

Contributor Roles Crosswalk (V0)

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Concept	Description	CRediT	creditRoleOntology	DCITE	DDI	ISO
archivist	<p>CRO: A professional who assesses, collects, organizes, preserves, maintains control over, and provides access to information determined to have long-term value.</p> <p>DCITE: Institution tasked with responsibility to generate/disseminate copies of the resource in either electronic or print form.</p> <p>DDI: Distributing/disseminating the data to users and making them available for reuse. Maps to 'Distributor' in DataCite.</p>		archivist role	Distributor	DataDistribution	distributor resourceProvider
author	Creation and/or presentation of a published research object, such as books, journal articles, and other publications like technical documentation, web sites, code, ontologies, or data models.	Writing – original draft	author role	creator (element)		originator author coAuthor
background and literature search	Includes literature searches and contributions to review activities (systematic reviews, scoping reviews, etc.)		background and literature search role			
co-author	Creation and/or presentation of a published research object, such as books, journal articles, and other publications like technical documentation, web sites, code, ontologies, or data models.					coAuthor
code review	<p>Examination of software code to identify build-breaking changes prior to acceptance into a codebase.</p> <p>CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</p>	Software	code review role			
collection	Activities to obtain physical objects for research purposes or to add to a collection.		collection role			

communication	Coordination of research dissemination through popular media and the press, as well as community outreach and liaising of project directly to the community.		communication role			
community engagement	A communication role which involves the dynamic relational process that facilitates communication, interaction, involvement, and exchange between an organization and a community for a range of social and organizational outcomes.		community engagement role			mediator
computer programming	Algorithm development and implementation of software in a computer programming language. CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components. DDI: Creating and maintaining software needed at any stage of the data life cycle.	Software	computer programming role		SoftwareDevelopment	
conservator	A person responsible for the preservation of artistic and cultural artifacts.		conservator role			
contact person	CRO: Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource. DCITE: Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource DDI: Individual, or organization that may be reached to obtain data-related information. Maps to 'ContactPerson' in DataCite.			ContactPerson	Contact	pointOfContact
contributor	CRO: A high-level classification of the diverse roles performed in the work leading to a published research output in the sciences. Its purpose to provide transparency in contributions to scholarly published work, to		contributor role	Other	Other	

	<p>enable improved systems of attribution, credit, and accountability.</p> <p>DCITE: Any person or institution making a significant contribution to the development and/or maintenance of the resource, but whose contribution does not “fit” other controlled vocabulary for contributorType.</p> <p>DDI: Use if the role is known but not in the list. Can be mapped to the roles 'RelatedPerson', 'Producer', and 'Work Package Leader' in DataCite.</p>					
contributorship			contributorship			
coordination	The organization of the different elements needed to implement a study.		coordination role			
curator	<p>CRO: Management activities to annotate, maintain, research, and preserve physical objects to maximize their use for research and education now and into the future.</p> <p>DCITE: Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data centre or repository</p> <p>DDI: Performing operations that result in changes to the data, including data cleaning, editing, post- harmonization, etc. Maps to 'DataCurator' in DataCite.</p> <p>CRedit: Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.</p>	Data curation	curator role	DataCurator	DataProcessing	custodian
data	CRO: A role that encompasses effective and efficient operation and usage of data, including, but not limited to management, handling, or manipulation.		data role	DataManager	DataManagement	custodian

	<p>DCITE: Person (or organisation with a staff of data managers, such as a data centre) responsible for maintaining the finished resource.</p> <p>DDI: Development and execution of architectures, policies, practices and procedures to handle data at any stage of its life cycle. Includes processes and activities related to the selection, organization and integration of data, their annotation, as well as their publication and preservation so that the data maintain their value over time, and remain available for reuse.</p>					
Data Acquisition	DDI: Acquiring data and supporting documentation from potential contributors for further preservation and/or dissemination.				DataAcquisition	
data aggregation	The compiling of information with intent to prepare combined datasets for data processing.		data aggregation role			
data collection	<p>CRO: The process of gathering and measuring data, information or any variables of interest in a standardized and established manner that enables the collector to answer or test hypothesis and evaluate outcomes of the particular collection.</p> <p>DCITE: Person/institution responsible for finding, gathering/collecting data under the guidelines of the author(s) or Principal Investigator (PI)</p> <p>DDI: Activities relating to the process of gathering data in an established, systematic fashion that enables answering the stated research questions, testing hypotheses, and evaluating outcomes. Maps to 'DataCollector' in DataCite.</p>		data collection role	DataCollector	DataCollection	
data entry	The process of inputting data into a computerized form.		data entry role			

data integration	The process of combining data from different sources to provide a standardized or unified view.		data integration role			
data modeling	<p>CRO: The process of creating a data model for an information system by applying certain formal techniques.</p> <p>DDI: Creating a data model based on an analysis of data objects and their relationships, data properties, as well as data flows and processes. It is often the first step in database creation, tool and standards development, etc., and typically involves a progression from a conceptual model to a logical model, and then to a physical schema</p>		data modeling role		ProjectOrStudyDesign.DataModeling	
Data Processing Disclosure Control	DDI: Planning or using specific techniques to preserve the anonymity of individual or other entities that the data refer to. For example, anonymization, pseudonymization, or removal of direct and indirect identifiers.				DataProcessing.DisclosureControl	
data quality assurance	A procedure intended to verify the efficiency and reliability of data.		data quality assurance role			
data standards developer	<p>CRO: The process of creating data standards, which are the rules by which data are described and recorded in order to share, exchange, and understand data. Examples include development of an ontology, terminology, code lists, etc.</p> <p>DDI: Developing models for the structure and distribution of data and metadata in fixed, predictable formats. For example, the DATS (Data Tag Suite) for describing biomedical data, the Data Documentation Initiative (DDI) for describing social, behavioral, economic, and health sciences data, etc.</p>		data standards developer role		ProjectOrStudyDesign.StandardsDevelopment	
data transformation	Aggregation, integration, manipulation of data.		data transformation role			processor
data validation	Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of		data validation role			

	results/experiments and other research outputs.					
database administrator	A role usually within the Information Technology department, charged with the creation, maintenance, backups, querying, tuning, user rights assignment and security of an organization's databases.		database administrator role			
device development	CRO: A role charged with conceptualization, design, development and marketing of complex equipment. DDI: Creating and maintaining equipment needed at any stage of the data life cycle.		device development role		EquipmentDevelopment	
digital preservation	A role that includes the formal endeavor to ensure that digital information of continuing value remains accessible, trustworthy, and usable.		digital preservation role			
documentation	A communication role in which one records the details of an event, a process, a workflow, etc.		documentation role			
editor	A person who oversees the details related to the publication format of the resource. Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.	Writing – review and editing		Editor		editor
educational	CRO: A role in which a person participates in the transfer of knowledge and skills, through teaching, development of educational materials or curriculum, through program development or other means. DDI: Imparting information and/or instructions to improve the recipient's performance or to help attain a required level of knowledge or skills related to research or research data. For example, training interviewers, translators, data archivists, or data analysts.		educational role		Training	

educational instruction	An educational role in which knowledge and skills is transferred through teaching.		educational instruction role			
educational material development	An educational role in which a person develops educational or training materials that are intended to transfer knowledge, for use in a classroom, independent learning or other settings.		educational material development role			
educational program development	An educational role in which a person participates in the development of an educational program, designed for learners to achieve a set of competencies around a given topic or area of focus.		educational program development role			
educational training			educational training role (deprecated)			
equipment technician	A person that is responsible for operating equipment or instrumentation and/or that ensures equipment is well-maintained, properly configured, and safely functional.		equipment technician role			
evaluation	Evaluation is a systematic method for collecting, analyzing, and using information to answer questions about projects, policies and programs, particularly about their effectiveness and efficiency.		evaluation role			
figure development	CRO: Preparation, creation and/or presentation of figures for a manuscript, presentation or other use. CRediT: Preparation, creation and/or presentation of the published work, specifically visualization/data presentation. DDI: Representing data, analysis results, or other information as a chart, image or animation, to aid in the understanding of their meaning.	Visualization	figure development role		Visualization	
Funding Or Sponsorship Acquisition	DDI: Searching for, and/or obtaining financial or other type of support for a program or project.				FundingOrSponsorshipAcquisition	
Funding Provision	DDI: Providing financial support to a program or project, usually by an organization or government. Funding is made for a specific				FundingProvision	

	purpose for which the successful applicant must often account in full.					
graphic design	<p>CRO: A communication role that utilizes the art or profession of using design elements (such as typography and images) to convey information, create visualizations, or create an effect.</p> <p>DDI: Combining text and images to support and enhance content, and make it visually appealing and user-friendly.</p>		graphic design role		GraphicDesign	
guideline development	A methodology role that involves development of information that suggests how something should be done.		guideline development role			
hardware systems	An information technology systems role that specifically focuses on the computer hardware, the physical components of a computer system.		hardware systems role			
hosting institution	<p>Typically, the organisation allowing the resource to be available on the internet through the provision of its hardware/software/operating support.</p> <p>DDI: Housing, servicing, and maintaining data and, usually, the accompanying metadata or related documentation. Maps to to 'HostingInstitution' in DataCite.</p>			HostingInstitution	DataHosting	
information technology systems	A role that involves the development, management, and use of computer-based information systems.		information technology systems role			
infrastructure	Contribution to the basic, underlying framework or features of a system or organization.		infrastructure role			
instrumentation	A person that is responsible for usage of instrumentation, such as equipment or devices, or instruments like a survey or questionnaire.		instrumentation role			
intellectual property	A role related to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. from.		intellectual property role			

IT hardware systems design and implementation	A role that includes the design and implementation of the physical components of a computer system.		IT hardware systems design and implementation role			
lay synthesis of research output	A role in which one provides a summary of a research output, such as a journal article, that is understandable by a lay person or non-expert audience.		lay synthesis of research output role			
marketing	A communication role that involves the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.		marketing role			
metadata application	<p>The annotation of data with descriptive information that describes the data (metadata), with the goal of making the data more usable or reusable for future use.</p> <p>DCITE: Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data centre or repository</p> <p>CRedit: Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.</p> <p>DDI: Generating data documentation. For example, a study description covering study rationale, methodology, and other characteristics of the dataset as a whole; variable-level documentation (labels, frequencies, question text); references to study-related materials or publications, etc.</p>	Data curation	curator role metadata application role	DataCurator	MetadataProduction	custodian
networking facilitation	A communication role that encompasses facilitate co-operation between people or organizations.		networking facilitation role			

original draft preparation	Creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation). CRediT: Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).	Writing – original draft	original draft preparation role (deprecated)			
outreach materials development	A communication role that involves development or production of materials, such as brochures, websites, flyers, presentations, etc., for the purposes of promotion of an entity, like a project, group or organization.		outreach materials development role			
owner	party that owns the resource					owner
participant recruitment	Role that involves identifying eligible participants, explaining the study to potential participants, recruiting an adequate sample based on study goals and design, obtaining informed consent/maintaining ethical standards, and retaining participants until study completion.		participant recruitment role			
policy development	Policy development generally involves research, analysis, consultation and synthesis of information to produce recommendations for action by an individual or an organization. It should also involve an evaluation of options against a set of criteria used to assess each option.		policy development role			
preservation	Set of activities aimed at prolonging the life of a record.		preservation role			
principal investigator	key party responsible for gathering information and conducting research CRediT: Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection. CRediT: Acquisition of the financial support for the project leading to this publication.	Investigation Funding acquisition				principalInvestigator
producer	Typically a person or organisation responsible for the artistry and form of a media product.			Producer		

<p>program administration</p>	<p>An infrastructure role that is accountable for management and coordination of a program, to help achieve the program goals.</p> <p>DCITE: Person officially designated as manager of a project. Project may consist of one or many project teams and sub-teams.</p> <p>CRedit: Management and coordination responsibility for the research activity planning and execution.</p>	<p>Project administration</p>	<p>program administration role</p>	<p>ProjectManager</p>		
<p>project management</p>	<p>Planning, management, and monitoring of projects.</p>		<p>project management role</p>			
<p>project member</p>	<p>CRO: Person on the membership list of a designated project/project team.</p> <p>DCITE: Person on the membership list of a designated project/project team.</p> <p>DCITE: A person involved in analyzing data or the results of an experiment or formal study. May indicate an intern or assistant to one of the authors who helped with research but who was not so "key" as to be listed as an author.</p> <p>DCITE: Typically refers to a group of individuals with a lab, department, or division; the group has a particular, defined focus of activity.</p> <p>DDI: Person that contributes and participates as a member in a designated project or project team. Maps to 'ProjectMember' in DataCite.</p> <p>DDI: An individual involved in analyzing the data or the study results, but whose role is to help with the research rather than be a creator. For example, a researcher may seek, and find additional data from another source and correlate it to the study or experiment</p>			<p>ProjectMember ResearchGroup Researcher</p>	<p>ProjectOperations.ProjectMember ResearchGroup Researcher</p>	<p>contributor</p>

	that is being conducted. Maps to 'Researcher' in DataCite. DDI: Group of individuals involved in the research. Maps to 'ResearchGroup' in DataCite.					
protocol creation	A methodology role that involves creation of a detailed plan of a scientific or medical experiment, treatment, or procedure.		protocol creation role			
publisher	party who published the resource			Publisher (element)		publisher
registration agency	Institution/organisation officially appointed by a Registration Authority to handle specific tasks within a defined area of responsibility.			RegistrationAgency		
registration authority	DCITE: A standards-setting body from which Registration Agencies obtain official recognition and guidance. DDI: A standards-setting body from which Registration Agencies obtain official recognition and guidance. For example, the International DOI Foundation (IDF) serves as the registration authority for the International Standards Organization (ISO) in the area/domain of Digital Object Identifiers.			RegistrationAuthority	RegistrationAuthority	
regulatory administration	Manage regulatory and compliance issues for the research project.		regulatory administration role			
related person	A person without a specifically defined role in the development of the resource, but who is someone the author wishes to recognize.			RelatedPerson		
relationship			relationship			
requirements analysis	The tasks that go into determining the needs or conditions to meet for a new or altered software product or project, taking account of the possibly conflicting requirements of the various stakeholders, analyzing, documenting, validating and managing software or system requirements.		requirements analysis role			
research conceptualization	CRediT: Ideas; formulation or evolution of overarching research goals and aims.	Conceptualization	research conceptualization role (deprecated)			

resources	CRediT: Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.	Resources				
rights holder	DCITE: Person or institution owning or managing property rights, including intellectual property rights over the resource DDI: Owning property rights, including intellectual property rights over the resource. Maps to 'RightsHolder' in DataCite.			RightsHolder	RightsHolding	rightsHolder
Rights Management	DDI: Managing licenses for distributed data, tools, and other research materials on behalf of the rights holder.				RightsManagement	
software architecture	Creation of high-level structures of a software system. CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.	Software	software architecture role			
software design	Creation of low-level software component and algorithm design. CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.	Software	software design role			
software documentation	Creation of software documentation. CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.	Software	software documentation role			
software engineering	Systematic application of scientific and technological knowledge, methods, and experience to the design, implementation, testing, and documentation of software.	Software	software engineering role			

	<p>CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</p>					
software systems	<p>An information technology systems role that specifically focuses on the computer software, the non-tangible executable component of a computer.</p> <p>CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</p>	Software	software systems role			
software testing	<p>Verification that software meets requirements; validation that software meets users' needs, identification of software bugs, assessment of software performance and usability.</p> <p>CRediT: Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</p>	Software	software testing role			
sponsor	<p>Person or organisation that issued a contract or under the auspices of which a work has been written, printed, published, developed, etc.</p> <p>DCITE: Person or organisation that issued a contract or under the auspices of which a work has been written, printed, published, developed, etc.</p> <p>DDI: Providing support for research or for other work or activities. Includes in-kind support, for example, providing staff time, facilities or instrumentation. Maps to 'Sponsor' in DataCite.</p>			Sponsor	Sponsorship	sponsor funder

standard operating procedure development	A methodology role that involves the development or creation of an established or prescribed methods to be followed routinely for the performance of designated operations or in designated situations.		standard operating procedure development role			
standards development	The process of creating standards, which are an established norm or requirement in regard to technical systems. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes, and practices.		standards development role			
statistical analysis	CRO: Statistical aspects of research, including data collection, organization, analysis, interpretation and presentation of data from surveys and experiments CRediT: Application of statistical, mathematical, computational, or other formal techniques to analyse or synthesize study data.	Formal analysis	statistical analysis role			
study design	CRO: Detailed design of study components including data collection, analysis, and dissemination. DDI: Describing the rationale, and putting together a specific plan for conducting a study or research project.		study design role		ProjectOrStudyDesign	
supervisory	CRO: Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team. CRediT: Management and coordination responsibility for the research activity planning and execution. CRediT: Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team. DCITE: Person officially designated as head of project team or sub- project team	Project administration Supervision	supervisory role (deprecated)	ProjectLeader WorkPackageLeader Supervisor	ProjectOperations.ProjectLeader Supervision	

	<p>instrumental in the work necessary to development of the resource.</p> <p>DCITE: A Work Package is a recognized data product, not all of which is included in publication. The package, instead, may include notes, discarded documents, etc. The Work Package Leader is responsible for ensuring the comprehensive contents, versioning, and availability of the Work Package during the development of the resource.</p> <p>DCITE: Designated administrator over one or more groups/teams working to produce a resource or over one or more steps of a development process.</p> <p>DDI: Person officially designated as head of a project, or subproject team that carries out the work for developing a resource. The project leader remains closely involved in the work performed throughout the life of the project. Maps to 'ProjectLeader' in DataCite.</p> <p>DDI: Overseeing one or more individuals or teams in their work. Maps to 'Supervisor' in DataCite.</p>					
survey and questionnaire	Creation or refinement of a survey or questionnaire, a list of questions aimed at extracting specific data from a particular group of people.		survey and questionnaire role			
system administrator	A software systems role that involves maintenance and operation of a computer system and/or network.		system administrator role			
systems administration			systems administration role (deprecated)			
team management	CRedit: Management and coordination responsibility for the research activity planning and execution.	Project administration	team management role	ProjectManager	ProjectOperations.ProjectManager	

	<p>CRO: Coordination of diverse team members, often across different disciplines and locations.</p> <p>DCITE: Person officially designated as manager of a project. Project may consist of one or many project teams and sub-teams.</p> <p>DDI: Person officially designated as manager of a project. This function normally has more administrative responsibilities than actual work involvement. Maps to 'ProjectManager' in DataCite.</p>					
technical writing	A documentation role that involves preparation of instruction manuals, journal articles, and other supporting documents to communicate complex and technical information more easily.		technical writing role			
technician	One who is proficient in the relevant skill and technique, with a relatively practical understanding of the theoretical principles.		technician role			
technique development	<p>A methodology role that involves the creation or refinement of a manner or method by which an activity is performed.</p> <p>CRediT: Development or design of methodology; creation of models.</p> <p>DDI: Developing guidelines or protocols for the methods used to conduct the study, and to process and analyze the data. For example, directions and instructions for collecting data, conducting interviews, translating questionnaires, input harmonization, using weights, etc.</p> <p>DDI: Conceiving and planning for the data collection instrument(s). May include the operationalization of concepts into questions and indicators, instrument testing, forward translation and subsequent changes in the master instrument(s), as well as designing</p>	Methodology	technique development role		ProjectOrStudyDesign.InstrumentDesign ProjectOrStudyDesign.MethodologyDevelopment	

	and testing other types of data collection instruments than survey questionnaires.					
translator	<p>CRO: Translating words or text from one language to another.</p> <p>DDI: Expressing the content of text or speech in a different language than the original language used. For example, questionnaire or study report translation.</p>		translator role		Translation	
user	party who uses the resource					user stakeholder
validation	CRedit: Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.	Validation				
website development	<p>CRO: Creation or refinement of a website, a set of related web pages served from a single web domain.</p> <p>DDI: Creating and maintaining a website related to the data. May include web design, building a user interface, network security configuration, etc.</p>		website development role		WebsiteDevelopment	
website maintenance	A method or steps that maintain, update content, clean up, or repair a website.		website maintenance role			
work package leader	A Work Package is a recognized data product, not all of which is included in publication. The package, instead, may include notes, discarded documents, etc. The Work Package Leader is responsible for ensuring the comprehensive contents, versioning, and availability of the Work Package during the development of the resource.			WorkPackageLeader		