins (the proteome)
- Tumor: Swelling in acute inflammation; also a mass of tissue that is formed by an accumulation of abnormal cells
- Ultrasound (Ultrasonography): A technique using echoes of ultrasound pulses to delineate objects or areas of different density in the body.
- Unlabeled data: No explanation, label, tag, class, or name for the features in data in machine learning
- Unsupervised learning: see Unlabeled data
- Urticaria: An outbreak of swollen, pale red bumps or plaques (wheals) on the skin that appear suddenly – either as a result of the body's reaction to certain allergens or for unknown reasons; see Hives
- Vaccination: Treatment with a vaccine to produce immunity against disease; inoculation.
- Vaccine: Biological agents that elicit an immune response to a specific antigen
- Vasculitis: Group of disorders that involve inflammation of blood vessels produced by immune system
- Vertical Integration: Coordination of (health) services among operating units (i.e., providers, facilities [hospitals], insurers) that are at different stages or levels of the process of delivery of patient services
- Vaxign-ML: AI tool to predict COVID-19 vaccine candidates
- Wearable device: IoT (Internet of Things) devices
- Web (WWW or World Wide Web): A way of accessing, viewing, and sharing information over the Internet
- Web browsers: A program with a graphical user interface for displaying HTML files, used to navigate the World Wide Web
- Webcam: A video camera that inputs to a computer connected to the Internet, so that its images can be viewed by Internet users.

Wellness: Includes the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment, and positive functioning

Yahoo: Online directory and search engine on the World Wide Web

Zoonotic spillover: Transmission from animal to human

