



Digital Content and Media Expert

## Digital Content and Media Expert



1

### Housekeeping

- After the class, you will receive an email from DSEG with a link to the DSEG site, where you can review the class and take the exam online. Be aware this might be caught in your spam filters.
- The exam is open book. It takes 80% to pass, and your DCME certificate will be downloadable upon completion.
- You are able to download a full PDF of the course for reference.
- Upon passing the exam, you may use the designation DCME as part of your credentials. Logos are available upon request.
- Finally, with completion of any of the DSEG certifications, if you need advice, product recommendations, application engineering support, etc., we are happy to provide that at no cost to you.



2

## Special Acknowledgement

- As a part of our mission, the Digital Signage Experts Group is founded on the input of recognized experts in the industry. Nowhere is this more evident than those who helped, supported, and contributed to the DCME.
- We would like to acknowledge and thank the following people as those who selflessly contributed their time and their knowledge for the greater good of the industry, and content understanding, creation, and deployment in particular:
- **Ryan Cahoy** – Director of RISEDISPLAYS
- **Jim Nista** – Principle of Content Creation Services, Nista Design
- No matter what section of the digital signage industry that a person resides in, one fact that we can all agree upon is that content is critical. The method to deliver the messages set forth in the objectives that should be the central focus points of each display that is deployed.



## The DCME Journey

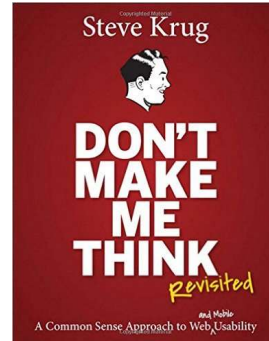
- Content: Right time, right place, etc.
- Physical properties of content
- From the Experts: Design 101
- From the Experts: Design Tools
- Content Providers and outsourcing
- Cost of content
- Analytics and measurements
- Explore applications and venues
- The 7 Key Elements
- Evolution of communications and traits
- Importance and relevance of content
- Importance of a Business Strategy
- Return on Content
- Digital Signage Business Models
- Viewer Engagement
- What Good Content Does



## The Book

Don't Make Me Think!

- As we progress through the course and engage you with the elements of content, content design, and content creation... keep in mind that less is more.
- Keep it Stupidly Simple!
- Don't make me think...



 DCME Digital Content and Media Expert

## Simplicity Rules!

Making the simple  
 complicated is commonplace;  
 making the complicated  
 simple, awesomely simple...

**That's creativity**

Charles Mingus

 DCME Digital Content and Media Expert



## The Mind Fills in the Blanks

almost  
**50%**  
of your brain  
is involved in  
**visual processing**

**70%**  
of all your  
**sensory receptors**  
are in your eyes

**0:01**  
seconds  
we can get  
the sense of a  
**visual scene**  
in less than  
1/10 of a second

DCME Digital Content and Media Expert

## In Front of My Very Eyes

- In a New York Times article, they stated that 68% of people see dynamic digital signage every day.
- The Wall Street Journal reports that people spend 8 hours a day on average in front of a screen of one type or another every day.
- According to a recent Arbitron study, one in three consumers stated they made an unplanned purchase after seeing a product advertised on a digital sign.
- Research shows digital signs receive up to 10 times more eye contact than traditional static signage.



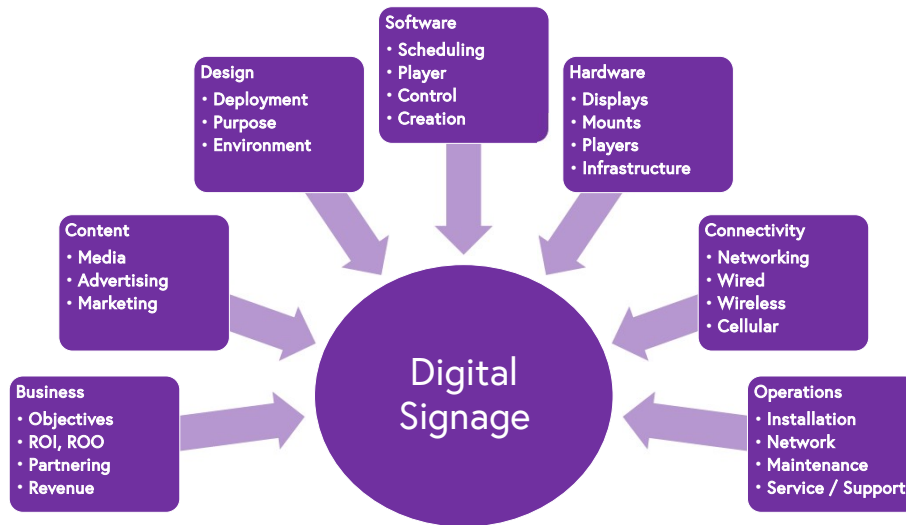
DCME Digital Content and Media Expert

## The Digital Signage Ecosystem

- The 7 Key Elements of Digital Signage is a convenient tool to understand the different segments that make up a digital signage system.
- As you look at the following graphic in order of difficulty, the first order of business is the creation of the business plan, the objectives, and the financial aspects of a digital signage network, that must be completed before moving forward.
- You will also note that content is second only to business in terms of its importance and complexity.
- Content delivers the message that meets the objective of a digital signage network.



## The 7 Key Elements of Digital Signage



## It Starts with Communication

Milestones in Communication



11

## Understanding Communication

It Starts with Communication

12

- **Communication:**
  - Conveys information through the exchange of thoughts, messages, or information, by speech, visuals, signals, writing, or behavior.
  - Requires a sender, a message, and a recipient.
  - Can occur across vast distances in time and space.
  - Requires an area of communicative commonality.
- Communication is complete once the receiver has understood the message of the sender.
- Communication is a process where meaning is assigned/conveyed to create shared understanding.

This process requires a vast repertoire of skills in interpersonal processing, listening, observing, speaking, questioning, analyzing, and evaluating... and thus enables collaboration and cooperation.

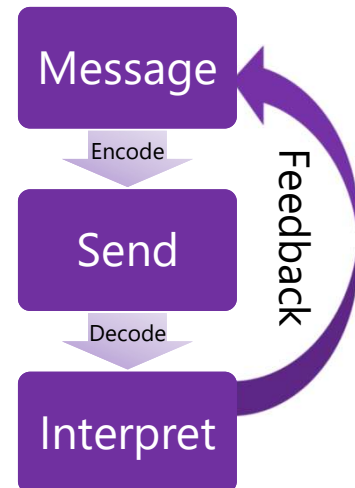


12

## Traits of Successful Communications

It Starts with Communication

- "A person can have the greatest idea in the world, but if that person can't convince enough other people, It doesn't matter." – Gregory Burns
- How We Communicate Effectively
  - Understand the audience
  - Determine the message
  - Develop a strategy
  - Select the most effective method of delivery
  - Measure the effectiveness of the message



 DCME Digital Content and Media Expert

13

## The Evolution of Communication

It Starts with Communication

- Over time the forms of and ideas about communication have evolved through the continuing progression of technology.
- Advances include **Media Psychology**; an emerging field of study.
- Researchers divide the progression of written communication into three revolutionary stages called "**Information Communication Revolutions**".
  - During the **first stage, written communication** emerged through pictographs. They were made on stone; hence written communication was not yet mobile.
  - During the **second stage, writing began to appear on paper**, papyrus, clay, wax, etc. This allowed for not only more information exchange, but the information could now be mobile.
  - The **third stage, our current era, is characterized by the transfer of information through electronic signals** with an understanding of the dynamic nature of content and its impact.



 DCME Digital Content and Media Expert

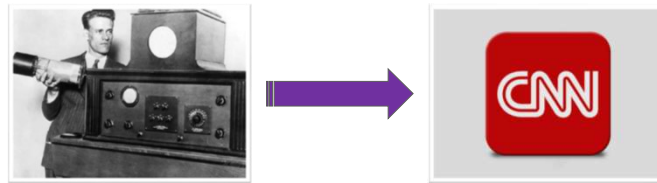
14

## "Modern" Communication

It Starts with Communication

- **Television**

- Electronic television was first successfully demonstrated in San Francisco on Sept. 7, 1927.
- In 1939, RCA televised the opening of the New York World's Fair, including a speech by President Franklin Delano Roosevelt, who was the first president to appear on broadcast television.
- That year RCA also began broadcasting regular programs in New York City.
- In 1980 the Cable News Network (CNN), provided the first live all-news cable channel, and began satellite service in June.



 DCME Digital Content and Media Expert

15

## "Modern" Communications

It Starts with Communication

- **The Internet**

- Credit for the initial concept that developed into the World Wide Web is typically given to Leonard Kleinrock. In 1961, he wrote about ARPANET, the predecessor of the Internet,
- In 1974 Vinton Cerf and Bob Kahn (the Fathers of the Internet) publish "A Protocol for Packet Network Interconnection," which details the design of TCP.
- The first Internet Service Provider (ISP) is also born in 1974 with the introduction of a commercial version of ARPANET, known as Telenet.

- **The PC**

- The first personal computers, introduced in 1975, came as kits.
- 1981 marked the dawn for personal computing as we know it today with the introduction of the IBM PC.

- **Smartphone**

- People didn't start using the term "smartphone" until 1995, but the first true smartphone made its debut three years earlier in 1992.
- It was called the Simon Personal Communicator, and it was created by IBM more than 15 years before Apple released the iPhone.

 DCME Digital Content and Media Expert

16

## The Importance of Content

Is Content King?



17

## Defining Content

The Importance of Content

- Content is the vehicle through which all communication between a sender and a receiver occurs.
- It is the visual representation and manifestation of the objective of communication.
- "Content" is the word used to describe images, animation, text, graphics, photos, blog posts, tweets, Facebook, YouTube, tickers, data, video... the list is nearly endless.
- For digital signage, content is anything that can be shown on a display.
- Content is directly responsible for leveraging and delivering the message and benefits that digital signage promises.



 DCME Digital Content and Media Expert

18



## Content is Visual

The Importance of Content

- During a keynote speech at Digital Signage Expo a few years back, noted author Paco Underhill said, *"Visual is our new language"*.
- He said, *"Our visual language is evolving faster than our spoken words. We process images faster and it is a single language."*
- When he compared the visual language to the impact that digital signage can have on messaging, he noted, *"The value of digital signage does not decline, but increases over time when the content messaging is refined."*



 DCME Digital Content and Media Expert

19

## The Perspective of Content

The Importance of Content

- There are several things to remember as we go through understanding content and its impact on the customer, the environment, and the subject.
- **Technology changes, people don't.**
  - New technologies alters how we deliver content. However, the customer is still the same.
- **What compels people to look, to act, and to engage is hard-wired into our DNA and will never evolve as quickly as technology.**
  - Technology must be considered very seriously depending on the objective of engagement, rather than suffering the "Bright shiny object" syndrome of putting something in your venue just because it's cool.
- **Viewers are connected. One of the critical misfires in content is the assumption that a single piece of content will work everywhere.**
  - It has been proven that this is not the case. With television, computers, and mobile devices, the viewer has access to your brand, or company, or product, or message, in more ways than ever before, and the viewer uses those channels.

 DCME Digital Content and Media Expert

20

## The Perspective of Content

The Importance of Content

- **Content is subjective.**
  - While the rules around what works best can be defined, the impression it has is as different as each pair of eyes watching it. The goal is to understand how to tap into the positive reactions of everyone who sees it.
- **The whole is greater than the sum of its parts.**
  - Content is not about an individual piece but the unique pieces that make up the entire program, and how a network can **maximize audience impact with any given series of content** in any given situation.
- **While your program may be longer, there's a good chance your audience may only see a small part of it, and the part they do see must be the best you have.**
  - That means that the entire program must be awesome.
- **Content is the reason you do this.**
  - No one is impressed by flat panels, computers, and wires. It has been said that great movies are a combination of great acting, great directing, and great writing.

Technology is the delivery mechanism, but not the reason to do it.

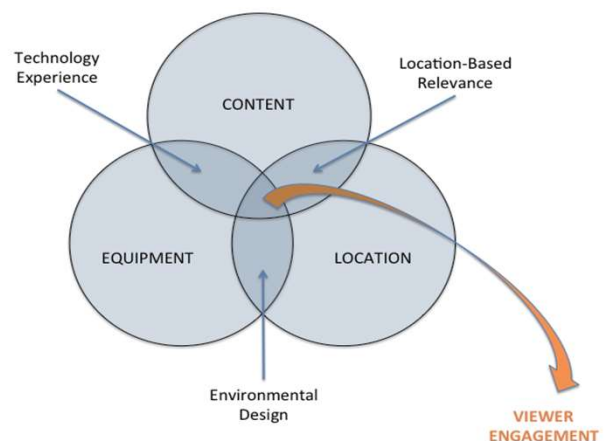
 DCME Digital Content and Media Expert

21

## The Parts We See

The Importance of Content

- Often the argument will pop up whether content is king.
- The argument rests on whatever you bring to digital signage.
- **The fact of the matter is that all parts of digital signage are interdependent.**
- There are three parts to digital signage:
  - **The Venue/Environment**
  - **The Equipment**
  - **The Content**



 DCME Digital Content and Media Expert

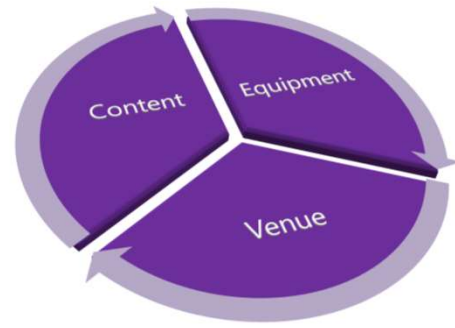
22



## The Parts We See

The Importance of Content

- Content does not work if the technology can not deliver it.
- Technology has no value if the content playing doesn't engage people and drive business.
- And both fail if the screen is in a bad location.
- When executed well, they work together to create compelling consumer engagement. And none work without the success of the other two.
- A venue must be able to house the right gear and meaningful content must be delivered in order to effectively deliver the message to the consumer.



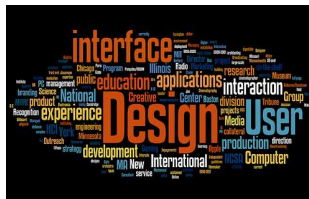
 DCME Digital Content and Media Expert

23

## Content: The Most Important Part

The Importance of Content

- With all that said, **content is the most important single part of the equation**, because it's where the entire success or failure of a deployed network resides.
- Out of the three factors, it's the one that truly engages with the audience, the customer, the viewer or the real end-user.
- When people interact with digital media, they don't consider the technology behind it or the venue, **they only consider what the experience provides for them**.
- The content must be a relevant experience encompassing the venue, the viewer, and the objective of the network itself.

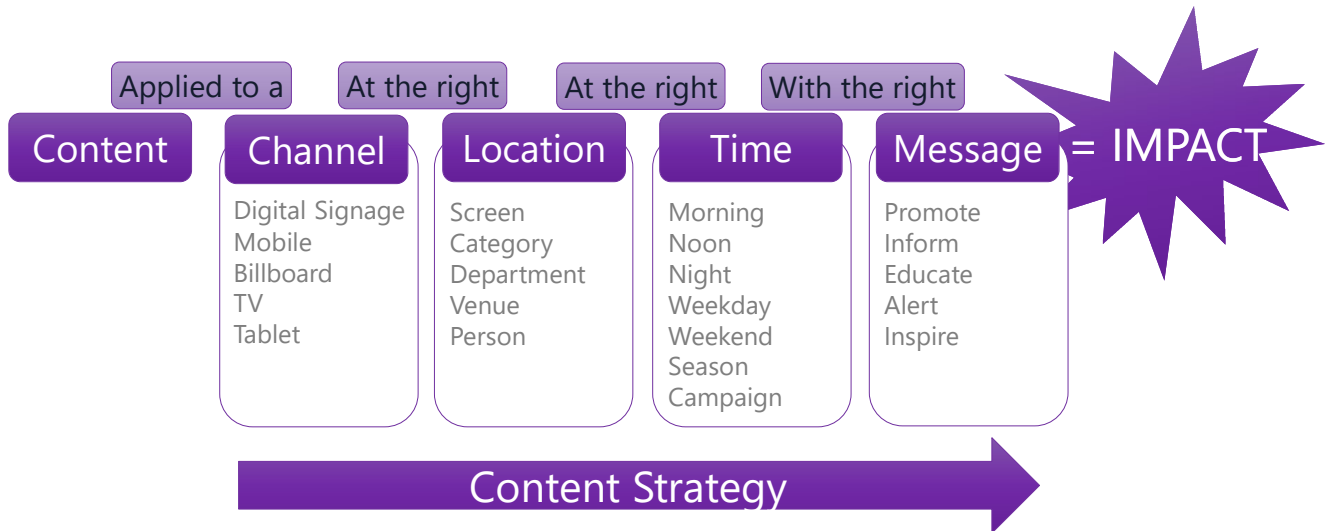


 DCME Digital Content and Media Expert

24

## Content - The Impact Equation

The Importance of Content



 DCME Digital Content and Media Expert

25

## The Need For Relevant Content

The Importance of Content

- As technology advances it allows even the smallest businesses to use screens for their environments, and this expands the need for quality content.
- **Relevant, and compelling content is the most important factor in any application. It is the reason you're adding the screens.**
- Whether you are a brand, product, service, or a company that has information to share, digital media gives you the ability to engage the viewer with your message in ways no other medium can.
- In the past, the novelty of a screen in a store, elevator, or subway was enough. Now we see screens treated as vital elements of design built into the physical environment and it more recently combines with the mobile device the user is holding.

It can be a complete and encompassing experience for the viewer!

 DCME Digital Content and Media Expert

26

## The Need For Relevant Content

The Importance of Content

- It may seem obvious that adding a screen or replacing a static sign with a digital screen automatically creates more awareness for whatever is being communicated, but that's not the case.
- In situations where the shopper is buying a staple such as shampoo, toothpaste, or milk, the shopper is focused on the mission at hand and almost all signage - static and digital - is ignored.
- The potential to miss the audience can be frustrating to a network operator that has spent a lot of time and money to install a screen.
- The goal of digital signage is to change behaviors by helping the consumer to navigate through an environment, learn more about a product, or catch up on the latest news.
- Technology alone does not enable better communication of a compelling and engaging message.
- Venues are constantly looking for ways to beat the competitor.

Compelling, relevant content can and does give a venue an advantage!

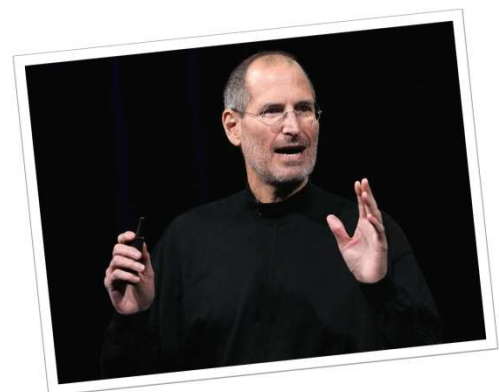
 DCME Digital Content and Media Expert

27

## Relevance

The Importance of Content

- Key techniques... the Steve Jobs Approach
  - Set a clear, consistent theme with a single headline
  - Provide reason to listen
  - Provide a clear outline
  - Use smooth, distinct transitions
  - Be enthusiastic, not stiff or formal
  - Sell the experience, not a product
  - Numbers mean nothing without context
  - Make the message visual, with little text
  - Build suspense, and work up to a memorable moment
  - Always add one more thing...



 DCME Digital Content and Media Expert

28

## Content is not Neutral

The Importance of Content

- Content is not neutral. It can be positive or negative.
- It is intended to be positive in brand building by improving the perception and alignment, and positively affecting viewers, customers, revenues and margins.
- If not positive, then content can be negative. Viewers can develop a negative response to content that may have previously produced a positive impact.



 DCME Digital Content and Media Expert

29

## Content is not Neutral

The Importance of Content

- Uninspiring, repetitive, or ineffectual content can drain resources that could have been applied to positive image building.
- There is a necessity to keep content relevant, useful, interesting, compelling and inspiring.
- In not doing so, everyone involved with the digital signage, including network owners, location providers, advertisers and non-paying content providers run the risk of alienating, disappointing and producing a negative viewer impact.
- This de-branding can be directed toward individual products or services, the location provider or the digital signage system at large.

 DCME Digital Content and Media Expert

30

## Content is not Neutral

The Importance of Content

- Even in a captive audience environment content must **earn** viewer acceptance.
- Failure to gain acceptance results in the content being disregarded or worse, generating a negative impact for the advertiser, location provider or the network itself.
- For this reason, network owners and suppliers are increasingly realizing that **inadequate content is a make-or-break proposition**.
- Many networks are dying on the proverbial vine or stalled in deployment due to the inadequacy of content quality, impact, and quantity.
- Technology elements are delivering on the promise of digital signage, but **when content is the weak link in the chain, the network underperforms, stalls in deployment, and the relevance of the entire network and its overall business strategy are cast into doubt.**

 DCME Digital Content and Media Expert

31

## Content is About Impact and Recall

The Importance of Content

Content is about communication, assimilation and retention of information (recall) and a call to action. Success needs to be measured on the response to the call to action. If you have not done this, your content has no significant impact!



 DCME Digital Content and Media Expert

32

## The Importance of a Business Strategy



33

## The Importance of Strategy

The Importance of a Business Strategy

34

- A strategy is understanding the SWOT components of putting forth a network to viewers.
- This is where you need to understand how your network could succeed or fail.
- A strategy is built on the objectives – what do you want to accomplish? When you begin with the end in mind, the type of engagement will be outlined in the objectives.
- **Content is what satisfies those objectives, and you can consider what the viewer will want to see to produce the desired result.**
- Once effective content is determined, you can find software that will meet the demands of the content style, whether it's interactive or one-way messaging.
- From this, you'll be able to find hardware that meets the demands of the software, including characteristics taking advantage of the content.



 DCME Digital Content and Media Expert

34

## Did I Mention The Objective is #1?

The Importance of a Business Strategy

- The entire concept of digital signage revolves around delivering a message more effectively than a traditional static sign.
- Understanding the objectives of the signage system is critical, before you can begin the design, and select your software and hardware.
- It is imperative to understand what you want the digital signage system to accomplish, and how it will be evaluated.
- You need to know not only the kind of content that is going to be displayed, but more importantly, **the intent of each segment of that content.**
- What is this signage system going to be used for? This question unlocks the direction for software and helps lead to what size and type of display you will be looking at.

If you do not know and articulate the true objective of the system, you cannot design an effective one.

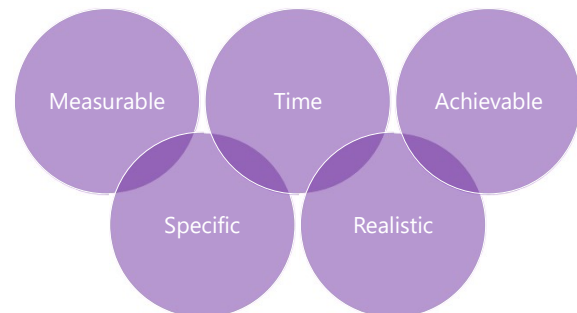


35

## Examples of Objectives

The Importance of a Business Strategy

- Identify and articulate the **SPECIFIC OBJECTIVES** of the project.
  - Brand building
  - Customer experience/entertainment
  - Ad revenue generation
  - Information and/or way finding
  - Status
  - Increasing efficiency
  - Time saving/productivity
  - Others - TBD



36

## Who's the Judge?

The Importance of a Business Strategy

- Understand **how** the system will be evaluated and by **whom**.
  - CEO?
  - CFO?
  - COO?
  - CMO?
  - Others or group?
- On what basis will it be evaluated?
- How much time do you have?
- What if it is not meeting expectations?
- What if it is exceeding expectations?



 DCME Digital Content and Media Expert

37

## Content as the Vehicle

The Importance of a Business Strategy

- **Content is the "vehicle" that carries the objectives to fruition.**
- What we have learned through trial and error over the last few years is that one size does not fit all in terms of content.
- Simple, straightforward copy and a strong call-to-action can make the difference between a content spot that progresses from inaction to action and one that doesn't.



 DCME Digital Content and Media Expert

38



## ROI Defined

The Importance of a Business Strategy

- What exactly is ROI? It's one of the most talked about words in digital signage, but few truly understand what it is, and its implications.
- ROI, or Return on Investment, is defined as a percentage, used as a measure of performance. It reflects the amount of money that is earned by the investment of capital in a proposal or project.
- In common language, ROI means the value of a project defined by the amount of benefits gained, minus the amount of cost invested.
- Financial people look at ROI in terms of the percentage return vs. the cost of money.

$$\text{ROI} = \frac{\text{Profit from Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

 DCME Digital Content and Media Expert

## ROO Defined

The Importance of a Business Strategy

- For years, sales departments have measured return on investment by tallying dollars received against dollars spent.
- The influence of marketing, however, doesn't necessarily translate dollar-for-dollar into a company's revenue.
- Instead of calculating success based on revenues, marketers typically measure returns based on whether their objectives, from brand awareness to customer relationship-building, are met.
- Completion of these objectives, rather than dollars earned, can ultimately determines the success of a given project.
- This result is known as Return on Objectives, or ROO



 DCME Digital Content and Media Expert

## Tangible VS. Intangible Benefits

The Importance of a Business Strategy

- Examining ROI as a number is quite simple if the investment involved relates directly to a point of sale.
- A point of sale can directly collect payments, and that data can be used to calculate the ROI for building that point of sale.
- Digital signage is different, since there typically no direct acceptance of payment.
- **The benefits of digital signage are typically intangible.**
- Digital signs do not directly sell products, but communicate valuable information and advertising, that when displayed correctly, can **influence** a customer to purchase products or services.
- This begs the question of how to measure the benefits offered?
- This is not necessarily difficult. Digital signage generally follows one of three goals in its purpose:
  - **Advertising products or services**
  - **Communicate information**
  - **Inform or entertain viewers to improve satisfaction**



 DCME Digital Content and Media Expert

41

## Tangible VS. Intangible Benefits

The Importance of a Business Strategy

- The key to measuring ROI is focusing on the identifiable and quantifiable elements, which will vary with the application.
- As an example, if your signage is intended for a specific brand you should focus on the sales of that brand. The increase can be used to support positive ROI.
- **In test market deployments you compare stores that do not employ digital signage with those that do.**
- Industry researchers make a science out of tracking these test deployments and producing data to support positive ROI.
- The situation is similar when the signage is meant to produce a call to action. For instance, when the sign prompts a customer to participate in a survey or join a customer appreciation program.
- In that case, **the measureable return would be based on the number of viewers who follow through with the call to action.**



 DCME Digital Content and Media Expert

42

## Tangible VS. Intangible Benefits

The Importance of a Business Strategy

- The final use of digital signage, to inform or entertain, is to improve satisfaction and the experience. This is more difficult to measure.
- An example might be a doctor's office waiting room, with digital signage installed, facilitating a more pleasant patient experience while waiting to be seen. The patient's perceived wait time will be reduced.
- This may sound unimportant, but improved experiences and reduced perceived wait time can influence repeat business.
- This poses the question; how do you measure the ROI in this instance?
- **Customer experiences are intangible, but they can still be measured, with customer surveys, focus groups, phone calls, etc.**
- Repeat business is perhaps the best measurement that can be tracked.
- This gives us a quantifiable measurement, even though we are not basing it directly on dollars in a cash register.



 DCME Digital Content and Media Expert

43

## Measuring Return

The Importance of a Business Strategy

- What are the proven results of digital signage installations?
- The contribution of digital signage is to strongly influence the way that a consumer experiences and is stimulated by the identity of the product, service or information being displayed, and the environment in which it is being presented.
- While actual results vary by situation, the following are performance benchmarks representing measures of impact that have been achieved.
  - **30% to 1500% Sales lift on product/service!**
  - 3-5% Increase in shopping basket
  - 70+% Unaided recall
  - 68% Call to Action or Purchase Intent
  - 80% Improved Experience
  - 50% Reduce Perceived Wait Times



 DCME Digital Content and Media Expert

44

## Mastering Revenue

The Importance of a Business Strategy

- There is a tight relationship between cost and revenue, in a project.
- **It will always cost money, to make money. Wherever income is found, cost will be near at hand.**
- The key to this relationship is understanding ways to maximize revenue while minimizing cost.
- Digital signage has a unique model of cost and revenue assessments.
- In addition to the income, digital signage networks can boost revenue by selling advertising.
- There are other, less tangible revenues. A digital sign can improve overall branding by displaying logos, slogans, and ads until they are imprinted deeply in the customer's minds.
- Digital signs can ensure the customers are aware of all the sales and promotions that are coming in the near term.
- Digital signs can even save the company money in wages and time from employees, by accomplishing tasks previously done directly by the employees.



45

## Mastering Revenue

The Importance of a Business Strategy

- Unfortunately, **the costs of digital signage are just as unique, and as real, as the revenues.**
- The most obvious is the startup cost. The initial investment in hardware carries many questions; How many and what kind of displays will be used? What will they cost to install? What is the infrastructure? Etc.
- Software poses its own set of questions. Do you buy it shrink wrapped (on prem)? Bundled with the displays? Subscribe as a service? Have it custom designed? What features does the software need to have? What kind of content files will it use?
- Regarding content, a whole host of issues that are often neglected, come to mind: Most importantly, what content will the signs use, and where will it come from?
- Obtaining content can incur its own expenses. If video is to be used, where will it come from? Who will produce and shoot it? Is a graphic designer needed? Do we need to hire people to handle these tasks?
- **All of these issues must be decided before any digital sign can be seen by a customer.**



46

## Mastering Revenue

The Importance of a Business Strategy

- Stand by, we're still not done!
- Even after the system is installed, up, and running, there are continuing costs that will remain attached as long as the signs operate.
- Content will need to be updated. Hardware and software will need to be maintained. Network and bandwidth costs will be incurred. Administrative personnel will have wages to be paid.
- These issues show why it is critical to understand the financial concerns before any digital signage project ever leaves the drawing board.
- The potential owners must establish the minimum revenue they hope to receive from the system, and what is the maximum cost they are willing to pay.



47

Return on Content



48

## Great Content Makes Money

Return on Content

- Revenue goes beyond just selling time on the network to an advertiser.
- In the case of retailing, relevant and compelling content will encourage a viewer to purchase a product or service. Services tend to have higher margins than off-the-shelf products.
- The revenue generated from higher sales in turn becomes a budget that retailers can spend on better digital signage applications.
- **Technology does not make money for a network, and if the advertising does not sell the product, the network does not generate value.**
- Great content can also make money by increasing efficiency, reducing costs, increasing brand equity, increasing customer loyalty, or improving morale.



 **DCME** Digital Content and Media Expert

49

## What Can Good Content Actually Do?

Return on Content

- All of this is easier said than done.
- **The research and strategy that goes into creating engaging content can be extreme and often nebulous.**
- Viewer demographics, environmental attributes, and advertising / informational requirements all factor heavily into the composition and execution of great content.
- However, the work that goes into understanding the variables of compelling content can pay dividends in the end.
- **Simply put: The better your content, the better your network.**



 **DCME** Digital Content and Media Expert

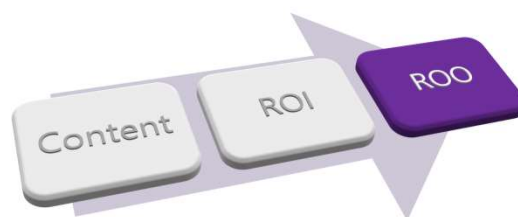
50



## The Return on Content

Return on Content

- The performance of digital signage is measured through a myriad of variables depending on the business model, the network, and the viewer.
- However, there is a hierarchy that can be applied to understand why content is so important.
- **Your digital signage business model is driven by objectives.** They can be greater sales lift, greater brand awareness, better navigation inside the venue, basically any measure which helps drive the growth of the business.
- This is ultimately what drives the entire strategy behind the deployment. So, we start the hierarchy with your objectives.
- **Ideally, the right strategy sees a Return on Objectives, or ROO.**



 DCME Digital Content and Media Expert

51

## The Return on Content

Return on Content

- How you get there is through investing in the right network.
- This means spending money on hardware, software, and ultimately content.
- As previously noted, **while hardware and software are important, they are essentially cost centers. They don't make money for you. Content does make money.**
- It is what people see, or engage with, or use as a steppingstone toward that objective for you and your business.
- Over the course of time, **a network will spend much more on content than any other part of the network** because it's where there is a return on the investment, or ROI.



 DCME Digital Content and Media Expert

52

## The Return on Content

Return on Content

- Simply buying a display doesn't give you a return on anything, and it doesn't meet any objectives for you.
- Hardware is simply a means to an end based on what you want to accomplish.
- Content generates true ROI, which in turn satisfies the objectives set by the business model.
- A return on investment IS the objective.



 DCME Digital Content and Media Expert

53

## Investment in Content

Return on Content

- In any situation where an effort is made to generate better business, there is an investment of time, money, and resources. Digital signage is no different. It is an investment.
- Like other forms of signage, the investment is both physical and human. Installing the infrastructure, developing the content, and managing the network are all critical factors to include in the investment.
- However, where digital signage begins to separate itself is the ability to generate a return that is greater than a return regularly seen with other forms of signage.
- There are two parts to an investment for digital signage; **capital investment and ongoing costs**.
- The **capital investment** involves purchasing the hardware and software, hanging the screens, installing the computers and players, and developing the physical infrastructure needed to support the network.
- The **ongoing costs** are network support and maintenance, content creation and management, and programming management.

 DCME Digital Content and Media Expert

54



## Investment in Content

Return on Content

- Either way, capital or ongoing, both of these areas are pure cost centers. In no way do any of these areas actually generate revenue.
- **Therefore it's up to the content to do the heavy lifting with generating revenue that justifies the cost.**
- In terms of percentages of increase over other forms of signage, this is where digital signage can be a boon. In most cases, once the network is up, the capital costs are removed from the equation.
- Because you can use the screens to send more messages than a single message on a single sign, the value increases, therefore the revenue increases if the message resonates with the viewer to the point where more money is spent in your venue because of the digital signage – an advantage over static signage.
- **The Return on Investment is a direct descendant of objectives. Simply put, if it costs more than it makes, it's not worth doing.**

 DCME Digital Content and Media Expert

55

## Digital Signage Business Models

Return on Content

- Digital signage offers many ways that revenue can be realized, or ROI/ROO delivered.
- There are many ways we can derive profit and benefits from a signage system, not just the revenue generated from advertising that is sold.
- The overall models that can be used as the basis of a digital signage system revolve around the core concepts of where the content will be coming from, and who will be providing funding to create and operate the system.



 DCME Digital Content and Media Expert

56

## Closed System Model

Return on Content

- The first model we will examine is the "closed system" digital signage network.
- Here a venue will fund the creation of the digital signage network, bearing the expense to purchase, install, and operate the system.
- The content will be generated and managed by the owner, that is exclusively beneficial to them.
- This model carries the highest initial expenditure and will front load the cost of the system.
- This offers the maximum control over the content, and if deployed correctly in certain situations, such as a retail establishment, can deliver higher ROI.



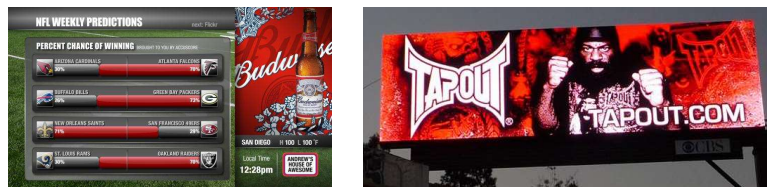
 DCME Digital Content and Media Expert

57

## Ad Based System Model

Return on Content

- The second, and most common business model in digital signage, is the ad-based system model.
- The real estate and initial startup costs are borne by the digital signage network owner.
- The owner then seeks out advertising revenue, to defray the initial expenses, and help reduce operating costs.
- The content displayed will generally not only consist of third-party ads, but targeted ads interspersed with beneficial venue advertising and information.



 DCME Digital Content and Media Expert

58

## Informational System Model

Return on Content

- There is a final model that can be employed in digital signage, that of an informational system.
- This model is not an advertising revenue, but rather providing other types of benefits.
- The ROI on such a system is harder to track but really provides ROO or Return on Objectives.
- A good example of this sort of system would be a corporate digital signage network, deployed throughout a facility, to deliver information about events, company policy, and to welcome and entertain visitors.



 DCME Digital Content and Media Expert

59

## Viewer Engagement

What Do You Want to Do?

 **DCME**  
Digital Content and Media Expert

60

## The Objectives of Viewer Engagement

Viewer Engagement

"The one who has the more engaging content wins, because frequent and regular contact builds a relationship."

-Joe Pulizzi / Newt Barrett, "Get Content, Get Customers"



 DCME Digital Content and Media Expert

61

## Time and Focus

Viewer Engagement

- Today the average human loses focus after eight seconds; a four second drop from the early 2000s. Technology is a driving factor behind this drop.
- Research shows "Heavy multi-screener find it difficult to filter out irrelevant stimuli — they're more easily distracted by multiple streams of media."
- Research also found 77% of people ages 18-24 reach for their phones when nothing else is currently holding their attention.
- A viewer needs time to read and interpret the message on the sign. You get from 1.5 to 3 seconds to grab the viewer's attention and hold it. That gives a viewer enough time to read what the signs says before the eight seconds expires.
- Digital signage location and content must stand out to grab a user's attention and hold it.

 DCME Digital Content and Media Expert

62

## Distraction

### Viewer Engagement

- A big problem in any digital signage layout is distraction. The more elements on the screen, the less chance the one that really needs to be noticed and remembered.
- Motion may gain attention but can potentially interfere with the process, as well, because it takes 2 to 10 times longer for the brain to comprehend something that is moving.
- The critical parts of the message should be static.
- A study found news crawls and tickers directly related to the dominant message on the screen reinforced the overall message. But it found when the information on the news crawl was incompatible with the story, this extraneous content was a hindrance to remembering what was on the screen.

## Attention

### Viewer Engagement

- Microsoft research looked at three forms of attention:
  - Sustained – Focused attention on one thing only
  - Selective – The ability to shift attention as needed when there are distractions
  - Alternating – This refers to multitasking
- The study showed that the use of mobile devices is affecting the human brain's ability to manage sustained attention. Most people use alternating attention when doing anything these days because they are always:
  - Checking in with social media
  - Reading emails
  - Going online

## The Three Factors of Engagement

Viewer Engagement

- First, it's important to realize that most digital signage is designed to "advertise" and that the content wants to tell you something and wants you to do something with and about that message.
- With digital signage, the opportunity to do these things must be condensed because in many cases the audience will not give the content enough time to get through the entire message.
- The essence of content is to engage people and get them to engage in return.
- Engagement is not easy. It's hard to figure out what gets people to act or react.
- The desired outcome is action, whether it's buying a product or service, or commenting, or sharing the content provided.
- So how do you do it? How do you get people to engage? Engagement requires a mix of three core principles that can encourage engagement.
- We can apply the basic principles of AIA or Attract, Inspire, Act.

 DCME Digital Content and Media Expert

65

## The First Factor of Engagement

Viewer Engagement

- ATTRACT
  - The first key is to get the viewer to notice you're even there.
  - The key to developing awareness is to know what gets people's attention.
  - You need to get the viewer's attention by presenting something that will capture their eyeballs.
  - The challenge with gaining attention is that your content will most likely be competing with other environmental features to get and keep your attention over all others.
  - But because of the onslaught of messages and screens, coupled with our desire to "surf" both visually and mentally, once you have attention, you need to move quickly into the next principle.



 DCME Digital Content and Media Expert

66

## The Second Factor of Engagement

Viewer Engagement

- INSPIRE

- The ability to generate a sense of excitement or desire in the viewer's mind regarding the subject of the messaging.
- Now that you have the viewer's attention, you must quickly reward the viewer's effort with the reason why they should care.
- You're not answering who, when, or where, but WHY? Think benefits that resonate with the viewers, not features.
- Once you have the viewer's attention, you must deliver on the promise you have made to the viewer and gratify their expectations.
- Caveat: Too often the content is out of context.
- If inspiration is achieved, it should easily move the viewer into the final phase of engagement.

 DCME Digital Content and Media Expert

67

## The Third Factor of Engaging Content

Viewer Engagement

- ACT

- Now that the viewer has been inspired, the final step is to get them to act on the message. In every successful case, this is called the "Call To Action".
- If it's a product you want to sell, here is where you show the person the next step in acquiring the product.
- If it's on the shelf, you may simply say "Buy it now!"
- If the person must speak with someone, the call to action may be "Speak to a Sales Associate."
- If it's an interactive engagement, it may be a big round button the person can touch with the copy, "Touch here to learn more."



 DCME Digital Content and Media Expert

68



## Multi-Channel Engagement

### Viewer Engagement

- This is where multi-channel engagement becomes valuable.
- For example, provide a website URL, NFC, a QR code on screen, or beacon technology that the person can access through their mobile device, where the person can continue down the path of the experience.
- What happens next is within the control of the content. **The key is to make it easy on the viewer.**
- **The strength of the entire experience is only as good as the weakest part.**
- If you put a QR code on the screen, but it goes to nothing, or goes to a place online where there is no more information or action to take, you will have lost the viewer.



 DCME Digital Content and Media Expert

69

## What Good Content Does

The Effects of Content

 **DCME**  
Digital Content and Media Expert

70



## Turns Engagement into Results

What Good Content Does

- In order to start talking about specific content, we must start at the very beginning, with a conversation about objectives and purpose of the entire digital signage system.
- **This means that you must clearly articulate and understand what you are trying to accomplish**, because based on your own objectives for your digital signage, there are several basic ways digital signage can engage with your viewer and provide a result.
- All content is designed to do something, whether it's to move a viewer along the path to purchase by providing product information, to help a visitor navigate through a building, or to entertain for the purpose of killing time, or to simply enhance the visual aesthetics of a room or environment, all digital signage has a purpose.



 DCME Digital Content and Media Expert

71

## The Positive Effect of Good Content

What Good Content Does

- **Enhancing the Viewer Experience**
  - Digital signage can provide education and entertainment for its viewers, making them better informed, more receptive, and motivated toward a desired action.
  - Most case studies show that viewers enjoy having digital signage, and that giving the viewer a new positive experience can change their entire attitude.
  - Using digital signage can also increase customer loyalty by creating an emotional connection, intensifying your relationship with the viewer.



 DCME Digital Content and Media Expert

72

## The Positive Effect of Good Content

What Good Content Does

- **Tell Your Story**
  - One of the tremendous features of digital signage is the ability to bring your venue to life.
  - Animating logos, creating touch points of engagement with the company, and bringing your company to life through digital signage can have vast appeal because it shows your audience more than just words on a piece of paper.
  - **This is not advertising; this is a chance to tell the story of your business through dynamic messaging.**



 DCME Digital Content and Media Expert

73

## Positive Effect of Good Content

What Good Content Does

- **Tell Your Story**
  - The unique environment inside content gives creators the opportunity to tell more intimate stories with greater impact, focusing on key features of the subject that appeal to the viewer at that particular time and place.
  - **Good content engages a viewer like no other type of communication.**
  - With the growth of interactivity through touchscreens and mobile devices, that engagement can become personal and inspirational.
  - Brands, products, and services can now connect with customers and consumers at all points of interaction, from online at home to touchscreen kiosks in the store, to mobile media that allow users to define a brand or product in their eyes.
- **Changing behaviors and creating impact are tremendous when the customer becomes engaged with the message.**

 DCME Digital Content and Media Expert

74

## The Positive Effect of Good Content

What Good Content Does

- **Educate the Viewer**
  - All good content gets the intended audience to want more, to wonder what happens next.
  - **Regardless of the subject of the content, a degree of education is involved to ensure that the message resonates with the viewer.**
  - It could be introducing a customer to a brand-new pair of sneakers or providing further historical education about a painting hanging in a museum.
  - **Dynamic content has the ability to engage the viewer by arming him or her with more knowledge about the subject than before the viewing experience.**



 **DCME** Digital Content and Media Expert

75

## The Positive Effect of Good Content

What Good Content Does

- **Establish Trust, Credibility, and Authority**
  - When you have the ability to generate awareness and provide more detail that compels a viewer to do more with the message, you begin to generate trust and authority in those given subjects.
  - Like any good programming, viewers will stick to those that best suit their lifestyles.
  - Like a hit TV show, great content resonates with the viewer and compels people to stick around to learn more, do more, and act more.
- **Differentiate**
  - Because digital media is a more dynamic way to communicate, **providers can leverage the creative resources to differentiate their brand, product, or service.**
  - For example, an iPhone app can complement an in-store screen for competitive differentiation.
  - Giving customers the ability to experience that interactivity at the point of sale has tremendous impact on both customers and the brand.

 **DCME** Digital Content and Media Expert

76

## The Positive Effect of Good Content

What Good Content Does

- **Increasing Brand Value**

- Brand value is the result of building brand loyalty. Loyalty is driven by the experience and community surrounding the brand.
- Creating this kind of relationship between the brand and the viewer results in brand equity and customer retention.
- The communication needs to differentiate what it is about the product, and how the product affects the customer's life. Getting your brand positioned in your customer's life helps create brand equity.
- Your messages can be up close and personal. For example, think about how a bank makes a customer's life easier. Is the message, "We have ATMs in 20 locations for your convenience," or is the message, "When you need us, we are there for you, with ATMs in 20 convenient locations"?
- Digital signage is a powerful emotional driver and, when used properly, connects your customer with your company.

 DCME Digital Content and Media Expert

77

Content: Right Time,  
Right Place...

Roadmap to Impact!

 DCME  
Digital Content and Media Expert

78

## The Impact of Content

Content: Right Time, Right Place...

- In every form of content, **the key to success is relevance**, that is, ensuring that the content you put on the screen has impact with the viewer.
- While there are myriad variables that go into successful content, they can be summed up in a simple equation:

**Right place + Right time + Right Audience + Right Content = Relevance**

- That means that impact, the ultimate outcome of relevant content, is the right mix of appropriate content (video/animation, etc.) in the given space (place / environment, venue) at the right time (time of day, when customer is there) to ensure that impact occurs.
- So how do you create relevance?



79

## The Impact Equation - Right Place

Content: Right Time, Right Place...

**Right place + Right time + Right Audience + Right Content = Relevance**

- The right place can be as broad as a gigantic sign at a ballpark showing a video to 50,000 people, down to a screen the size of an iPad designed to display to a single pair of eyes.
- The physical space for content is comprised of several parts:
  1. **The physical space** -
    - In this part, everything about the physical space can have impact on content's ability to engage a viewer, from the lighting to the surrounding structure, to any complementary information (brochures or maps) to the screen itself - is it a touch screen? Or simply a "push" type of messaging? Is the screen at eye level? Is it overhead? All of these have impact on content's ability to engage.
  2. **The viewer's proximity to the space.**
    - Even if you have perfected where the screen should go, it's crucial to understand the viewer's proximity to the screen. Is the viewer walking by? Is the viewer in a long dwell situation, like a waiting room? Can the viewer get close enough to touch the screen? The viewer's proximity to the screen will impact things like copy size, audio, and touch-screen capability, if desired.



80

## The Impact Equation - Right Time

Content: Right Time, Right Place...

Right place + **Right time** + Right Audience + Right Content = Relevance

- While the right time has always been a core factor, the ability to place content at specifically the right time has only been available for the past couple of years.
- The biggest contributing factor to placing content at the right time is the viewer. **Knowing what kind of viewer is in your venue at a given time of day, or week, or month, is crucial to playing content at fits that viewer.**
- The most common place to see this activity is at retail. For example, different times of the days and weeks can yield different consumers. In the early morning, you may see an older crowd, perhaps retirees or moms making their way through the morning. In the afternoon and evening, you may see a younger crowd, kids getting off from school, and young workers stopping by the store on their way home.
- The two biggest contributions to playing content at the right time is understanding the consumer, as noted before, and having software that can play the content on demand as needed. You simply cannot succeed in playing content at the right time unless you have both.

























 DCME Digital Content and Media Expert

81

## The Basics of Dayparting

Content: Right Time, Right Place...

- This is an example of a breakdown of dayparting based on the viewer. As you can see, different times of day provide different demographics of viewer, that will resonate with different types of message.

	MO	TU	WE	TH	FR	SA	SU
10							
11							
12							
1							
2							
3							
4							
5							
6							
7							

 DCME Digital Content and Media Expert

82

## The Impact Equation - Right Audience

Content: Right Time, Right Place...

Right place + Right time + **Right Audience** + Right Content = Relevance

- You need to understand the viewer. There are fundamental aspects that will contribute to the relevance, such as demographics that can give you a general understanding of when certain types of customers may be in the building. Of course, if you sell Rolex watches, chances are good that things like household income and age may be more focused.
- There are two components to understanding the viewer.
- **The first is the viewer.** You need to learn about him or her, the demographics of the viewer, such as age, gender, and household income. These are building blocks that help you understand why they might be coming into your venue to begin with.
- **The second part of understanding the viewer is the viewer's behavior once inside your venue.** How do they move through the space? What do they like to look at? What physical features (both static and stationary, such as product) engage the viewers? How can a screen complement this behavior?
- **The key here is to know the viewer.**



83

## The Impact Equation - Right Content

Content: Right Time, Right Place...

Right place + Right time + Right Audience + **Right Content** = Relevance

- The fourth is really the execution of understanding the previous three. **Great content is built from understanding who will see it, where they will see it, and when it will be seen.** It is the final key in the "Relevance" equation.
- The contributing factors to great content are the viewer, understanding all there is to know, the location and any specifics about the screen in a given venue, the time or times in which it will play, and the subject of the content. Given the multitude of variables that can go into each of these contributing factors, it's easy to see the challenge of creating content is truly spot-on.
- But understanding these four factors: Time, Place, Audience, and Content, will help you build engaging experiences for your viewers.



84



## Longevity of Content

Content: Right Time, Right Place...

- **Evergreen Content**
  - Content that is designed to be used at any time, has no expiration date
    - Branding
    - Experiential
    - Informational
  
- **Shelf-Life Content**
  - Content that expires based on its message
    - Promotional advertising
    - Event-based
    - Campaign Based



 DCME Digital Content and Media Expert

85

## Location of Content

Content: Right Time, Right Place...

- **Endemic Content**
  - Content that is designed to run in a specific environment
    - Promotion of products/services found within the environment
    - Branding
    - Experiential that works with the visual aesthetic
  
- **Non-Endemic Content**
  - Content that provides message that does not relate to the environment on which it resides
    - Promoting events outside the venue
    - Navigational
    - Promoting products/services not available in the venue



 DCME Digital Content and Media Expert

86

## Physical Properties of Content

Categorizing Content Construction



87

## Physical Properties Effecting Content

Physical Properties of Content

- When understanding and designing content, there is a need to understand certain properties of the display that will show the actual content files.
- While the display is one of the last things to focus on in the strategy, there are certain kinds of content and certain types of displays that will and will not work together.

- Aspect ratio
- Resolution
- Size
- Brightness and Contrast
- Interactive
- Mobile



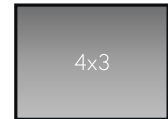
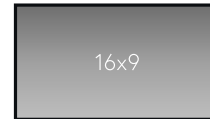
 DCME Digital Content and Media Expert

88

## Aspect Ratio

Physical Properties of Content

- Aspect ratio is the ratio of screen width to screen height that defines the overall "shape" of a display device.
- Today, we commonly deal with 16x9 (also known as 1.78:1) aspect ratio displays.
- The other aspect ratio you may encounter is 4:3 (also known as 1.33:1), the original "square" television aspect ratio. Older networks may still have 4:3 aspect ratio displays in them, being replaced as older displays are upgraded or replaced.
- If the aspect ratio of the intended content does not match, the display may stretch, zoom, or letterbox your content.
- Stretching, as the name implies, expands the content to fill the screen, but will distort it.
- Zooming will fill the screen with content but crop out the portions that expand beyond the screen edge.
- Letterboxing will resize the content to fit the screen and display black or grey bars to fill the rest of the screen.



4:3 image stretched to fill a 16:9 screen



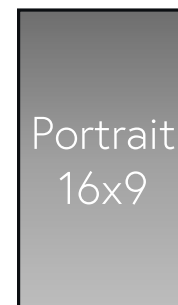
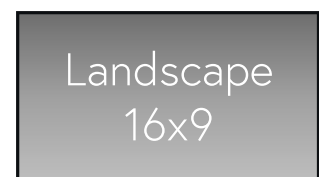
4:3 image on a 16:9 screen

 DCME Digital Content and Media Expert

## Screen Orientation

Physical Properties of Content

- The direction a screen is mounted can have a significant impact on how it is viewed, and the amount of information it can convey.
- The typical installation for a 16x9 display is in landscape mode. This is the typical way we think of "widescreen", with the display being wider than it is tall.
- Certain applications, such as displaying large amounts of text-based information (think restaurant menu, building directory, wayfinding map) will work better if the display is rotated into portrait mode.
- **Portrait mode (typically by rotating the display 90 degrees clockwise) allows the display to be taller than it is wide. This also changes the aspect ratio, from 16x9 to 9x16.**
- Each orientation requires its own particular content design methodology to fit the content in and maintain usability.
- Content created for one orientation will not typically work for the other.

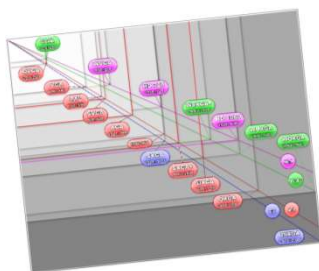


 DCME Digital Content and Media Expert

## Resolution

Physical Properties of Content

- Resolution is the measure of how many pixels are present in a display device, given as the number horizontally times the number vertically.
- The most common resolution of display device we encounter in digital signage today is 1920x1080, often called 1080P. This is the standard for HDTV consumer video and has been adopted by commercial monitors.
- It is important to keep the resolution of the display device in mind when designing content to maintain visual quality.



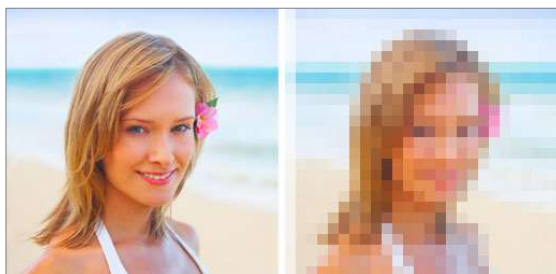
 DCME Digital Content and Media Expert

91

## Resolution

Physical Properties of Content

- If the resolution of the content file is lower than the display device, the display will scale the content, that is mathematically "stretch" it to fit the higher number of pixels. This will make the image look "grainy" or pixelated, and if severe enough, will definitely not look good.
- Many displays have been considered "faulty" because the content was too low resolution and did not look good on its own!



 DCME Digital Content and Media Expert

92

## Size

### Physical Properties of Content

- From a display perspective, there is a relationship between the size of the display device and the viewing distance.
- If the display is too small, and the viewing distance too great, then not only is detail lost, but the ability to impact the viewer experience is greatly reduced.
- If the display is too large, the image can be overwhelming, and difficult to process as a whole.
- Over the years, the audiovisual industry has discovered a rule of thumb that exists until this very day in terms of screen size to viewing distance:
- The maximum viewing distance should be 8x display height for passive viewing, 6x display height for basic decision making, and 4x display height for critical decision making.
- The 4,6,8 rule relates to human factors, where the viewer is in front of the display, and at the closest point can see the full screen without turning their head from side to side. At the furthest distance, the viewer can still discern detail, and the impact of the image on screen without having to strain.



93

## Size

### Physical Properties of Content

- Content must be produced with the display size and viewing distance in mind, making sure that the information will be legible from the desired viewing distance, but small enough to make sure that the closest viewer will be able to see the message as it is intended.
- This may involve size of graphic elements, size of fonts, type of fonts selected, and the color scheme chosen.



94

## Brightness and Contrast

### Physical Properties of Content

- When designing content for the display, you also need to consider the brightness of the environment and how the display will be able to produce contrast versus the ambient light.
- As ambient light increases, detail on the screen decreases in the form of a reduction in contrast. To the casual observer, the image simply looks washed out, when in fact this is a loss in detail.
- This may mean using a higher brightness display, but it also means that content must be designed with the potential for lost detail in mind.
- **Content should be developed with bolder colors, and broader graphical elements that will not be negatively affected by the loss in contrast.**
- This also means that in the design of content that darker tones against lighter tones (and vice versa) need to be exaggerated, than when we can control ambient light, like in a movie theater.



 DCME Digital Content and Media Expert

95

## Types of Content Files

### Physical Properties of Content

- When creating content, one of the final physical aspects to consider is going to be the type of content file you will be using.
- Different software packages will accept differing actual file extensions and evaluating each of them here would take an entire day unto itself. However, we can break the literally hundreds of different file types you may encounter down into the following categories:

- Still Images
- Animation
- Video
- Interactive
- Documents
- Live Feeds



 DCME Digital Content and Media Expert

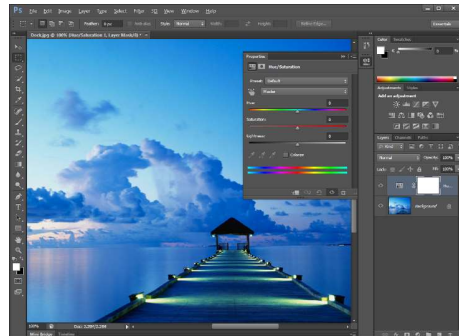
96



## Still Images

Physical Properties of Content

- Still images are static, non-moving full or partial screen graphics, that contain a desired message or graphical element.
- Still images are frequently the easiest content to produce and can be created using a wide range of different software.
- **Software and Tools:**
  - Graphic creation suite such as Adobe Illustrator or Adobe XD
  - Photo editing software such as Adobe Photoshop
  - Cameras may be used for taking photos specific to the content desired
  - PC or Mac laptop that can run the software may be used but usually with a large, high-res desktop monitor
  - A graphics tablet may be desired to make drawing easier



 DCME Digital Content and Media Expert

## Animation

Physical Properties of Content

- Animation drawn or computer-generated images that move according to a script and timeline, in order to communicate the desired message.
- Animations can be complex, with many graphic elements and themes.
- Animation, while different than video, usually ends up produced in the same type of file format.
- **Software and Tools:**
  - 3D graphics and animation such as Autodesk 3DS Max or Maya
  - Animation suite such Adobe Animate
  - Video editing such as Adobe Premiere Pro or After Effects
  - PC or Mac capable of running the software.
    - Rendering of 3D or animation requires much more horsepower than a typical laptop
  - A graphics tablet may be desired to make drawing easier



 DCME Digital Content and Media Expert



## Video

### Physical Properties of Content

- Video is recorded footage produced and edited for messaging.
- Video is edited in postproduction to set up a timeline, remove undesired footage, add titles, special effects, and graphical elements.
- There are many different types of video files, depending on codec used.
- Always verify the file support of the specific signage software being used.
- **Software and Tools:**
  - Camera for capturing video
    - Added lighting, mics, and other production equipment may be necessary depending on the complexity of production output
  - Video editing software such as Adobe Premiere Pro
  - Experience with non-linear editing (NLE) techniques
  - PC or Mac capable of running the software
    - Video editing requires more horsepower than a typical laptop. It also requires large amount of drive and storage space for raw files.
  - A graphics tablet may be desired to make drawing easier



 DCME Digital Content and Media Expert

## Documents

### Physical Properties of Content

- Utilizing document type files, such as a Word document, Excel spreadsheet, or most especially a PowerPoint presentation, may be part of a digital signage content design.
- Often these files may already exist and may only require minor tweaking.
- PowerPoint can also be a tool for a layperson to create basic content.
- Information from these documents may also be taken for use in other types of file.
- **Software and Tools:**
  - Document editing software such as Microsoft Office
  - Additional content assets as required



 DCME Digital Content and Media Expert

## Live Feeds

Physical Properties of Content

- Live feed type content is another broad range of file types, encompassing any information that is provided dynamically in real time.
- This can include weather data, stock information, sports scores, news and events, or live messaging.
- This type of information can also incorporate social media in real time, like Twitter or Facebook feeds.
- This can take several different types of format, from specialized handlers inside the digital signage software, to web-based content and RSS feeds.
- This will require connectivity from the player device to the Internet in most cases, to allow for feeding of the live data, as well as frequent updating.
- Content feeds are available from services like ScreenFeed and DigiChief.



 DCME Digital Content and Media Expert

101

## Principles of Content Design

Putting it all Together

 **DCME**  
Digital Content and Media Expert

102

## Principles of Content Design

Principles of Content Design

- What do you need to make content?
  - A **subject** of the message you are sending
  - A **reason** why you're sending the message
  - A **clear idea of the intended viewer**



 DCME Digital Content and Media Expert

103

## Basic Principles of Content Design

Principles of Content Design

- The length of a single piece of content should fit within the understood dwell time of the audience.
- Many studies have shown that the key is to provide the entire message to the viewer without the viewer feeling the need to work to get more of the message.
- This means that we need content that fits within the dwell time of the viewer.
- Consider stationary and moving traffic. If a viewer is stationary in front of a screen for an average of 10 seconds, then the content message should take no longer than eight or nine seconds to complete.
- If the viewer is walking past the screen, the message should take no longer than the amount of time it takes for the average person to walk past the screen.
- The average person takes about five to seven seconds in which he or she can clearly read a sign while walking by it.

 DCME Digital Content and Media Expert

104

## Basic Principles of Content Design

Principles of Content Design

- The content should provide all the information required to move the viewer on to the next phase of engagement.
- This is where creative minds tend to get handcuffed, but it's critical that whatever time allotment you have is best spent on getting the message out there.
- If you have 10 seconds to provide a message, make sure you get the entire message out in 10 seconds. If you take 20 seconds, you have not given the audience the full message.
- Equally important is to ensure that the time you have is used making sure the message is clearly sent.
- While creativity and style are important, they have no value if the message is not clear, deliverable, and received by the viewer during the time that they are looking at the display.
- Please remember that digital signage is not a destination where people are going to specifically to look at our screens.
- The process usually encompasses a person being in an environment and encountering the screens and our messages as they go about other business.



105

## Basic Principles of Content Design

Principles of Content Design

- The refresh rate of content should coincide with the visit frequency of your audience.
- One of the big death knells of digital signage is stale or old content, leading to the term "feed the beast."
- The need to refresh depends only on two things: You, and your viewer. In your case, you may need to change out content based on your business – such as retail or seasonal.
- New campaigns, or a change in the weather, will compel you to provide fresh content. But then you must consider the audience, specifically the frequency in which a viewer returns to the screen.
- For example, a zoo may have season ticket holders who arrive once per month. If so, the minimum amount of time a refresh may be required is once per month to ensure that those who visit most frequently are not bored by the same thing.
- When you get into situations with higher active turnover, such as retail or grocery, the refresh rate can be as high as daily for a lot of the content because of campaigns, specials, products, and pricing that are affected daily.



106

## Font Basics

Principles of Content Design

- Don't use different font types.
- Use a single font for everything on the page.
- While the appeal for style may be to create different and stylized looks with different fonts, the eyes have to work too hard to get the message.
- Consider these two lines: Ask an Associate to Learn More.
- It's easy to see that a unified font is easier to read.

*Ask an Associate to* **Learn** *More*

### Ask an Associate to Learn More

DON'T USE ALL CAPITAL LETTERS.

Use lowercase letters as well.

 DCME Digital Content and Media Expert

107

## Font Basics

Principles of Content Design

- Pick a font that fits the message.
- This actually gives you the chance to be creative without disrupting the intent of sending the message.
- Simply put, don't put anything on a screen that cannot be read clearly.
- Fonts that are cursive or have thin structure to them are generally not acceptable because they are either too hard to read or don't look good on a screen.

THE QUICK BROWN  
FOX JUMPED OVER  
THE LAZY DOG. the  
quick brown fox jumped over  
the lazy dog. 0123456789

 DCME Digital Content and Media Expert

108

## Font Basics

Principles of Content Design

- **Read it!!**
- While the admonition to "read it" sounds obvious, in fact it is not. When people create digital signage content, and most especially the fonts on the page, they tend to invest themselves emotionally into the look and feel of the font style.
- **You must remove yourself as part of the creative team and put yourself in the place of the viewer.** You must ask yourself, can I read what is on the screen without any effort whatsoever?
- **Once you have picked the font, create a version of the content and watch it, and read the copy.**
- The best bet is to ask a group of disinterested colleague to read it and ask if they understand the message. **Be prepared to have them tell you the truth, and sometimes that is not what you want to hear.**



 DCME Digital Content and Media Expert

109

## Color Basics

Principles of Content Design

- A lot of research has gone into understanding how color affects people, especially their emotions and reactions.
- **The three biggest factors in choosing the right colors for a message are:**
- **Environment** – Color needs to fit the environment.
- **Message** – The message needs to be clearly read without extra effort.
- **Brand** - Colors need to fit the brand or the corporate identity.
- In any given environment, you will find a color scheme that can fit both your environment and your reader.



 DCME Digital Content and Media Expert

110



## Color Basics

Principles of Content Design

- **Value Contrast**
- Pick two contrasting colors as a two-color mix for a message.
- The basic approach is light versus dark, such as white or yellow on black, or black or blue on white.
- **Value refers to the lightness and darkness of a color.**
- For example, if light falls on a green ball the part of the ball nearest the light will be lightest in value because it reflects the most light.
- The part of the ball opposite the light will be the deepest in the shadow and thus darkest in value.
- **Remember - you can also change the value of a color by adding black (shade), or white (tint), or gray (tone). As white is added to a color it becomes "higher" in value (lighter). As black is added it becomes "lower" in value (darker).**
- Use values that are close together to give the design a calm appearance. Use values of pure hues as well as those of tints and shades to create movement.
- Use value contrasts to show texture and as an effective means of directing viewer attention in a composition.

**Value Contrast**  
**Value Contrast**  
**Value Contrast**

**Value Contrast**  
**Value Contrast**  
**Value Contrast**



 DCME Digital Content and Media Expert

111

## Color Basics

Principles of Content Design

- **Avoid Analogous Colors**, that is, colors that are next to each other on the color wheel, like green, blue and violet, or red, orange, and yellow.
- You can see that words can get lost in the design.
- If you're in an environment where there is severe degree of lighting, either too much or not enough, it can pose a tremendous challenge to the reader to read all the words.

**Avoid Analogous Color**

**Avoid Analogous Color**

 DCME Digital Content and Media Expert

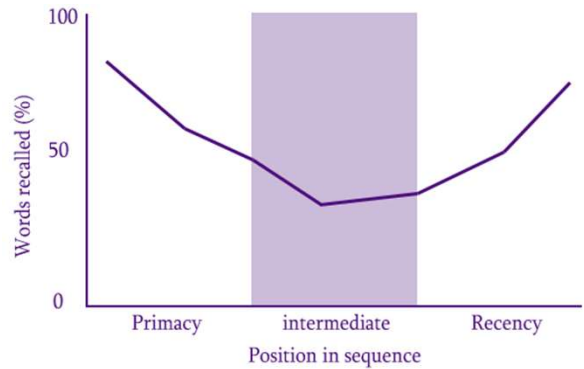
112



## Position in Content

Principles of Content Design

- The Serial Position Effect and the Primacy Effect
- The Serial Position Effect postulates that in a list of items, the items at the end of the list are better remembered compared to items at the beginning or middle of a list.
- The Primacy Effect explains that in a given list of any size, the items at the front of the list are best remembered.
- Collectively, this means that if you are required to show a list of items on a screen, the items at the beginning and end of the list are better recalled than the items in the middle of the list.



 DCME Digital Content and Media Expert

113

## Text Size Rule of Thumb

Principles of Content Design

- If your content is information, chances are good that you'll have copy on the screen.
- If so, there are acceptable sizes of fonts that work best on signage.
- This chart lists the general text sizes in relation to the viewing distance:

5 ft.	10 ft.	20 ft.	50 ft.	100 ft.	200 ft.
½"	¾"	1"	2"	3"-4"	6"-8"

- If you would like to precisely calculate the character height for a given viewing distance, divide the viewing distance by 150, to get the minimum character height for comfortable viewing.

 DCME Digital Content and Media Expert

114

## Keep it Simple

Principles of Content Design

- Back in 2000, a group of influential advertising folks selected the best slogans, taglines, and headlines of the 20th century to form the Advertising Slogan Hall of Fame. The authors of "A List Apart" dissected these 115 items to find out what makes great copy. They were able to summarize it with six simple rules, which also apply quite well to digital signage copywriting tasks:
  - Be five words in length
  - Be declarative
  - Be grammatically complete
  - Be otherwise standard
  - Contain alliteration, metaphor, or rhyme
- Research shows that short, simple phrases are both quicker to read and easier to remember.

*keep it simple*

 DCME Digital Content and Media Expert

115

## Keep It Simple

Principles of Content Design

- When creating content, you must understand that digital signage as a message conveyance lives in the "glance media" culture in our heads.
- Like all signage, we rarely stop and read, instead we prefer pictures and easy words to get the message.
- If you can't say it in five words or less, no one will buy it.
- **Call to action**
  - Should always be on the screen
  - Actions that can be taken immediately work best
  - Give the customer a "to do" – see a sales associate, buy it now, get 10% off NOW
  - Use easy words: Get, do, go, see, ask...
  - Use commands and make them simple: Go now, get 10% off today, see a sales associate



 DCME Digital Content and Media Expert

116

## Motion

Principles of Content Design

- A lot of research has gone into the effects of motion on awareness and attention.
- When considering content construction, the appeal of dynamic messaging is to make everything dynamic.
- The problem, however, is that when everything is moving, nothing gets attention.
- Thinking along these lines, motion should be considered in two ways:
  - To get the viewer to notice your display above everything else.
  - To ensure the message is received by the viewer.



 DCME Digital Content and Media Expert

117

## Motion

Principles of Content Design

- Research has shown that motion itself does not necessarily generate attraction so much as the onset of motion.
- While we all hope our audience is full of English majors, the fact is that in many cases, people seeing your sign may not have any capability to read.
- Use motion to focus on areas that require attention and to explain the story.
- Motion can help tell a story much better especially when your audience may run the gamut of understanding the words and language.
- Once the animation brings in the text, don't move anything on the screen while the viewer has the chance to read the message.
- The appeal for dynamic signage rests here – in the ability to tell stories and send messages with effective visuals.

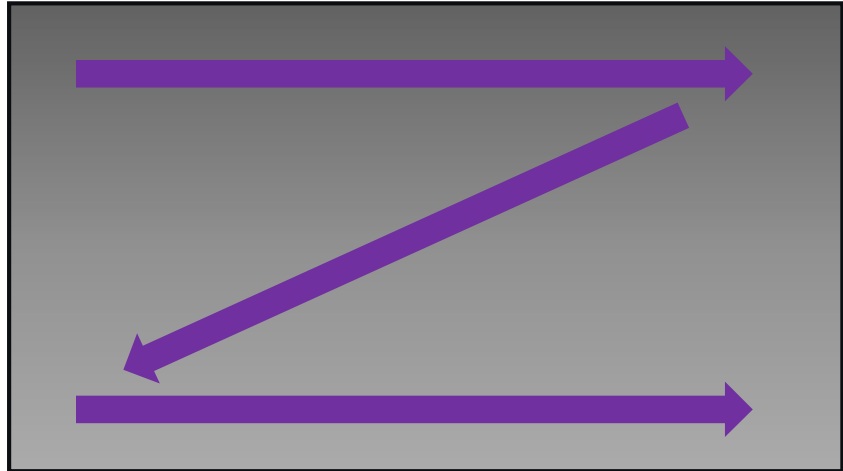
 DCME Digital Content and Media Expert

118

## Left Right Top Bottom

Principles of Content Design

- When considering using zones, it's important to understand how people look at screens and digest information.
- In North America, people read left to right, top to bottom.
- When you need to show information in multiple zones, follow that direction to allow for easy reading and natural flow.



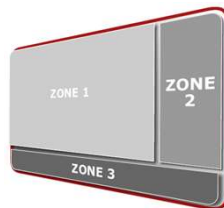
 DCME Digital Content and Media Expert

119

## To Zone or Not to Zone?

Principles of Content Design

- As noted with motion and awareness, your objectives, coupled with research on the environment and the audience, will dictate whether or not a zoned approach is ideal.
- From a motion standpoint, zones are very hard to watch because of all the movement on the screen.
- As things pop on the screen and move, the eyes will fight to decide what is most important.
- So, if you're in a situation where you need to ensure your audience truly ingests content in a singular sense, meaning you don't want distractions, then a full-screen approach is best.



 DCME Digital Content and Media Expert

120

## To Zone or Not to Zone?

Principles of Content Design

- **If you do use zones, consider these guidelines:**
- Use only as many zones as you absolutely need.
- Keep the zone content consistent – if one zone is a ticker, keep it a ticker, ongoing. If one is video, keep it video. Don't change types of content within zones
- **Don't use contrasting or conflicting movement in a group of zones.** If you have zones with a lot of start and stop motion (pictures flying in, or images start moving), try not to have the same behavior in other zones. This will force the eyes to redirect every time something on-screen occurs, and will fatigue the viewer to a point where he or she will simply stop looking.
- **Don't use the same content in different zones.** This is part of muscle memory.
- If viewers become accustomed to seeing content in one zone, like weather in the upper right, keep the content in the same place. For those viewers that will look to your screen for specific purposes, they will get the information they need.



121

## Standards of Practice

Principles of Content Design

- Every single venue is different, and therefore the rules about acceptable content vary. Things like day-parting and user generated video can have impact on when certain types of content can be shown.
- Standards of practice reflect that content presented on digital signage should not:
  - Infringe on legal rights (including copyrights, rights of privacy and publicity)
  - Cause any damage or disadvantage to others
  - Disturb public order
  - Reflect a criminal act
  - Present or distribute any third parties' private information without obtaining approval from such third parties
  - Disgrace defame, or libel others
  - Downloads that contain viruses, corrupted files that may damage the operation of others' computers
  - Present unlawful or prohibited information
  - Reflect any other activities that the location provider of the digital display deems inappropriate



122

## The Rules for Audio

Principles of Content Design

- Like video, audio can have a stimulating effect on people.
- While video screens are unidirectional, audio can be heard all around the screen.
- There are five classifications of sound: The Human Voice, Music, Natural Sound, Noise, and Silence.
- Audio can have tremendous impact on a human in four ways:
  - **Physiological** - affect heart rate, breathing, brain waves, hormones
  - **Psychological** - induce states of consciousness, from paranoia to relaxation; can conjure memories and nostalgia
  - **Cognitive** - can reduce or impair cognitive function by adding distraction
  - **Behavioral** - can impact how quickly a shopper moves, what direction they take

# But...

 DCME Digital Content and Media Expert

123

## The Rules for Audio

Principles of Content Design

- First rule: Don't use it.
  - Fatigue will set in very quickly. Visuals can be avoided by the eyes, but audio is hard to avoid.
  - Annoying or repetitive sound can be colossally detrimental to your experience.
  - Audio will have to compete with other audio in the environment.
- If you must use sound...
  - Make it complementary – ensure that anything that sound tells us can be interpreted 100% through the video. Why? Because if the audio is absent, you don't want to lose the message.
  - Make it appropriate – Ensure that any audio is appropriate for the content. You don't want rock and roll blaring out of the speakers while you're showing medical education in a waiting room.
- Offer the option of closed captioning if you absolutely must. It's not a desirable visual feature, but if you have no other choice, offering up the option to enable closed captioning can be beneficial to an audience the needs to get the information.



 DCME Digital Content and Media Expert

124

## Developing a Content Needs Analysis

Principles of Content Design

- We have spent the previous slides outlining the definition of content, the importance of content, the application of content, and the design of content. It is now time to do the work and develop some content.
- In this regard, a plan is a necessity. There are several questions to ask before creating content that will guide content development and aid the production team.
- Developing a proper and complete content needs analysis will take time in the beginning but will be repaid with a great deal of time and cost saved at the end, not to mention improving the final product in the process.



 DCME Digital Content and Media Expert

125

## Developing a Content Needs Analysis

Principles of Content Design

- What is the objective of the network?
- What is the objective of the content?
  - As it is developed, is it staying true to the objective of the network?
- Who is the audience?
- What time during the day/week/campaign/season will the content play?
- Where is the content going to play (location, venue, category/department)?
- What information is needed to deliver the message (visuals, elements, copy, graphics, etc.)?
- What is the proximity of the viewer to the display?



 DCME Digital Content and Media Expert

126



## Developing a Content Needs Analysis

Principles of Content Design

- What is the size of the display?
- Is there any proximity between the display and the subject of the content (meaning is the product right next to the screen)?
- Does the content compete with other types of content on other screens in the area?
- Is the display easy to see? (Meaning is there direct sunlight on it? Is it in the dark?)
- Do you have existing content sources to draw from? (current video/audio/graphics)
- Does the content require versioning? (A short version, longer version? Different languages?)
- Does the content have a shelf life? Is it evergreen?



 DCME Digital Content and Media Expert

127

From the Experts: Design 101  
*Ryan Cahoy, RISEDISPLAY*

 **DCME**  
 Digital Content and Media Expert

128

# Presented by

From the Experts: Design 101

Ryan Cahoy  
RISE DISPLAY  
[www.risedisplay.com](http://www.risedisplay.com)



# I Want Digital Signage

From the Experts: Design 101

- Ask "Why" 5 times



## Problem to be Solved

From the Experts: Design 101

- White boards
- Bulletin boards
- Static posters



 DCME Digital Content and Media Expert

131

## Measure Success

From the Experts: Design 101

- It you start with "Let's see what happens"
- You will see what happens.



 DCME Digital Content and Media Expert

132

# Minimum Viable Product

From the Experts: Design 101

- Identify a "MVP"
- Start small – fail fast



# Learn and Evolve

From the Experts: Design 101

- Don't know what you don't know.
- Fail > Learn > Adapt



## Keep it Fresh

From the Experts: Design 101

- Keep viewers attention
- Don't let the message get stale



 DCME Digital Content and Media Expert

135

## Reptile Brain

From the Experts: Design 101

- Scan don't read



 DCME Digital Content and Media Expert

136

### Top 5 Tips: Less Words

From the Experts: Design 101



 DCME Digital Content and Media Expert

### Top 5 Tips: Be Visual

From the Experts: Design 101



 DCME Digital Content and Media Expert



# Top 5 Tips: Do Less – Do it Awesome

From the Experts: Design 101



 DCME Digital Content and Media Expert

# Top 5 Tips: Bigger isn't Better

From the Experts: Design 101



 DCME Digital Content and Media Expert



# Top 5 Tips: Keep Improving

From the Experts: Design 101



DCME Digital Content and Media Expert

141

# Examples: High School

From the Experts: Design 101

- Problem – Lack of student awareness for clubs / events
- Measure – Attendance at events / meetings improve
- MVP – A simple display near lunchroom



DCME Digital Content and Media Expert

142

## Examples: University Business School

From the Experts: Design 101

- Problem – No awareness for financial literacy program
- Measure – Increasing class registration
- MVP – Convert a computer lab to have a Wall Street look



 DCME Digital Content and Media Expert

143

## Examples: Donor Recognition

From the Experts: Design 101

- Problem – No wall space
- Measure – Increased donor campaign awareness
- MVP – A single page talking about the campaign



 DCME Digital Content and Media Expert

144

## Examples: Restaurant

From the Experts: Design 101

- Problem – No quick way to promote excess inventory
- Measure – Reduced expired inventory
- MVP – Add a display and run a new promotion each week



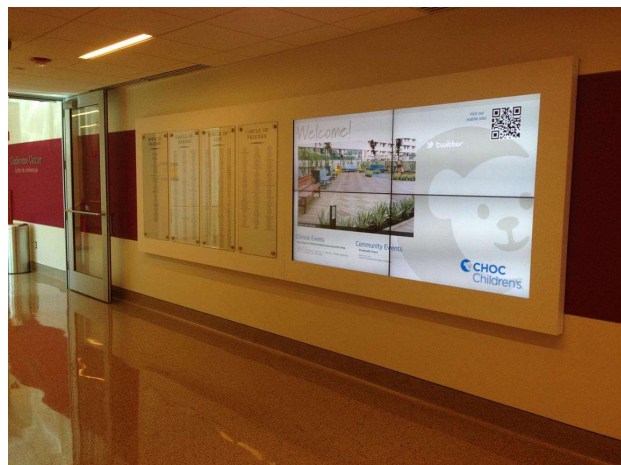
 DCME Digital Content and Media Expert

145

## Examples: Corporate Lobby

From the Experts: Design 101

- Problem – Questions to find office locations
- Measure – Track number of questions to reception
- MVP – Start with 1 entrance



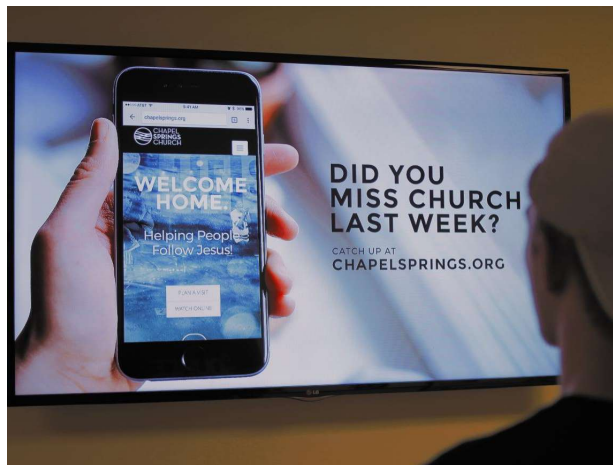
 DCME Digital Content and Media Expert

146

## Examples: Religious

From the Experts: Design 101

- Problem – Member participation
- Measure – Increased participation in events
- MVP – A single screen in the main foyer



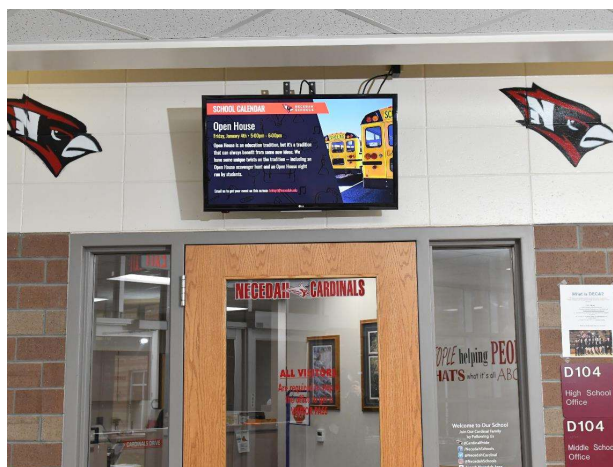
 DCME Digital Content and Media Expert

147

## Recap of Top 5 Tips

From the Experts: Design 101

- Less Words
- Be Visual
- Do Less – Do it Awesome
- Bigger Isn't Better
- Keep Improving



 DCME Digital Content and Media Expert

148



From the Experts:  
The Right Software  
*Ryan Cahoy, RISEDISPLAY*



149

## Selecting the Right Software

From the Experts: Design 101

- Choosing the right provider will help ensure the content can be updated efficiently and that your screen is always operational.



150

 DCME Digital Content and Media Expert

150

## Your Requirements

From the Experts: Design 101

- Digital signage means different things to different people, and you want to make sure the software you select is right for YOUR application.



 DCME Digital Content and Media Expert

151

## K-12 Requirements

From the Experts: Design 101

- Template library
- Updated by receptionist
- Google integration
- Display monitoring



 DCME Digital Content and Media Expert

152

## Menu Requirements

From the Experts: Design 101

- Fault tolerant
- Robust schedule
- POS integration
- Display monitoring



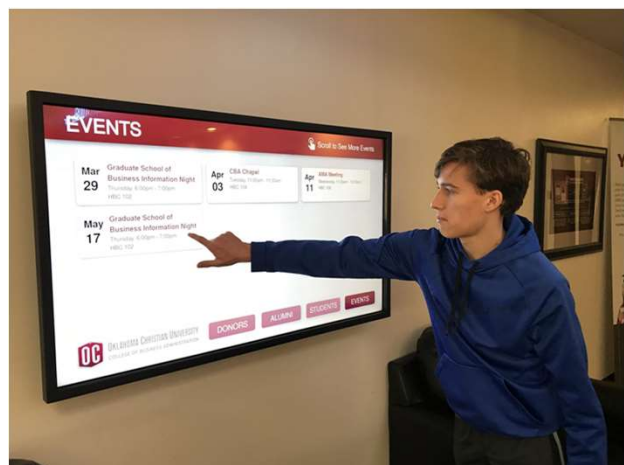
 DCME Digital Content and Media Expert

153

## What's Important

From the Experts: Design 101

- Don't get lured by shiny objects or features you don't need.
- Stay focused on your top requirements.



 DCME Digital Content and Media Expert

154



## Company Size

From the Experts: Design 101

- Should I select the big name or the small company?
- Do your due diligence.



 DCME Digital Content and Media Expert

155

## Due Diligence

From the Experts: Design 101

- Similar clients
- Case studies
- Track record
- Leadership



 DCME Digital Content and Media Expert

156

## "Great" Customer Service

From the Experts: Design 101

- Size of support team
- Location
- Provide scenarios
- Check references



 DCME Digital Content and Media Expert

## Ongoing Improvements

From the Experts: Design 101

- How many releases
- Cost to upgrade
- In-house vs outsourced
- Roadmap

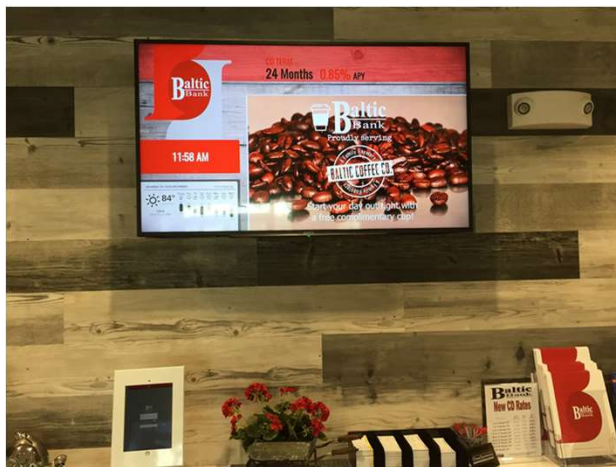


 DCME Digital Content and Media Expert

# Total Cost of Ownership

From the Experts: Design 101

- You may find a great tool that checks all the boxes but it doesn't fit your budget so you may need to compromise.



DCME Digital Content and Media Expert

# Media Player

From the Experts: Design 101

- What type of hardware is required?



DCME Digital Content and Media Expert

## Evaluating Demos

From the Experts: Design 101

- Your top requirements
- See similar clients
- Ask questions



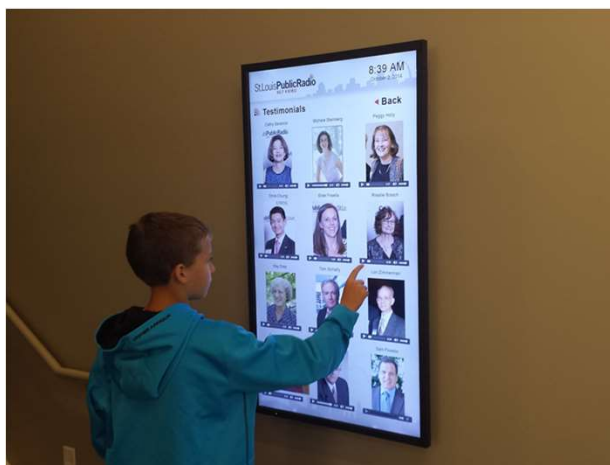
 DCME Digital Content and Media Expert

161

## Free Trial

From the Experts: Design 101

- A short demo can look easy - the real test is when you do it on your own over a 30-day trial.



 DCME Digital Content and Media Expert

162



## Summary

From the Experts: Design 101

- To select the right software partner, it starts with you clearly defining what features are important to you and then having the discipline to evaluate the software providers based on those criteria.



 DCME Digital Content and Media Expert

163

From the Experts: Design Tools  
*Jim Nista, Nista Design*

 DCME  
Digital Content and Media Expert

164

## Creating Digital Signage Content

From the Experts: Design Tools

- Digital Signage 'Content' can mean many things – Slide Shows, Videos, Animations, Interactive, HTML5.
- The skill-sets and tools for each type of content are different.
- Most 'Content Shops' are multi-disciplinary – with some unique capabilities.

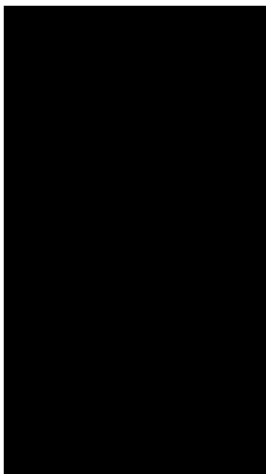


 DCME Digital Content and Media Expert

165

## About Me

From the Experts: Design Tools



- Involved in very early Digital Publishing / Graphic Design. Using Adobe software for 30 years.
- Roles shifting between Programming, Creative Production, Design, and Animation.
- Awards for TV commercials, Animation, Game Design, Graphic Design, Web Development and Digital Signage.
  - Started own Digital Marketing firm in 2002
  - Converted to Digital Signage in 2008
  - 12 DSE / APEX Awards since 2009

 DCME Digital Content and Media Expert

166

## It's about 'The Content'

From the Experts: Design Tools

- My biggest gripe is when industry people say 'The Content' – without taking the time to understand what content is.
- Clients DO NOT BUY technology because they like spending money. They invest in Digital Signage to communicate to their viewers - **to sell more products, inform guests, educate their employees.**
- 'The Content' is creative, programming, animation and graphics which communicates to viewers. **'The Content' is why we are here! Not because of technology.**



 DCME Digital Content and Media Expert

## It's Digital – Have Fun & Make it Amazing!

From the Experts: Design Tools



 DCME Digital Content and Media Expert



## How It's Made

From the Experts: Design Tools

### Common Workflows for Different Types of Content



DCME Digital Content and Media Expert

## Tools we use every day

From the Experts: Design Tools

- Visuals: Adobe Creative Cloud (CC) Subscription
  - Wireframing – Adobe XD
  - Graphics – Illustrator, Photoshop
  - Front End Programming / Interactive – Dreamweaver, Animate
  - Video – After Effects, Premiere
- Back End / Advanced Coding: Microsoft VisualStudio
- Stock libraries: BigStock, Pond5



DCME Digital Content and Media Expert

# Digital Poster / Graphic Design

From the Experts: Design Tools



DCME Digital Content and Media Expert

171

# Digital Poster / Graphic Design Workflow

From the Experts: Design Tools



Sketching / Layout



Graphic Design in Adobe CC / PowerPoint



Content Upload/Scheduling within your CMS

DCME Digital Content and Media Expert

172

# Programming / Interactive / HTML5 / Experiential

From the Experts: Design Tools



DCME Digital Content and Media Expert

# Programming / Interactive / HTML5 / Experiential Workflow

From the Experts: Design Tools

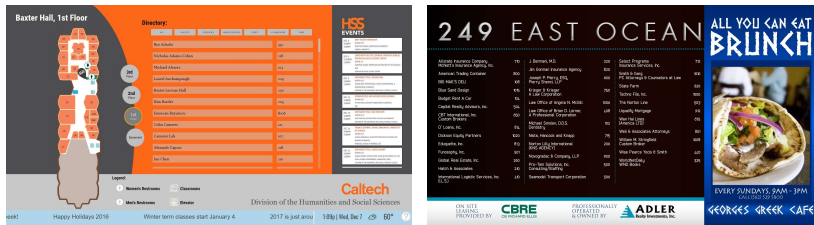


Wireframe Development

User Interface Design

Programming

Deployment and Testing



DCME Digital Content and Media Expert

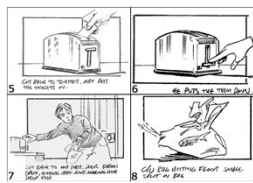
# Motion Graphics

From the Experts: Design Tools



# Motion Graphics Workflow

From the Experts: Design Tools



Storyboarding



Design & Asset Gathering



Editing & Animation



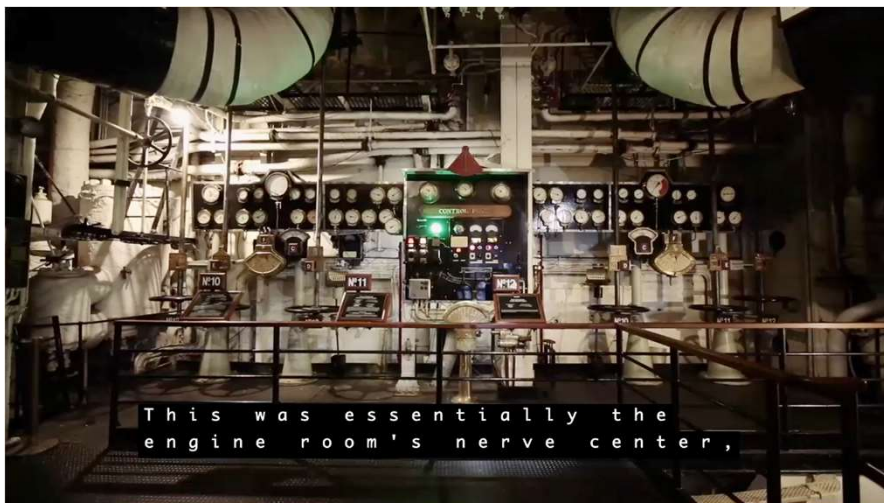
Upload & Schedule to CMS





# Video Production

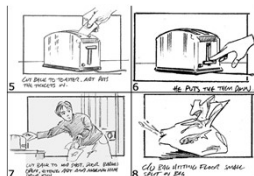
From the Experts: Design Tools



DCME Digital Content and Media Expert

# Video Production Workflow

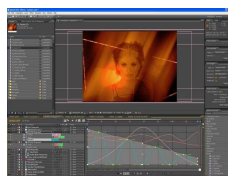
From the Experts: Design Tools



Storyboarding



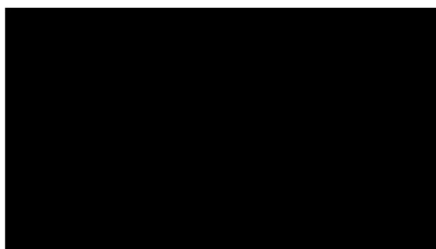
Filming / Production



Editing / Post Production



Upload & Schedule to CMS



DCME Digital Content and Media Expert

# Real World Example – HTML5 Wayfinding Template

From the Experts: Design Tools



- Touch Screen Wayfinding Solution built in HTML5.
- Directory Data editable in Excel or online – client doesn't need special graphics software.
- Multiple content feeds – Office information, events, messaging, weather



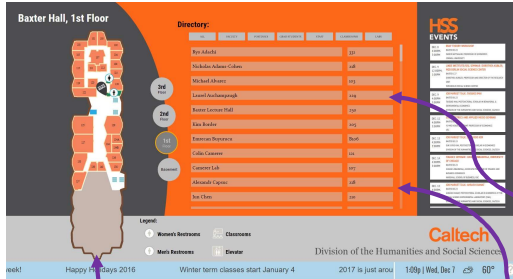
# Real World Example – HTML5 Wayfinding Template

From the Experts: Design Tools



# HTML5 Wayfinding Template – How it's Made

From the Experts: Design Tools



Overall Layout Designed in Adobe Illustrator, then converted to CSS/HTML5 in Dreamweaver.

Programmers write HTML5/Javascript to pull office listing content from online database.

Client uploads Excel or edits names in cloud CMS.

Maps designed in Adobe Illustrator, converted to SVG and coded to include room information so rooms highlight when clicked.



# HTML5 Content Workflow – Wireframe/Sketch

From the Experts: Design Tools

Tools Used:  
 Pen/Paper  
 Adobe XD  
 Adobe Illustrator  
 WebEx

Roughly Map out Zones, Discuss Content Scheduling. Allows for Rapid Prototyping during a WebEx.

Show Clients Examples from other projects.





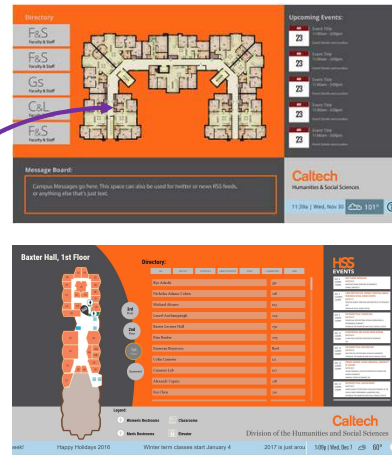
## HTML5 Content Workflow - Design

From the Experts: Design Tools

Tools Used:  
Adobe Illustrator  
Client Style Guide, Logos & Artwork

Begin Designing layouts, creating several options for the client to review.

Gather Assets – Logos, Maps, Floorplans, etc.



 DCME Digital Content and Media Expert

183

## HTML5 Content Workflow - Programming

From the Experts: Design Tools

Tools Used:  
Adobe Dreamweaver  
Microsoft VisualStudio

Begin Coding  
Front End: JavaScript, CSS, HTML5  
Back End: C# for backend



 DCME Digital Content and Media Expert

184

## HTML5 Content Workflow – Deployment & Testing

From the Experts: Design Tools

Tools Used:  
Media Players / CMS

For Some players, like BrightSign we simply copy a URL or collected HTML5 files onto the player for testing.

All players handle HTML5 slightly differently – testing and debugging is key!



 DCME Digital Content and Media Expert

185

## HTML5 Templates – How they Work

From the Experts: Design Tools

- Layout is built in Code and Locked down. End Clients can edit data, not design.
- Editing is done in a browser, uploading Excel files, or with a live data connection.
- Complex solutions, Initial Setup is difficult, but updating is EASY.

 DCME Digital Content and Media Expert

186

## Real World Example – Experiential

From the Experts: Design Tools

- New Year's Eve – Times Square Billboard
- Real-time Text-to-Screen allowing NYE attendees to send their pictures to the screen.
- Participants saw their images and received text messages back from the screen.

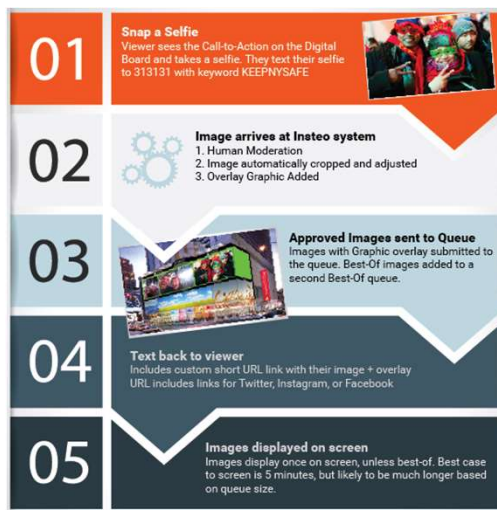


 DCME Digital Content and Media Expert

## Project Components

From the Experts: Design Tools

- Graphic / Visual Design
- Motion Graphic Design
- HTML5 / JavaScript Coding
- Texting platform API connections
- Web Development and Programming
- Cloud image management
- Real-time Image Manipulation
- Digital Media Player / CMS programming



 DCME Digital Content and Media Expert

## How It's Made

From the Experts: Design Tools

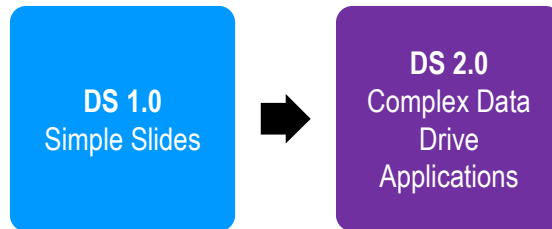
- Graphic Designers: Illustrator / Photoshop
- Motion Designers: After Effects
- Front End Coders: Dreamweaver
- Back End Coders: Visual Studio
- System Admin/IT: Azure / Amazon AWS
- Moderation Workflow: Amazon mTurk
- Web Developers: Dreamweaver



## An Evolving Industry

From the Experts: Design Tools

- Websites evolved from simple sites into interactive/user-edited/data-driven called Web 2.0
- Digital Signage is evolving as well – Digital Signage 2.0



## Real World Example – Before & After LA Galaxy / StubHub Center Digital Menus

From the Experts: Design Tools

<b>SPECIALTIES</b>		<b>BEVERAGES</b>	
NACHOS	5.75	DOMESTIC DRAFT BEER	9.00
FARMER JOHN HOT DOG	4.75	PREMIUM DRAFT BEER	11.00
<b>SNACKS</b>		BOTTLED WATER	4.00
POPCORN	4.75	SODA	
SUPER PRETZEL	4.50	<i>Regular</i>	4.25
POTATO CHIPS	3.75	<i>Large</i>	5.25
PEANUTS	5.75	COFFEE	4.00
<b>SWEETS</b>			
CANDY	4.00		

<b>SPECIALTIES</b>		<b>TONIGHT ONLY GALAXY SCARVES \$20</b>		<b>SWEETS</b>	
STREET CORN NACHO	9.50			CHURRO	4.00
CHICKEN NACHOS	9.50			CANDY	4.00
CARNE ASADA NACHOS	9.50			<b>BEVERAGES</b>	
CHICKEN TACOS	8.00			DOMESTIC DRAFT BEER	9.00
CARNE ASADA TACO	8.00			LARGE DOMESTIC DRAFT	10.00
NACHOS	5.75	PREMIUM DRAFT BEER	11.00		
HOT DOG	5.00	BOTTLED WATER	4.00		
<b>SNACKS</b>		LIME A-RITA	12.00	<b>SODA</b>	
POPCORN	4.75	REGULAR	4.50	LARGE	5.50
POTATO CHIPS	3.75	SOUVENIR	6.50		
PEANUTS	5.75	<small>Living the dream. Check out photos from this year's @LAGalaxy Fantasy Camp:  <a href="https://t.co/0-4NnLA2M">https://t.co/0-4NnLA2M</a>   <a href="https://t.co/7kR6d05dU">https://t.co/7kR6d05dU</a></small>			

1.0 – PowerPoint Slides

2.0 – Multi Zone/User, Data-Driven



## Digital Signage Content '1.0'

From the Experts: Design Tools

<b>SPECIALTIES</b>		<b>BEVERAGES</b>	
NACHOS	5.75	DOMESTIC DRAFT BEER	9.00
FARMER JOHN HOT DOG	4.75	PREMIUM DRAFT BEER	11.00
<b>SNACKS</b>		BOTTLED WATER	4.00
POPCORN	4.75	SODA	
SUPER PRETZEL	4.50	<i>Regular</i>	4.25
POTATO CHIPS	3.75	<i>Large</i>	5.25
PEANUTS	5.75	COFFEE	4.00
<b>SWEETS</b>			
CANDY	4.00		

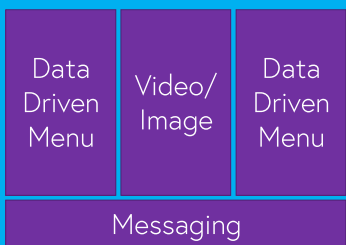
1. Entire Layout is built in PowerPoint
2. Client Manages 38 unique Slides
3. Changing a price involves editing file in PowerPoint then uploading to CMS





# Digital Signage Content '2.0'

From the Experts: Design Tools



Multi Zone Layout with different content creators supplying creative for different zones.



# Digital Signage Content '2.0'

From the Experts: Design Tools



Edit Pricing Fields in Cloud CMS

Multi Zone Layout

Unique Departments Control Different Zones. F&B manages Menu Content, Marketing manages Ads/Videos





## Many creative disciplines in one Digital Menu

From the Experts: Design Tools

Graphic Designers  
Create the Overall  
Layout

Front End  
Programmers  
convert design to  
CSS



Coders write  
JavaScript/HTML5 to  
import Live Data into  
layout

Animators Create  
Video Ads



## Great Design Communicates Better

From the Experts: Design Tools

- Zones are okay but follow specific ratios and leave a 16:9 zone.
- Keep consistent colors & motion.
- Remember you only have a few seconds to communicate - limit your message per slide or image.
- You don't need information most of us have on our phones.



## Content Providers and Outsourcing

Who Creates Content?



197

## Content Providers and Outsourcing

Content Providers and Outsourcing

- Providing content is a huge business opportunity for those who do it well because it's a continuing source of revenue.
- Once the screen is hung, maintenance may be the only cost for some time, but they will always need content.
- The more a client learns about what works best, the more demands the client will put on the provider to deliver relevant content in a cost-effective manner.
- It's more about the content itself. What is the best way to send that message?
- From that, who does the best job of telling that story?
- It can be anyone from an internal team with a crazy idea that would have terrific impact because they get it, to an external provider, like an ad agency, that has the resources to help create the story in a visually compelling manner.



 DCME Digital Content and Media Expert

198

## Types of Content Providers

Content Providers and Outsourcing

- When deciding where to get your content, there are a number of different providers where content can be sourced from:
  - User generated content pools (YouTube)
  - Website developers
  - Ad agencies (BBDO)
  - Post production houses (The Mill, Digital Kitchen)
  - Media companies (Saddle Ranch Digital, Show + Tell)
  - Stock agencies (Pond5, iStock, BigStock)
  - Internal groups (marketing/advertising within your company)
- Their mission is to help you tell your story!



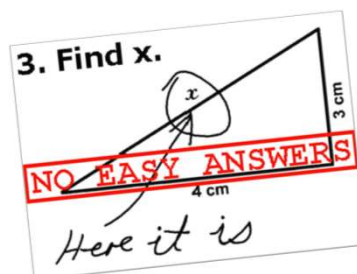
 DCME Digital Content and Media Expert

199

## Outsource or Not?

Content Providers and Outsourcing

- Before you can select a content provider, you need to determine if you are going to outsource the production of content, or if you even have the resources to produce content inside your company.
- One of the fundamental questions that we are faced with is the decision to develop the capability of content creation in-house, or not.
- This is a huge question, and there is no easy answer.



 DCME Digital Content and Media Expert

200

## Outsource or Not?

Content Providers and Outsourcing

- **In-House**

- May cost less, and may cost more
- Difficult to allocate the budget, especially between departments
- Fewer drafts, because the team understands your company and it's message
- Less "accountability"
- Can't negotiate pricing for volume or packages
- May provide faster results
- Not dependent on outside contractor
- Can facilitate more frequent refresh of content



 DCME Digital Content and Media Expert

201

## Outsource or Not?

Content Providers and Outsourcing

- **Outsource**

- May cost less, may cost more
- Risk transference to an already qualified source
- No need to build organization or infrastructure
- Faster ramp up time
- Simplifies allocation of budget
- Single point of accountability
- Needs to deliver amazing results to get paid
- More likely to provide "out of box" solutions



 DCME Digital Content and Media Expert

202

## Right or Wrong?

Content Providers and Outsourcing

- Is there a right or wrong way to select the right provider? **Not really.**
- The ability to source and acquire content usually falls back into some easy understanding with a given client. The client will almost always go where the client knows it can get what it needs.
- At Best Buy, they used a local company instead of going to the big agencies in NYC. Why?
- Because they knew they could deliver great content for a great price, and that they worked really hard for the business.
- Even though Best Buy is a huge company that did have agency representation for external (TV) needs, for the in-store network it was important that they had a partner that understood their needs and gave them what they wanted.

 DCME Digital Content and Media Expert

203

## The Cost of Content

Price VS. Cost

 DCME  
Digital Content and Media Expert

204

## The Cost of Content

The Cost of Content

- In the final analysis, we can look at content from the perspective of perfection, but in truth, content is part of the expense of any digital signage system, and as such, a proper cost analysis must be undertaken.
- There is a phrase that goes something like this "perfection is the enemy of good enough".
- The concept here is that in many cases, content honestly ends up being a compromise of sorts. **The compromise really relates to two factors: budget and time.**
- Let's take a look at the cost implications of content, from the perspective of who creates the content, what time factors are involved, and ultimately what costs might be incurred.

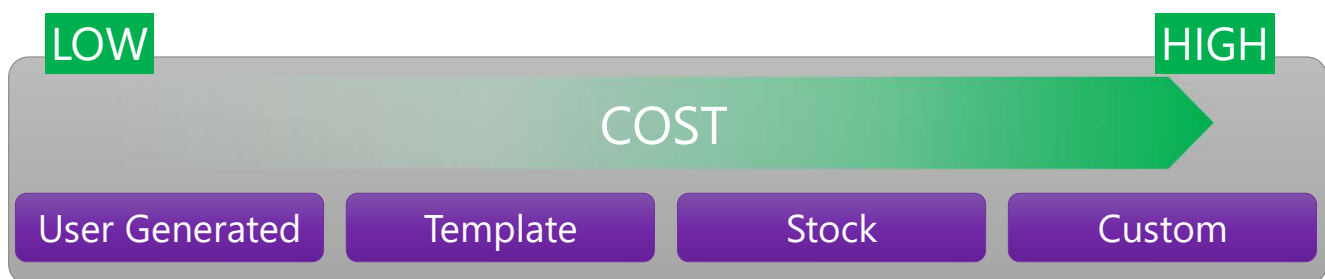


 DCME Digital Content and Media Expert

205

## The Cost Spectrum

The Cost of Content



Remember, there is a difference  
between price and cost!

 DCME Digital Content and Media Expert

206



## Production Costs

### The Cost of Content

- Production costs range widely based on several factors that do not necessarily have impact on the content itself. They can be boiled down to a few subjects:
- **What will work in the environment?**  
If you're an upscale location, where everything is custom and designed, then you may be looking at higher-end production to maintain a look and feel.
- **What is the reach? (CPM)**
- How many people will see it? If you're creating content for an advertiser, they will want to know how many people will see it. The cost of producing content can often be affected by the number of people that will see it.
- An advertiser that wants to be in a particular venue must pay for the time on the program, and that is usually based on eyeballs and traffic. This can affect the available budgets for creating content.
- If it costs a lot to just get on the screen, money for production may be sacrificed to do so.



207

## Production Costs

### The Cost of Content

- **How many screens can this live on?**
- In many cases, production costs can be justified based on the number of locations in which the content will air.
- Over a short time, this can be a substantial advantage over printed signage. Instead of printing more signs, you can create one spot that airs over several screens.
- The more screens, the greater the reach.
- **The content provider**
- What is the size of the company? Smaller teams may charge less due to overhead.
- Quality is starting to level out – you get really great stuff everywhere, so smaller teams may provide great quality at lower prices.
- Has the provider done work on similar projects in the past? – This can affect how much time a provider spends on content creation – studying the brand or acquiring elements.



208

## The Cost of Content

The Cost of Content

- Content is often constructed and production charged by the hour
  - Production costs in creative can vary from \$100 to \$500 per hour, based on many factors, including complexity and existing media
  - From scratch creation will always be more expensive, the cost of versioning from previous elements will be less expensive – editing and formatting instead of production.

### \$100 per hour

- Computer graphics
- Postproduction
- Simple ad elements that can be done with computers
- One-way, push messaging
- Templates

### \$500 per hour

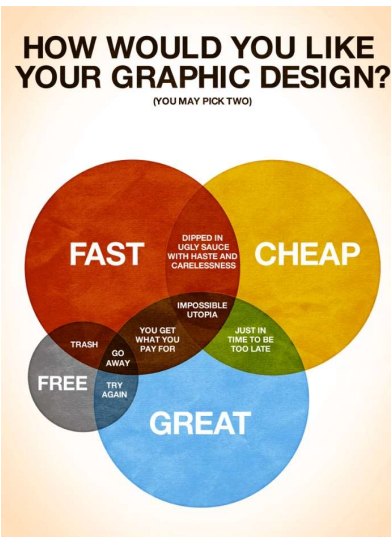
- Computer graphics
- Postproduction
- Live Action
- Hi Res Graphic animation
- Personnel (directors, DP, acting)
- Technical interactivity (touch-screen)
- Custom content

 DCME Digital Content and Media Expert

209

## Ultimately-Pick Two

The Cost of Content



 DCME Digital Content and Media Expert

210

## Analytics and Measurement

If You Can't Measure, You Can't Manage



211

## The Goals of Analytics

Analytics and Measurement

- Determine viewer demographics, measure viewer behavior optimizing content to maximize ROI.
- Deliver increased ROI/ROO through greater insight into consumer behavior.
- Improve business performance as well as the customer experience.



 DCME Digital Content and Media Expert

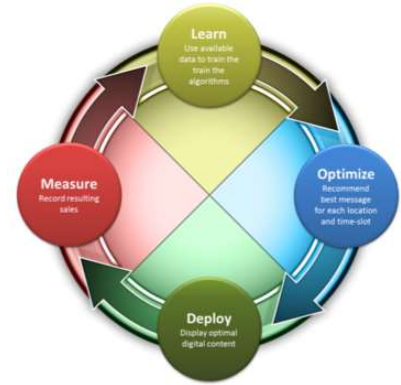
212

212

## Know and Respond in Real Time

Analytics and Measurement

- Deeper insights into viewer behavior from quantitative demographic and behavioral data
- Gain the objective data you need to maximize network's value
- Assess ROI and ROO (Return on Objective) from digital signage
- Conversion ratios, uplift, and responses from campaigns and promotions
- Better ways to spend valuable budget dollars
- Quantify results 24/7
- Optimize on-screen content in near real-time
- Measure content for specific demographic groups and how frequently to change it
- Optimal location of a digital sign



 DCME Digital Content and Media Expert

## AVA-What Information is collected?

Analytics and Measurement

- Anonymous information collected may include:
  - Total count of individuals
  - Demographic data such as gender and approximate age
  - Engagement data such as attention, duration time and number of glances
  - Viewer attributes such as the estimated distance and general position
  - Emotional expression (Facial Coding & Facial Imaging)

**Anonymous Video Analytics (AVA)**

- What does AVA do?
  - Measures ROI for marketing campaigns
  - Transforms digital signage to *smart signage*
- How does AVA work?
  - Anonymous computer vision technology – face detection technology (no images or video recorded)
  - Designed to completely respect privacy. No personally identifiable information is ever collected.
- Who uses AVA?
  - Brands, Retailers, Stadiums, Digital Signage Networks, and more...



 DCME Digital Content and Media Expert

## Answering Questions with Analytics

Analytics and Measurement

- **Questions For the Network Operator**

1. How do I prove ROI/ROO?
2. How can I KNOW who's watching what?
3. Are my screens at the best locations?
4. Is my on-screen content meaningful?
5. Is it impactful?



 **DCME** Digital Content and Media Expert

215

## Answering Questions with Analytics

Analytics and Measurement

- **Questions for the Marketing Team**

1. How can we communicate with our viewers?
2. What are they watching and for how long?
3. How can we KNOW who uses the information?
4. Is the on-screen content meaningful?
5. Is the experience relevant?



 **DCME** Digital Content and Media Expert

216

## The Big Question

Analytics and Measurement

- So... did the content work?
- That's the expensive question. **After all the work and effort, did the content do what it was intended to do?**
- Did it sell more product?
- Did it generate greater awareness?
- Did it get people to like the venue more?
- Analyzing and measuring content effectiveness will be very important as content goes out the door and onto the screen.
- There are two types of analytics:
  - Qualitative
  - Quantitative



 DCME Digital Content and Media Expert

217

## The Big Question

Analytics and Measurement

- **QUANTITATIVE**
  - Results that can be based on data.
    - Traffic
      - Foot traffic
      - Video analytics to measure traffic, profile viewers
    - Sales Lift/Activity
      - POS sales vs. content running on particular channels/programs
    - Touch-Screen
      - Data mining based on interactivity
    - Surveys
      - Kiosks
      - Online
      - In Person



 DCME Digital Content and Media Expert

218



## The Big Question

Analytics and Measurement

- **QUALITATIVE**
  - Understanding behavior with engagement that affects the network model
  - Often cannot be measured in terms of hard data
    - Awareness of products, services, brands, messages, information
    - Enquiries based on provided messages
    - In-person interviews and surveys
    - Video Analytics behavior



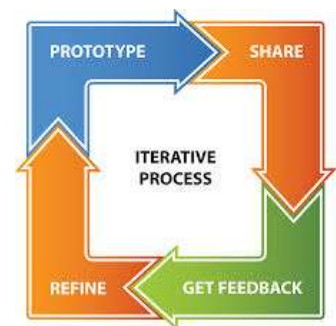
 DCME Digital Content and Media Expert

219

## Consider an Iterative Process

Analytics and Measurement

- An iterative process is a process for calculating a desired result by means of a repeated cycle of operations. An iterative process should come closer to the desired result as the number of iterations increases.
- This is the big trend in web design and software development. It is to not to get caught up in big, complex, long cycles.
- It is about small experiments (changing one thing at a time) measuring, adjust, and run another experiment.
- Many companies get caught up in spending a lot on a design then putting it out and trying to create an ROI metric, but it takes 90+ days to gather data.
- Consider this: What if we as an industry taught users to spend as little as possible to put something simple out and then observe use and find out what is missing and then add that one thing.



 DCME Digital Content and Media Expert

220

## Venue Verticals

Understanding the Venue and Applications



221

## Natural Fit Applications

Venue Verticals

- Retail
- QSRs and Convenience stores
- Food service
- Corporate
- Education
- Healthcare
- Financial
- Entertainment
- Events
- Transportation
- Others-TBD



 DCME Digital Content and Media Expert

222

In Conclusion...



223

In Conclusion...

224

- **Well, you made it through the DCME!** What we have tried to accomplish is to give you an overview (and a starting off point) relative to content strategy, and how to make that strategy a reality in a digital signage system.
- While we have covered each of the issues below, in some detail, we have highlighted a few of the issues so that these will stand out in your mind on topics that will take special consideration as you move forward.
  - We looked at **what content can and cannot do**
  - We explored the **impact and relevance of content**
  - We emphasized the need to **clearly articulate the objective**, and how to **engage the viewer**
  - We pointed out the necessity to **create a strategy** before moving forward
  - We discussed the physical properties of content, and **rules for good content design**
  - We share experts' opinions and experiences
  - We reviewed the **costs of content production**, and discuss outsourcing
  - We discussed the **business side** of content, and **analytics**
  - We explored applications and venues



224



## ANY QUESTIONS?

“ Successful people ask better questions, and as a result, they get better answers. ”

*Tony Robbins*

225

Digital Signage Experts Group

## Contact Us

---

Web:  
[www.dseg.org](http://www.dseg.org)

Phone:  
(442) 245 - 8332

Social:  
@DSEG



# Thank You!

226