Digital Signage Terms and Definitions

By Michael Katz

- **Aspect ratio** — describes the ratio between the width and height of an image or screen.

- A **monitor bezel**, or **screen bezel** — the area of a display that surrounds the screen**.**
For example**,** if a monitor has a 1-inch bezel, the screen is surrounded by one inch of plastic or metal.

- **Cache server** — works locally (on the client's LAN, not from a data center/internet) to load and/or even stream content to players that cannot cache, namely virtual players due to their own technology limitations. If internet connection fails, then the player will play no more than the current browser cache it has, which is small or it stops working immediately on internet shutdown.

- **Configuration —** License fee — configure players, software/server setup, third party connections.

- **Content management system** (**CMS**) — a computer software used to manage the creation and modification of digital content.

- **Content** — includes images, video, media loops, web pages, RSS feeds, video services, streaming, documents or PDF, text, audio, icons and others.

- **Colocation center** or "carrier hotel" — a type of data center where equipment, space, and bandwidth are available for a monthly rental.

- **Cloud computing** — the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user. The term is generally used to describe data centers available to many users over the internet.

- **EDID** — Extended Display Identification Data — metadata format for display devices to describe their capabilities to a video source (e.g. graphics card or set-top box).

- **Evergreen Content** — visual content that constantly plays in the background (aka widget).

- **Fascia** — any surface on the outside of a store that displays the company name, company logo and company color scheme. The **fascia** is the most visible part of a retail brand - it is the name of the retailer, but it is also the logo and the graphics.

- **FICC** — Fixed Income Clearing Corporation.

- **FID** — Financial Information Display.

- **Hot Folders** — departments can share content, read access, others can point into one of their layouts, sharing across departments, do not have to log into the portal.

- Human Senses: Quoted from www.7senses.org.au
    - **Sensory integration** — the neurological process that organizes sensations from one's body and from the environment and makes it possible to use the body to make adaptive responses within the environment. To do this, the brain must register, select, interpret, compare, and associate sensory information in a flexible, constantly changing pattern. (A Jean Ayres, 1989) Sensory Integration is the adequate and processing of sensory stimuli in the central nervous system – the brain. It enables us to interact with our environment appropriately.

    - **Sensory processing** — the brain receiving, interpreting, and organizing input from all of the active senses at any given moment. For every single activity in daily life we need an optimal organization of incoming sensory information. If the incoming sensory information remains unorganized – e.g. the processing in the central nervous system is incorrect - an appropriate, goal orientated and planned reaction (behavior) relating to the stimuli is not possible.

    - **Sight** or vision — the capability of the eyes to focus and detect images of visible light and generate electrical nerve impulses for varying colors, hues, and brightness. Visual perception is how the brain processes these impulses – recognizing, differentiating, and interpreting visual stimuli through comparison with experiences made earlier in life. The visual system is very important in regard to learning to read, write and count and lots of other qualities that are important to be successful in school and work life. Visual perception is divided into five areas: Visual-motor coordination; Figure-ground perception; Form constancy; Position in space; and Perception of spatial relations. Activities the help sharpen our visual sense:
        - Finding things on a picture with a busy background
        - Comparing objects with minimal differences/pay attention to details
        - Matching objects
        - Separating overlapping objects in a busy picture
        - Making sense of things that are only partly visible
        - Playing with optical illusion

    - **Smell** or olfaction — our ability to detect scent – chemical, odor molecules in the air. Our olfactory system begins in our nose which has hundreds of olfactory receptors. Odor molecules possess a variety of features and, thus, excite specific receptors strongly. This combination of excitement is interpreted by the brain to perceive the 'smell'. How olfactory information is coded in the brain to allow for proper perception is still being researched and the process is not completely understood, however, what is

known is that the chemical nature of the odorant is particularly important, as there may be a chemotopic map in the brain. Great olfaction provides lots of aspects that often relate to the world of joy. People with a well working olfactory sense enjoy a better awareness of the environment. Just imagine the smell of freshly mowed lawn, homemade cake or the sea breeze and realize the effect of just the thought of it. Also, the gustatory sense is enhanced when the sense of smell is working properly. Further, our olfactory sense safes us in situations of danger e.g. fire/smoke or food that is off. Activities to stimulate the olfactory system:

- Smell tubes with inbuilt fans (insert herbs, essential oil, flowers)
- Smell boxes. They contain different smells are used blind-folded
- Walk through Sensory Gardens
- Food stands in 7 senses streets on activity day

- **Taste**, or gustation — refers to the capability to detect the taste of substances such as food, certain minerals, and poisons, etc. The sense of taste is often confused with the "sense" of flavor, which is a combination of taste and smell perception. Humans receive tastes through sensory organs called taste buds concentrated on the upper surface of the tongue. There are five basic tastes: sweet, bitter, sour, salty and umami. The sense of taste is well developed at birth and diminishes when we grow older. In the early years sweet sensations are preferred and as we age the sense of taste changes and differentiates tastes (gustatory stimuli) better. Like the sense of smell our gustatory sense serves highly our joy/quality of life but also our protection: It warns us in relation to poisonous things we might ingest. The ability of taste can be decreased through smoking, alcohol, environmental pollution, viruses, bacteria, etc.

- **Hearing** or audition — is the ability to perceive sound by detecting vibrations, changes in the pressure of the surrounding medium through time, through an organ such as the ear. As with sight, auditory processing relies on how the brain interprets, recognizes, and differentiates sound stimuli. The auditory system differentiates between:
    - Localization: where does the noise come from?
    - Differentiation: Is it "log" or "lock"?
    - Interpretation: that noise is the school bell, not a mobile phone.
    - Memorizing: to be able to memorize multiple numbers and Activities/ environments that stimulate the auditory sense:
    - An echo-box to walk into and talk and make sounds
    - A walk-in quiet box / room
    - Headphones (with/without any music, noises)
    - Musical instruments like drums, xylophones, gongs, triangles etc.
    - Flow of water

- **Touch** or somatosensory — is a perception resulting from activation of neural receptors, generally in the skin including hair follicles and a variety of pressure receptors respond to variations in pressure (firm, brushing, sustained, etc.). The

somatosensory system is a diverse sensory system that is spread through all major parts of our body. At its simplest, the system works when activity in a sensory receptor is triggered by a specific stimulus (such as heat); this signal eventually passes to an area in the brain uniquely attributed to that area on the body and this allows the processed stimulus to be felt at the correct location. There are active and passive touch experiences. The passive touch experiences are of a mechanical nature and are, for example, provided through surfaces that we meet by sitting or leaning on them, breezes hitting our skin etc. The active touch experiences are chosen active exploration of objects and add to our knowledge about the environment we live in. When we actively explore a stick, its surface might be moist, sticky, rough, bumpy, warm. After numerous times of exploring different sticks, we know how to categorize different features of a stick without the need to touch it again and again. Activities to promote a well working somatosensory system:

- brushing over the skin with different textures/brushes
- creative wall with different surfaces made of sandpaper, wool, cotton wool balls, dried peas
- playing with play dough, mud, clay, water, and sand
- rolling over grass, snow, sand, carpet.

- **Vestibular** — The vestibular system explains the perception of our body in relation to gravity, movement and balance. The vestibular system measures acceleration, g-force, body movements and head position. Examples of the vestibular system in practice include knowing that you are moving when you are in an elevator, knowing whether you are lying down or sat up, and being able to walk along a balance beam. One important function of the vestibular system allows us to coordinate our eye movements with our head movements. This occurs in activities such as copying from a blackboard, turning our head to watch a moving object, and looking across a page to read. It also helps us to develop and maintain our muscle tone, which allows us to hold our body in position, to maintain positions and to hold our head up. Also, the vestibular system influences our balance, equilibrium, ability to coordinate both sides of our body and some aspects of language. Activities that fine-tune our vestibular system:
    - swinging, spinning, merry-go-rounds
    - doing activity while lying on your stomach holding your head up
    - active movements like jumping, hopscotch, rolling downhill

- **Proprioception** — the sense of the relative position of neighboring parts of the body and strength of effort being employed in movement. This sense is very important as it lets us know exactly where our body parts are, how we are positioned in space and to plan our movements. A proprioceptive system that works properly functions without vision. Examples of our proprioception in practice include being able to:
    - Clap our hands together with our eyes closed
    - Write with a pencil and apply with correct pressure
    - Navigate through a narrow space.

- Judge distances so we do not run into things. The proprioceptive system is activated through push/pull type activities, jumping and activities that involve weight and deep pressure or firm touch. This kind of sensation is often calming and may be helpful to a child who becomes easily disorganized.

- **iFrame** — tag specifies an inline frame which is used to embed another document within the current HTML document.

- **Pixel pitch** —the density of pixels. A smaller **pixel pitch** indicates higher pixel density and higher resolution. **Pixel pitch** is important because it influences viewing distance. The smaller the **pixel pitch**, the closer the viewing distance**.**

- **Procedural Animation** — dynamically generated and trigger-based animated content; always changing and better than video, which is repetitive, especially on large video walls.

- **Proof of Play** — Accessed through the connection, status, and condition lights along with the screen snap function.

- **Published** — Saved.

- **Push and Store** — server pushes content and player stores content perpetually until such time as the schedule tells it to play content — pertaining to if the player gets disconnected from the Internet, that player still shows scheduled content.

- **Raster** — In computer graphics, a **raster** graphics or bitmap image is a dot matrix data structure that represents a generally rectangular grid of pixels, viewable via a monitor, paper or other display medium. **Raster images** are stored in image files with varying formats. **Raster** graphics are best used for non-line art images, specifically, digitized photographs, scanned artwork or detailed graphics. Non-line art images are best represented in **raster** form because these typically include subtle chromatic gradations, undefined lines and shapes and complex composition.

- **Resolution** — describes the visual dimensions of any given display. Expressed in terms of width and height, monitor resolution is comprised of a specific number of pixels. In the case of a monitor with an industry standard Full HD **1080p** resolution, this display has a resolution of **1920x1080.**

- **RSS Feeds** — a web feed that allows users and applications to access updates to websites in a standardized, computer-readable format.

- **Scaling** — force resolution to fit the screen.

- **Templates** — create media zones.