

**Technical standards to implement Digital out of home Advertising****Prof. Abeer Hassan Abdo**

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[gamilnahla@yahoo.com](mailto:gamilnahla@yahoo.com)**Abstract:**

Digital out of home advertisement is characterized as one of the most widespread and influencing advertisements on large audiences, and it is considered one of the most prominent means of advertising, and it has criteria and characteristics that distinguish it from other types of advertising.

The research deals with studying and setting technical standards for designing and directing the external mobile advertisement and employing it according to the conditions and nature of the Egyptian environment and the ways to achieve the goal of the advertisement. And the current research is similar to the previous study under the title (advanced knowledge frameworks in the concept of external advertising), Journal of Science and Arts, Studies and Research. Egypt, 2012, Abeer Hassan Abdo, where the previous study examines the standards, techniques and rules for designing external advertising in all its traditional and unconventional media, while the current study examines mobile external advertising only.

Motion digital out of home advertisement affects the appearance of the outdoor environment in which the advertisement is displayed. One of the requirements of the advertisement is to balance the requirements of good design with the nature of the advertising display environment. Also contributing to beautifying the Egyptian environment and preserving road safety from accidents or road and traffic hazards.

Advertising content is usually designed by advertisers and advertising agencies, and below are the design content specifications that a designer needs to produce a DOOH ad (Abrons 2019, 60):

1. Ad Duration, Show Duration, Showtimes.
2. Advertising capabilities: fixed digital advertisement, mobile ad, data-based ad, real-time (live broadcast) etc.
3. The size of the bulletin board.
4. Resolution and aspect ratio.
5. The ability to add sound.
6. File type and maximum file size.
7. Video codec type.

### **Technical standards to avoid any problems during the implementation stages of the motion digital out of home advertising:**

1) The resolution of the animated ad file varies depending on the screen area on which the ad is shown. the resolution is different because it measures the number of points per inch per pixel in the design as it differs according to the sizes of the different screens Such as:

- 540 x 960 quarter HD
- 720 x 1280 Standard HD / HD Ready
- 1080 x 1920 Full HD
- 2160 x 3840 Ultra HD

2) The output of the DOOH ad file differs from any other file in the specifications in terms of file size. The large file does not meet the requirements for advertising on digital screens. The 2-3MB file is ideal for viewing and of high quality, suitable for remote file management over the Internet without loss. The file can be compressed without losing ad quality via video file compression applications such as Hand brake.

3) Advertising content that relies on broadcasting live broadcasts, news and social media requires audio attachment. You must follow the criteria for adding sound that are appropriate to the ad serving environment. This can be controlled via the YouTube app to display the playlist of custom ads.

4) According to a study conducted by Intel, mobile advertising content attracts the attention of the public in general more than five times the fixed content. But consider the criteria, which include simplicity in the movement of objects as well as simplicity in Transition between scenes. That is, using the movement in a simple and non-exaggerated manner and avoiding many deviations in the movement that can distract and confuse the audience.

5) The use of the interactive feature attached to the digital displays is determined by the environment in which the screen was attached. For example: the use of the gestures feature or the camera interaction feature is not appropriate for the most popular or crowded commercial centers or metro stations and transportation due to the severe crowding in those sites, which causes confusion and anxiety as a result of the presence of the advertisement. Therefore, the characteristics of the visiting audience and the nature of the advertisement site must be taken into account before attaching any of the interactive features to it.

6) Using a timetable to display the advertisement in a specific time period, according to the period of the audience's visit or its presence at the place of the ad's display, helps to avoid the public's aversion to the display of the ad. Also, avoiding the distance between the ad frequency and distance guarantee that audiences see the ad while it is on the ad site.

7) Determining the appropriate time period for the nature of the advertisement site and road specifications helps to avoid accidents or hinder the movement of the audience receiving the advertisement.

### **Digital motion advertising design using the storyboard design:**

Storyboards are "a visual reference depicting a specific scene or action, usually taken from a scenario or another form of written story." Storyboards are used as a communication tool to prevent costly mistakes due to disappointing or unexpected results. Storyboards can also be

used to communicate with a wider audience in terms that anyone can understand. Storyboards can cover complex concepts and manipulations through the use of images and text.

The main purpose of storyboards is the general perception of the idea of advertising. These graphics are used for brainstorming as a way to visualize advertising ideas, and the storyboard can be used to illustrate the idea of advertising and how the design will be built or modified. Storyboards show story stages or a series of events in order to show content and links to subsequent screens. Business groups use the storyboard as a problem solving and strategic planning as a design tool to prepare motion ads.

### **Motion digital out of home advertising display program:**

The presentation software is the backbone of the solution to the problems of digital displays. Helps with digital processing and management to deliver content to the display and keep it running.

There is a wide range of presentation programs. However, selecting the right program begins with analyzing your goals and advertising content strategy. By deciding which display program best meets the needs of the advertising content, it achieves the desired goals.

The digital signage media player is the computer that displays fixed or mobile digital advertising content. Digital screen players have a small size that is easy to attach to the display unit. Media players are easy to setup, just need to be connected to a power source, digital screen, and internet access is optional. It can be installed on flat surfaces, or can be attached to the display using mounting equipment or adhesives (Dell, Intel 2019).

Media player storage is based on a content management system. The content can be stored either on the Internet or on the media player itself. Rise Vision temporarily stores photos and videos on your media player, so that if something happens on the internet, the content can be viewed without internet.

### **Interactive Motion digital out of home advertising:**

Interactive advertising brings high levels of audience engagement and attention grabbing. Interactive content creates surprising experiences and fixes in memory, this is one of the most exciting trends in the field of DOOH, through the use of a wide range of technologies available for advertising development, and the following are presented by these technologies:

- 1) Touch screen technology: Touch technology enables physical interaction with the screen.
- 2) Gestures: Infrared-based cameras can be used to translate user gestures into interactions with the advertisement.
- 3) Recognition technology: A technique with the ability to know who looks at the ad or what is close to the screen and when, and then interact with the design according to this information.
- 4) Camera - based technology: depends on the recipient interacting with the camera to change the content of the advertisement and interact with him in person.
- 5) Smartphone interaction technology: Depends on the recipient's interaction via smart phone to share with the advertisement content.
- 6) Built-in or virtual reality technology: by using tools that make the audience live an exciting experience with advertising. In order to attract attention and enhance the mental image of the product.

7) Physical or kinetic interaction technology: By attaching a sensor, it converts that physical movement into digital content within the advertisement.

### **Programmatic of Motion digital out of home advertising:**

DOOH requires an external digital mobile advertising system to manage digital content that will be displayed on the screens of digital external advertising, to help control the content easily without providing the digital screens with any additional controls. The most famous of these systems or programs in terms of ease of control and programming and do not need to resort to a programmer to do this task. It is called a Content Management System (CMS).

**Can refer to a set of questions to adjust the ad serving problems in terms of the environment and location of the ad. And make sure to achieve the goal of the ad taking into account that there are no problems during the ad. These are (Mary et al. 2011,40):**

1. The nature of the advertisement site:

Is the proposal compatible with the current or required future nature of the site or the local environment in which it is proposed to be?

- Is the goal of the advertisement compatible with the location of the advertisement and the nature of the region?

2. The aesthetic aspect of the advertisement site:

Does the proposal detract from the comfort or visual quality of any environmentally sensitive areas, heritage areas, natural protected areas, open areas, waterways, rural landscapes, residential areas?

3. Views:

- Views of the ad give a vague impression, or display content flexibly?

- Does the content affect the mental image of the ad or reduce the quality of the product or service?

- Does the ad respect the rights to view other ads?

- Is the viewing time for the ad consistent with the nature and specifications of the site?

4. General view of roads, buildings and landscapes:

- Is the size, percentage, and shape of the ad unit appropriate to the road area, area, or landscape?

Does the advertisement affect the general shape of the road area, environment, or landscape?

Does advertising reduce clutter by streamlining and simplifying the distribution of existing ad units?

- Is ad serving annoying when viewing?

- Is advertising in the form of buildings, installations, or tree curtains on site?

5. Location and building:

- Does the ad unit comply with the metrics, ratio, and other characteristics of the site or building, or both, where the ad unit will be placed?

- Does the ad respect the distinctive features of the site, building, or both?

- Does it appear innovative in choosing an ad unit with site or building specifications, or both?

6. Ad unit devices and notifications:

- Are any controllers, lighting devices, or safety notices appended as an integral part of the display or unit that will be shown to it?

#### 7. Light:

- Will the lighting lead to an unacceptable glow?

Will lighting affect pedestrian, vehicle or aircraft safety?

Will the lighting diminish the benefits of any facility or other form of advertising site?

- Can the light intensity be adjusted, if necessary?

Is lighting subjected to self-control?

#### 8. Safety:

- Will advertising reduce the safety of any public road?
- Will the advertisement reduce the safety of pedestrians, cyclists?
- Will advertising reduce children's safety by blocking lines of vision from public areas?

### **Standards for organizing the display of external mobile digital advertising in terms of location and advertising environment to avoid any problems (Mary et al. 2011,40):**

1. Take into account that the advertising banner does not hinder the driver's vision of the road or other vehicles, cyclists or pedestrians, especially at places of transit.
2. Consider that the ad unit does not obscure traffic lights and warning signs for road safety and directions.
3. Avoid containing the advertisement visual signs for the driver that give road directions data that are different from the actual directions.
4. Observe the safe viewing distance for intersections, slopes, traffic control signs or sharp curves, or less than the safe stopping distance from pedestrians or bicycle crossings to avoid hazards in the road environment.
5. Consider that the advertisement does not interfere with the effectiveness of the traffic control device (for example, by imitating the traffic control device, or by including content that can be interpreted as giving traffic instructions, or by using flashing lights near traffic lights).
6. Consideration that the advertisement does not attract the driver's attention away from the road environment for a long period of time. For example, a driver should not have to direct his head off the road and traffic stream components to see the advertising message.
7. Consider that the ad unit does not create light reflections in the driver's line of sight. To avoid road hazards for motorists.
8. Observe the dimensions of the ad units so that they do not obstruct the movement of viewers or vehicles. Whether vertical or horizontal obstruction to the ad site.
9. Consider adjusting the lighting levels according to the environment surrounding the digital display. To prevent the glare problem which distracts drivers of vehicles.
10. The time-lapse time for change between two ads on digital screen displays is not more than one second.
11. Consider security factors for ad display units. To preserve the unity of digital advertising and advertising content.

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