Cognitive Disabilities: a few definitions from web sites of topic related organisations

Definitions below are provided courtesy of their respective organisation. Please note that these definitions are under the responsibility of these organisations and should not in any circumstances be regarded as representing an official view of the European Commission. The resulting list of examples provided here is not meant to be exhaustive, as other cognitive disabilities are not mentioned. Some of those definitions might also focus on specific aspects linked to the field of activities of those organisations, while it might be possible to find other definitions with a different focus, e.g. ageing or impairing environment.

Definition of the various human functions is available from the WHO Classification http://www3.who.int/icf/onlinebrowser/icf.cfm.

from Ability Hub: http://www.abilityhub.com/cognitive/

A disability that impacts an individual's ability to access, process, or remember information.

from AccessAbility SIG: http://www.stcsig.org/sn/cognitive.shtml

Cognitive is the mental process of thought, perception, reasoning, intuition, and memory. Sufferers may experience confusional states, acute memory disorders, delirium, encephalopathy, dementia, organic brain syndrome, psychosis, or toxic delirium.

from WebAIM: http://www.webaim.org/techniques/cognitive/

The concept of cognitive disabilities is extremely broad, and not always well-defined. In loose terms, a person with a cognitive disability has greater difficulty with one or more types of mental tasks than the "average" person. There are too many types of cognitive disabilities to list here, but we will cover some of the major categories. Most cognitive disabilities have some sort of basis in the biology or physiology of the individual. The connection between a person's biology and mental processes is most obvious in the case of traumatic brain injury and genetic diseases, but even the more subtle cognitive disabilities often have a basis in the structure or chemistry of the brain.

A person with profound cognitive disabilities will need assistance with nearly every aspect of daily living. Someone with a minor learning disorder may be able to function adequately despite the disorder, perhaps even to the extent that the disorder is never discovered or diagnosed. Admittedly, the wide variance among the mental capabilities of those with cognitive disabilities complicates matters somewhat. In fact, one may reasonably argue that a great deal of Web content cannot be made accessible to individuals with profound cognitive disabilities, no matter how hard the developer tries. Some content will always be too complex for certain audiences. This is unavoidable.

Learning disabilities affect a person's ability to process information. In some cases, the individual has difficulties interpreting what is seen or heard. In other cases, the individual can interpret the information but has difficulties making mental connections--or links--between different pieces of information. The person's written or spoken language may be affected, or the ability to read or do math. It is tempting to think that people with learning disabilities have below average intelligence. This is not always the case. Sometimes individuals with learning disabilities excel in areas where they do not have the learning disability. For example, an individual with dyscalculia (math learning disability) may be an excellent writer, artist, linguist, or whatever else. The learning disability might manifest itself only when that person is performing mathematical activities. In other cases, the individual has multiple learning disabilities, or learning disabilities of a broader nature, thus affecting more than one area of learning.

"Dyslexia is one of several distinct learning disabilities. It is a specific language-based disorder of constitutional origin characterized by difficulties in single word decoding, usually reflecting insufficient phonological processing abilities. These difficulties in single word decoding are often unexpected in relation to age and other
cognitive and academic abilities; they are not the result of generalized developmental disability or sensory  
impairment. Dyslexia is manifest by variable difficulty with different forms of language, often including, in 
addition to problems reading, a conspicuous problem with acquiring proficiency in writing and spelling.” -The 
Definition of Dyslexia as adopted by the Research Committee of the International Dyslexia Association - May 11,  

Reading disabilities, such as dyslexia, are the most common type of learning disability. In fact, an estimated 15-
20% of the population has some sort of language-based learning disability. Among these, dyslexia is the most  
common. Evidence suggests that dyslexia is an inherited condition found among both males and females of all  
ethnic backgrounds.

Some people mistakenly think of ADHD [Attention Deficit Hyperactivity Disorder] as a learning disability. It is  
true that some people with ADHD have difficulties learning, but oftentimes this is due to their distractibility,  
rather than to any kind of inability to process information. People with ADHD can be impulsive, easily distracted,  
and inattentive. On a positive note, some people with ADHD are highly creative and very productive in short  
bursts, with an abundance of energy and enthusiasm. On a less positive note, it can be difficult for people with  
ADHD to stick to a task for a long period of time. On the Web, flashing banner ads can be distracting, as well as  
anything that draws a person's attention away from the main content.

Some causes of brain injury include traumatic head injury, stroke, and illness (such as meningitis or brain tumors).  
Every brain injury is different, and there is no reliable way to predict how a person's brain will be  
effected. After a person receives an injury to the head, medical professionals perform a series of neurological and  
psychological examinations to determine what areas of the brain were damaged. Some brain injuries result in  
behaviors that are hardly noticeable at all, whereas others are immediately obvious. The severity of the damage  
will determine how effectively the person will be able to process information on Web pages.

Genetic sources of cognitive disabilities include Down's syndrome, autism, and dementia, in order of least to  
most severe. Some individuals with Down's syndrome are able to function at a high level, while others are more  
limited in the cognitive capacity. The more severe the cognitive disability, the harder it is for the individual to  
comprehend Web content. If a developer wishes to use the Web to communicate to people with severe cognitive  
disabilities, it may be necessary to use little or no text at all. Graphics, audio, video, and animations may be the  
most effective way to communicate to this audience. That does not mean that all of your Web content must  
presented in a graphic-only format. Much of the content of the Internet in general is not even suited to people with  
severe cognitive disabilities. It is simply beyond their capacity to comprehend. However, if you are designing a  
site that is meant to communicate directly with such individuals, you should use as many meaningful graphics as  
possible.

from Tiresias : http://www.tiresias.org/guidelines/cognitive.htm

The type of cognitive impairment can vary widely, from severe retardation to inability to remember, to the  
absence or impairment of specific cognitive functions (most particularly, language). Therefore, the types of  
functional limitations which can result also vary widely.

Dyslexia is a difference in the brain area that deals with language. It affects the under-lying skills that are needed  
for learning to read, write and spell. Dyslexia occurs in people from all backgrounds and of all abilities. People  
with learning disabilities find it harder to learn, but they can do so with help from other people. Learning  
disabilities occur in people from all backgrounds and of all abilities. More males than females have severe  
learning disabilities. Learning disabilities are sometimes known as learning difficulties, intellectual disabilities or  
developmental disabilities. Language can become disordered when parts of the brain that store words and  
organise sentences become damaged or disrupted. This disorder is known as aphasia or dysphasia. The types of  
neurological disorders that cause aphasia are usually ones that occur suddenly, such as stroke or head injury,  
where some degree of recovery is usual. There are a number of broad types of aphasia. The term dementia  
describes a group of symptoms caused by the impact of disease on the brain. Symptoms typically include  
problems with memory, speech and perception. Short-term memory is usually affected. Long-term memory may  
be retained Alzheimer's disease is the most common cause of dementia. Seizures occur when nerve cells in the  
body misfire. Types of seizures vary. Recurrent seizures from one of many chronic processes are considered  
epilepsy. However, seizures are not considered to be epilepsy if they occur only once or are correctable.