

9 Steps Towards Your Digital Signage Project

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Digital Signage - Definition and Expectations

1. Digital signage refers to a variety of technologies used to replace traditional retail signs. Digital signage disperses content and messages in the most targeted and interactive way.
2. Dynamic digital signage can grab a customer's attention and influence their purchasing decision right at the point of sale.
3. It eliminates the high costs of creating and distributing print ad campaigns
4. Digital signage is instant and offers the ability of immediately changing content for various products/services or particular customers.
5. Retailers can earn money with their digital signage network by selling advertising space to their suppliers.
6. Whether the intention is to build a brand, influence customer behavior or simply provide information, dynamic visual experiences created by digital signage ultimately increase sales.

Figures and Surveys - General Data

- Digital Signage. The Global Survey (POPAI Institute)

55% of all purchase decisions are made at the POS

80% of all agencies and brands plan to increase their media spending on digital signage

- Digital Signage in Retail Shops (NEC Public Displays)

60% increase of sales width for a product advertised on digital signs in a hypermarket in comparison to the same product in another store without digital sign support (same retail chain, area, client structure and store design)

Figures and Surveys - User Data

New Poll Reveals Growing Importance Of Internet In Gathering Information
(www.keywesttechnology.com)

1. four groups of news consumers: News-Integrators, Net-Newsters, Traditionalists and Disengaged
2. News-Integrators and Net-Newsters (36% of total) offer the most fertile ground for digital signage
3. Both groups are well-educated and relatively affluent, they show a high propensity for using multiple media types to find the news they desire
4. News Integrators view TV as their primary source of news, but supplement it by visiting Web sites most days
5. 92% percent of Net-Newsters go online daily to find their news. Other sources, like television, are regarded as secondary
6. Traditionalist (46% of total) are older, less well-off and less educated than Net-Newsters and News Integrators. Television is the dominant source of news among Traditionalists.

What does that mean for digital signage?

Figures and Surveys - Recognition and Properties

Digital Signage at the POS (Peter Schnedlitz, Doris Berger)

1. Signs with audio do not increase the recognition
2. People were looking longer at a sign without audio
3. Men recognize signs more intensive
4. Male were looking longer than women
5. Young people were looking longer than older people
6. The recognition of signs is degreasing with the age, but not influenced by education, income or the frequency of being in a location with digital signs
7. The properties "modern", "extraordinary" and "good placement" are rated higher by women than by men, no influence by education or income.
8. The property "useful: is rated higher by people with lower income
9. The properties "informing" and "entertaining" are rated independently from age, gender, income, education

Figures and Surveys - Recognition and Properties

1. most people depend on TV as a valued news source and digital signs are indistinguishable from TVs at first glance
2. 36 percent of the audience likes using a combination of media to get the information they desire. Digital signage can take advantage of this attraction to multiple media sources by adding a broadcast or cable channel into their signage presentations. By using TV in an on-screen digital signage zone, they can grab an audience's attention while simultaneously conveying their own messages in the remaining zones on the sign.
3. Net-Newsters and News Integrators show by their news consumption patterns that they are tech savvy and enjoy using technology to determine which media they consume. Hybrid, interactive digital signs adds the perception that the audience is in control of what's displayed, something that dovetails nicely with this preference.

Conclusion:

Taking advantage of the affinity of these respondents for television news puts digital signage in the game. Using the tools that are available to make it interactive, positions digital signage to excel as an influencer.

The Placement

- To make your digital signage project a success you need to define the right spot to place it. A couple of questions should be answered to define the right spot:
 1. Where do clients stop?
 2. Where do clients congregate?
 3. Which areas do clients avoid?
- Some basic rules
 1. To far in the back makes the sign invisible for the user
 2. To far in the front makes the user feeling uncomfortable to use it
 3. People waiting in a cue will not step out to use a digital sign or purchase offers promoted on it
 4. Signs work best at the point of decision not the point of sale
 5. Keep the center of the sign in the average eye level
- You have to provide
 1. Power supply / Network Connection / Internet Connection / Satellite Feed
 2. Wall or free floor space to setup display and player (load and size)
 3. Control-Room for Servers

The Sign - Basic Knowledge

- Why professional signs?
 - made for 24/7 usage, will live longer
 - higher standard of hardware protection
 - modular design
- LCD or Plasma?

Pro Plasma:

- better playback of all video feeds
- large sizes
- cheaper
- still slight ghost image problems

Pro LCD:

- higher contrast and brightness
- less power consumption
- lighter

The Sign - three monkeys Proposal

- three monkeys recommend professional signs and components in any given case.
- The choice between plasma and LCD depends on ambient light level, content and desired screen size.
- The usage of interactive components like touch screens or RFID are highly recommended.
- Products we recommend:
 - Touch TFT (ELO up to 23")
 - Plasma (Panasonic up to 103")
 - LCD (NEC up to 42")
 - seamless-Plasma-Walls (Orion M-PDP)
 - Touch foils (vision2watch up to 100")
 - Touch frames (NEC and Panasonic)
 - Vesa Wall Brackets and Stands (Vogl's up to 65")
 - Plasma Lifts (mediascreen up to 150")
 - RFID & Card-Reader (tagology)

The Software - Basic Knowledge

- The content strategy/concept makes the decision on the player / producer software
- Content
 - Video (File Playback, Streaming Media, TV-Feed)
 - Scrolls (Tickers)
 - Static Content (Picture, Text, Slideshow)
 - Animated Content (2D/3D Animations)
 - ...
- Interactivity
 - User can choose content to watch
 - User can give feedback
 - User can book/purchase
- Sources
 - Database
 - Web-Feeds
 - local/global File and Text Uploads
- Technical
 - Capable of remote control and network usage
 - As independent from hardware as possible
 - As independent from OS updates as possible

The Software - three monkeys Proposal

- Three monkeys use Ventuz, Windows technologies and provide custom made data acquisition and parser tools.
- Main Features
 - high-end quality 2D and 3D real-time content visualizations
 - based on standard PC hardware
 - real-time motion graphics for TV broadcast and interactive presentations
 - based on industry standard items and working environments
 - communicates with any device that can be installed on your PC, e.g. Touch, RFID, Infrared Controls, Joystick, industrial I/O devices.....
 - standard data and text interfaces to XML, XLS, SQL, TXT, RSS
 - standard control interfaces TCP, UDP, OSC, MIDI, RS232, DMX
 - easy implementation of WMV, MPEG, ASF, AVI, DDS, PNG, TGA, JPG, BMP, PSD, MP3, WMA, CDA, MIDI, ASF, WAV, 3DS, OBJ, RTG and COLLADA Files
 - displaying web content as textures in realtime
 - displaying live video feeds from any windows compatible Video Capture Device (Camera, Input-Card..)

The Network - Basics

- Again the content strategy defines the structures you will need and therefore will influence how the network has to be built
- The network must enable you
 - to keep content up to date
 - to recognize and react on soft- or hardware-failures
 - to synchronize and organize the playback by given factors like time, location and placement in location
 - to add or remove components at all possible positions without loosing performance or the need to change the complete structure
 - to update hardware or software at any possible point without changing the complete structure
 - to react immediately in any case of crisis

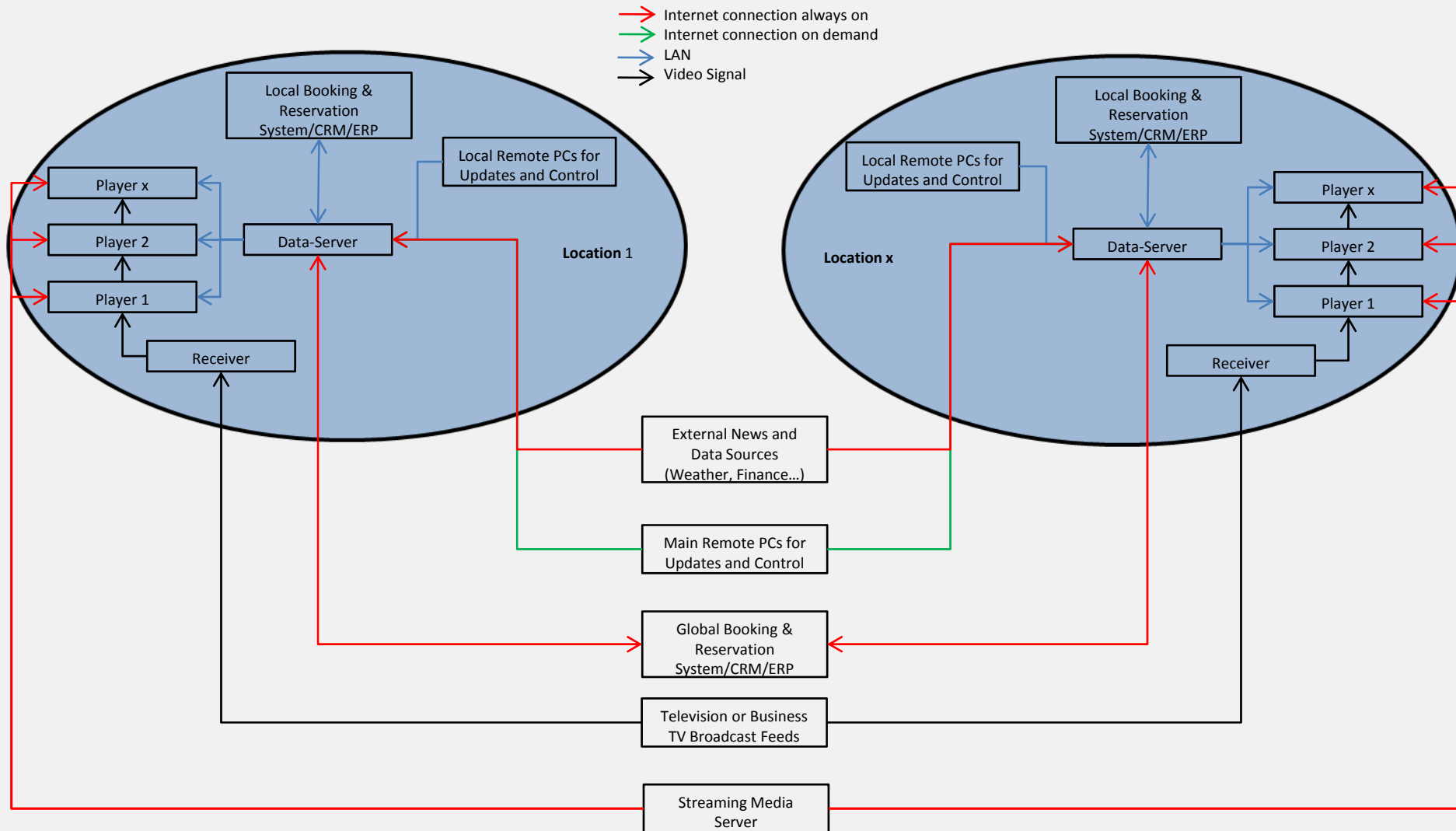
The Network - Up to Date

- Three levels of updates
 - Content
 - Structure and Functionality
 - Hardware
- Content => Player based Updates
 - Local Updates
 - LAN
 - local Data-Server
 - Control Application
 - Global Updates
 - VPN/WAN
 - global Data-Servers, Media Servers
 - Control Application
 - Automated Updates
 - Web Feeds
 - Satellite Feeds

The Network - Up to Date

- Structure and Functionality => Designer Based Updates
 - Updates on that level are the integration of completely new elements (e.g. adding a restaurant guide for a certain town and showing the client a location map on google earth).
 - This kind of update makes it necessary to update the application on the player and depending on the existing structure on all local data servers and control PCs.
 - The network must enable this kind of updates with as less disturbance of the program as possible. (requires proper scheduling)
- Hardware
 - integration of new locations
 - integration of new servers
 - integration of more players
 - integration of card reader systems (credit card, room card...)
 - integration of printer (print location maps, bills, reservations...)
 - integration of mobile device services (exchange with mobiles)

The Network - three monkeys Proposal



The Network - three monkeys Proposal

- Player/Designer
 - By using Ventuz for digital signage solutions, all the advantages of real time graphics rendering can be added to the project.
 - By integrating Ventuz as visualization front-end into an digital signage infrastructure, interactivity and flexibility are added to your project.
 - Ventuz can be linked to various types of data sources, including databases, Excl, XML, RSS Feeds. Ventuz makes your digital signage dynamic and interactive.
 - A structure or functionality update (Ventuz jargon: "Scene") is only a couple of kB big and can be implemented in seconds.
- Data Server
 - A Microsoft SQL Server is providing all content data: images, textures, movies, text, selection criteria, paths...
 - Data parser to other database providers on request

The Network - three monkeys Proposal

- Media Server
 - Windows Media Server recommended, other media servers on request
- External News and Data Services
 - free RSS feeds from the internet
 - charged weather services from the Internet
 - charged data services from Reuters
- Remote and Update PCs
 - different administrative levels
 - full control inside your LAN or from outside via Internet (VPN)
 - simple customized update software (file uploads and text) for different administrative levels
 - rundown control, scheduling
 - selection of content for rundown by location, placement in location and time

The Network - three monkeys Proposal

- **Broadcast Feeds**
 - standard industry satellite or cable receiver and a Windows certified video input card for PCs (same feed for all displays possible, centralized feed change)
 - satellite or cable receiver input card for PCs (different feeds on each display, user can change feed)
- **Interfacing CRM/ERP/Booking and Reservation System**
 - Individually programmed data parser (read/write) depending on existing system
- **Interactivity**
 - Touch Control (Navigation, Text Input)
 - RFID/Card-Reader (Identification, Reservation)
 - Credit Card Reader (Identification, Reservation, Booking, Payment)

The Network - three monkeys Proposal

- **Monitoring/Service**
 - Data Server controls functionality of Player and Sign, Player controls availability of Data and Feeds, malfunction reported by SMS or E-Mail
 - Remote maintenance for all software related malfunction
 - Technical on site service within 24 hours
- **Warranty**
 - Software and Hardware Warranty 2 years
- **Network Bandwidth (to be provided by client)**
 - internal connection 100/1000 Mbps
 - external connection Broadband (min. 512kbps, preferred 1.5Mbps download shared or preferred dedicated lines)

The Content - Goals

“Shoppers want to be entertained and informed, not just advertised to. Don’t broadcast advertising for 40 or 50 minutes at a time – break it up with other non advertising content. While the audience is captive, don’t penalize them for it –creatively engage them.” Tony Turiello, Panasonic System Solutions

- marketing driven content
 1. Improved customer experience - making the customer happy through entertainment clips, lifestyle messaging or positive affirmation
 2. Product & Service information - not just where things are, but show the experience to use them
 3. Special promotions - weekly sales, upcoming events, micro-sales
 4. Ambiance - nebulous content that might not create a top-of mind impression on viewers but instead aims to create a general feeling of well-being and to make the customer glad he is there
- information driven content
 1. News content - headlines, weather, financial news, sports,
 2. Corporate communications - welcome messages, events...
 3. Way finding
 4. Public relations messages

The Content - Basic Rules

People are not looking at your sign, your software or your network they are looking at your content. Therefore your main effort should be to create attractive content

- Digital Signage is a direct marketing tool not a matter of image campaigning
- In a passing by situation you have only 10 to 15 seconds to attract people, if content needs more to come to the point it is worthless. Use this rule to get people in front of your screen. From that point onwards the quality of your information makes people stay or go.
- Overkill kills the message. People choose what they want to see and hear, do not try to force them into your program.
- People will not stop by to watch advertisement, they will watch to get relevant information or getting entertained during waiting periods.
- Design and Appearance are an important factor for attracting people, but make sure all the extraordinary design does not kill your messages or makes the navigation confusing.

The Content - Reference Guide

- The serial position effect
Place your most important messages at the beginning and the end of your list. Introduce the first item on the list at a slower speed, and leave enough time at the end for people to remember the last item.
- Get better recall with chunking and coding
Group key phrases or concepts together - batches of three usually work nicely. Repeat important words and phrases 2-3 times in a row for reinforcement. Consider using alliteration and rhyme, since people are trained to respond well to these patterns.
- Optimize for context and eliminate distractions
Use imagery and symbols that are relevant to the viewer. These should make sense based on the tasks viewers will be looking to complete when they see your screens.
Be careful when including images that are very attention-grabbing, like people's faces and pictures of babies. These can easily divert attention from your core message.

The Content - Reference Guide

- **Crafting your copy and call-to-action**
Keep your text simple and clear. When writing your call-to-action, start it with a verb, keep the verb and subject close together, and either leave the call-to-action on screen the whole time, or show it several times per spot.
- **Sorting out font faces, sizes and styles**
Use sans-serif fonts and large font sizes so that viewers can read your message at-a-glance. Don't use too many fonts in a single piece of content, and don't go overboard with colored text. Avoid writing in all caps.
- **Does color matter?**
Choosing one color over another rarely has any impact on the success of your content. So, pick colors that meet your business and stylistic goals, e.g. Those that match the color schemes of your venues or advertisers.
- **Use contrast to your advantage**
More contrast between foreground and background is a good thing. A minor change like increasing the contrast by 10% can make the content easier to read, and recognizable to a much larger audience.

The Content - Reference Guide

- **Motion, silhouettes and animation**
Use motion selectively: you don't want to interfere with readability or comprehension.
Give people enough time to read the text, and don't move your text around abruptly.
When you're animating an element, try to pick something that has a strong and easily-identifiable silhouette.
Consider keeping your logo and other important features on the screen at all times, without excess motion.
- **Composing shots and scenes**
Remember that digital signs have more in common with posters than with TV.
Match up your text and visuals, and treat each slide like it's a stand-alone poster.
Use visual transitions to link related slides within a larger piece of content.

The Content - Known Factors

Give people what they want - building a content strategy based on customer expectations

- Some unique knowledge advantages of digital signs influence the content
 - you know the place
 - you know the time
 - you know your clients
 - you know their needs
- Keep your content up to date - but what is up to date? This is depending on the content you offer and the frequency clients are in your location. Up to date can be a thing of minutes (stock exchange), hours (weather), part of day (lunch promotion), day (event), week , month, season (summer promotion) or even year.
- It can be useful to have different content on the signs within one location depending on the placement of the sign within the location (bar, restaurant...)
- The factors time and place give you a pretty detailed description of your target group and their wants and needs.

The Content - Hotel Examples

The content defines the ROI you might reach with your project, here is a list of possible contents for your hotel

- auto update content:
 - news ticker (finance, politics, life style...), local/global weather
- local content:
 - hotel and location info (restaurants, spa... incl. booking options)
 - promotions
 - restaurant guide and menu
 - orientation (hotel and location)
 - events calendar (internal and external)
 - conference information
 - booked advertisement
 - general traveler information (car rental, airport, taxi, “virtual concierge”)
 - television-feeds (local and international)
- global content:
 - hotel information (global locations, rates, bookings, news, promotions)
 - imaging
 - frequent traveler programs

The Content - three monkeys Proposal

After you heard this summary of expertise from people and companies around the globe, three monkeys would like to ask you a couple of questions.

Please do not think about the limitations of your budget now, we will discuss ROI and investment topics in the next step. A full three monkeys proposal for your project, based on the briefing we had so far will be the last bullet point of this presentation.

- Where do you want to setup your digital signs, How many?
- What size and type of digital sign would be the right choice for you?
- How many locations do you want to cover now, later?
- What do you think is relevant or important content for your digital signage project?

The ROI - Measurement

Three possible targets for inventing a digital signage project define three different attempts of measurement

- Advertising a product or service
comparing the sales width of two locations offering the same product or service one location with digital signage, one without
- Communicating and Informing
 1. track the users behavior on the digital signage, which is possible if there are interactive components
 2. ask the user to complete a short automated survey
 3. link the so far unknown user to specific client data by asking them to use their RFID room key to go to certain sections within the program
- Entertaining
measuring the factor of "being entertained" is a specific digital signage related category in a customer satisfaction survey

The ROI - Revenues and Savings

- Increase of the clients in house spendings
- Knowing about the communication value of your digital sign will put you in a position to market the sign to other companies, which are sharing your target group. An additional external revenue for your project.
- The implementation of digital signage will save money for creation, production and roll-out of printed displays and brochures.
- The integration of concierge like services might help saving money for staff.
- The content of your digital signage project can be easily adopted for a second usage at exhibitions, trade-shows or congresses where you get an interactive tool to promote your location.

The ROI - three monkeys Proposal

- **Basic Implementation:**
 - All user inputs are recorded by date, daytime, sign placement in location and location
 - A quick automated user survey is implemented . To motivate clients to participate a raffle should be included
- **Advanced Implementation:**
 - Allow the client to use his/her room key or frequent traveler card to make reservations, call taxis,
- **Full Implementation:**
 - Allow the client to use his/her credit card to make reservations, bookings or even pay his/her bill.