

feature	element	definition	examples
scale		What is the scale of study at which the resource is used?	
	whole	In-tact whole brain level including various computational or non-invasive methods	non-invasive imaging, in-tact brain studies, whole-brain circuitry, whole-brain spatiotemporal dynamics
	regions	Regional level including anatomical boundaries and inter and intra regional connectivity	function/region specific studies like visual, attention, prefrontal area, fiber tracking pathways, etc
	cellular	Neuron level including cell body composition and complexity of axons, dendrites and cell-to-cell interaction	neurons, cell bodies, dendrites, axons
	macromol.	Chemical/molecular level including gene and protein interactions	chemical reactions, molecular pathways, gene expression profiling, protein interactions, etc
	all	All of the above	
species		Primary animal model used by the resource	
	primates		human, monkey
	rodents		rat, mice, etc
	insects		fly
	others		worm, zebrafish, birds, etc.
	mammals		cat, elephant, and all mammals
	all	All of the above	
resource_type		What type of neuroinformatics resource does this fall into?	
	software	Applying/supporting automation process that computes and analyzes various kinds of data related to the nervous system	plug-in tools, algorithm-based analytical software, GPU-based super computer, application-based software, hub or repo of software resources
	ontology & data mngmt.	Explicitly sharing & supporting the usage of standard formats and machine-readable ontologies that describe the underlying data models.	dictionaries, term definitions, corpora, data integration practices, formal languages, ontologies, data sharing, standard file formats, mapping of shared data, domain specific search services, literature mining, Formalism for the Representation of Connectivity Structure
	database	Resources that have a formal schema design to organize data. This allows to browse, archive, and search the content in a structured manner through a specific set of variables.	a formal database that the resource uses at the backend
	topical portal	A focused group where a single problem is discussed and supported in a collaborative setting providing open-access to data and supporting tools	wiki, sourceforge, single topic collaborative initiative, resources found via topical portal
	instrumentation	Usually a high-throughput way of acquiring and/or analyzing data by using a combination of hardware and software	microscopy setup for automated sectioning, prosthetic device that helps human condition, cloud computing servers, behavioral data collection apparatus
	atlas	Providing a commonly usable reference template for mapping brain regions in a given species in 2D/3D spatial axes. Such atlases are usually digitally sharable.	magnetic resonance microscopy (MRM) based atlas, neurotransmitter atlas, tract-tracing data based atlas, gene-expression based atlas, talairach atlas
measurement		What are the quantitative measures that the resource is built upon or is used for?	
	anatomical	Study of shape and size related features at both micro and macro level structures	histology, immunohistochemistry, neuronal morphology, stereotactic images, tract tracing pathways, probabilistic fiber tractography, anatomical connectivity, structural imaging, angiography data, any shape related measures

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	functional	To identify and map observed dynamical changes onto known functional states of the brain systems. functional states can be derived theoretically or empirically based on different data sets such as behavioral, physiological, developmental, etc. These experiments usually include data collected at different time points ranging from fractions of seconds to different developmental stages of the model organism.	behavioral measures like attention, speech recognition, etc, fMRI related data, Response Monitoring, Tensor Metric, Volumetric Analysis, Region of Interest, Registration, Resampling, Nonlinear, Surface Analysis, Temporal Convolution - Deconvolution, Hemodynamic Response, Image Display, Rendering, resting state dynamics, functional genomics, developmental stages, information model, visual system, language acquisition, time series data, neural networks, etc.
	physiological	To identify dynamically changing spatiotemporal patterns at various levels (molecular, single cell, network, and in-tact brain) ranging from computational simulations of molecular pathways to electrical recordings from patch clamping to activity response measures from MR imaging and EEG traces.	electrophysiology, action potential propagation, field recordings, EEG/ERP waves, biophysical modeling, physiological changes from T1-weighted MR images, modeling of cellular pathways, optogenetics, photostimulation, any activity related measures
	biochemical	To identify biochemical changes from assays such as gene expression profiling on mRNA and DNA. Usually this involves high-throughput procedures like microarrays.	microarrays, PCR analysis
	all	All of the above	
application		What is the basic utility of the resource?	
	visualization	Analyzing data through 2D or 3D visualization. Almost any kind of neuroscientific data can be visualized (e.g., microscopy, neuroimaging and physiology) as statistical plots, graphical rendering of functional relationships, virtual reality models, etc.	neuroimaging, neuromorphology, movies, graph visualization, brain atlases, microscopic imaging, SEM imaging, in situ hybridization imaging, electrophysiological data visualization, raster plots, spike traces, electron microscopy
	data analysis	Any computational, mathematical or statistical approaches that are used on different types of data for automated or large-scale analysis purposes.	neural circuit analysis, electrophysiological data analysis, quantitative and statistical analysis, data mining, text mining, spatiotemporal analysis
	annotation	Using/supporting existing ontologies for data annotation, search & integration, resource categorization and electronic lab notebook keeping.	lab note book, data annotation, resource categorization, dictionary, tutorial, experimental usage
	modeling & simulation	Simulation of functionally equivalent models or biologically realistic models that provide testable and reproducible results	mathematical modeling, simulations, neuron modeling, network modeling
	neurotechnology	Neuroscience inspired technologies build brain-based devices by emulating one or more behavioral or computational aspects of the higher order brain functions. These technologies are often used in the spirit of improving or repairing brain functions or building smart machines.	neurorobotics, neuromorphic engineering, neural engineering, BCI interfaces, prosthetics, bionic devices, Nintendo Wii Remote
area_of_study		What is the main aim of the resource, how is it helping Neuroscience research? The resources are categorized based on what's known about the resource (e.g., from about pages of their websites)	
	neuroinformatics	A specialized subfield that uses interdisciplinary approaches for organizing & integrating shared neuroscientific data for various purposes such as facilitating computational neuroscience, achieving high-throughput data processing, efficiency and standardization. However, all software resources need not necessarily belong to Neuroinformatics.	image registration, segmentation, reconstruction, filtering, computer vision, brain mapping and atlas, connectomics, data mining, biomechanics, high throughput applications, multiple software compatibilities, integrative tools that use databases and atlases as a medium to achieve primary functionality, parallel computing
	cogn. & behav. neurosci.	A study of understanding the neural substrates of underlying cognition and behavior. This includes neurophysiological experiments studying the cognitive, behavioral, psychological and decision making processes for supporting the development of clinical applications and/or brain computer interface devices.	neuropsychology, learning, movement tasks, speech imagery tasks, visual image reconstruction, wrist displacement, visual grating, virtual reality, etc.

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	comput. neurosci.	A study of brain function using mathematical/computational approaches towards understanding the information processing mechanisms of various neural processes that constitute nervous system.	network modeling and simulations, neuron modeling, mathematical/statistical modeling, study of neural circuits, visual system, systems biology at macromolecular level
	neuroanatomy	Is a study of anatomy and organization of the nervous system at both micro and macroscopic levels.	computational neuroanatomy, neuromorphology, subcellular anatomy, ultrastructural anatomy, ultra neuroimaging, microscopy imaging
	clinical & dev. neurobiol.	Is an area that has high translational research potential in applying neuroscience research for clinical/medical purposes and for studying of fundamental processes that govern normal brain development and function. This usually involves study of data at different time points.	surgery aid, disease related information, medical data analysis, prosthetics, development neuroanatomy, developmental neurophysiology, transgenic animals, aging
	cell., mol., & syst. neurosci.	A study devoted to understanding the role of chemical and molecular composition and interactions that underlie cellular structure and function in conjunction with multi scale understanding of the brain systems. The systems neuroscience tries to understand the nervous system by applying the experimental data that describes the neuronal activity to build coherent computational models that explain how the different units interact with each other in a functional system such as vision, sensation, attention, etc.	molecular neuroanatomy, dendritic spines, neurogenesis, molecular signaling pathways, synaptic plasticity, genomics, neurophysiology, electrophysiology, neuromechanical modeling
user_support		How well are the resources documented for re-usability?	
	user manual	Description about what, how and when to use the resource	documentation, description, tutorial
	FAQs	Quick facts and questions	quick facts, quick statistics, quick tour
	user forum	A dedicated wiki system or user forum to support the users of the resource	mailing list for users/developers/community, bug trackers, bitbucket
	blog/social networking	Links to blogs, facebook or twitter accounts for outreach activities	providing links to blogging/social networking sites
	citations	Books or publications that describe the usage of the resource	resources that have citations by the external users
resource_availability		Sharing the source code or executable with the public	
	open source	Source code, scripts, R programs, etc. are available for download	source code, scripts
	freeware	Software is available for free use	free use
	licensed	Available for purchase	commercial