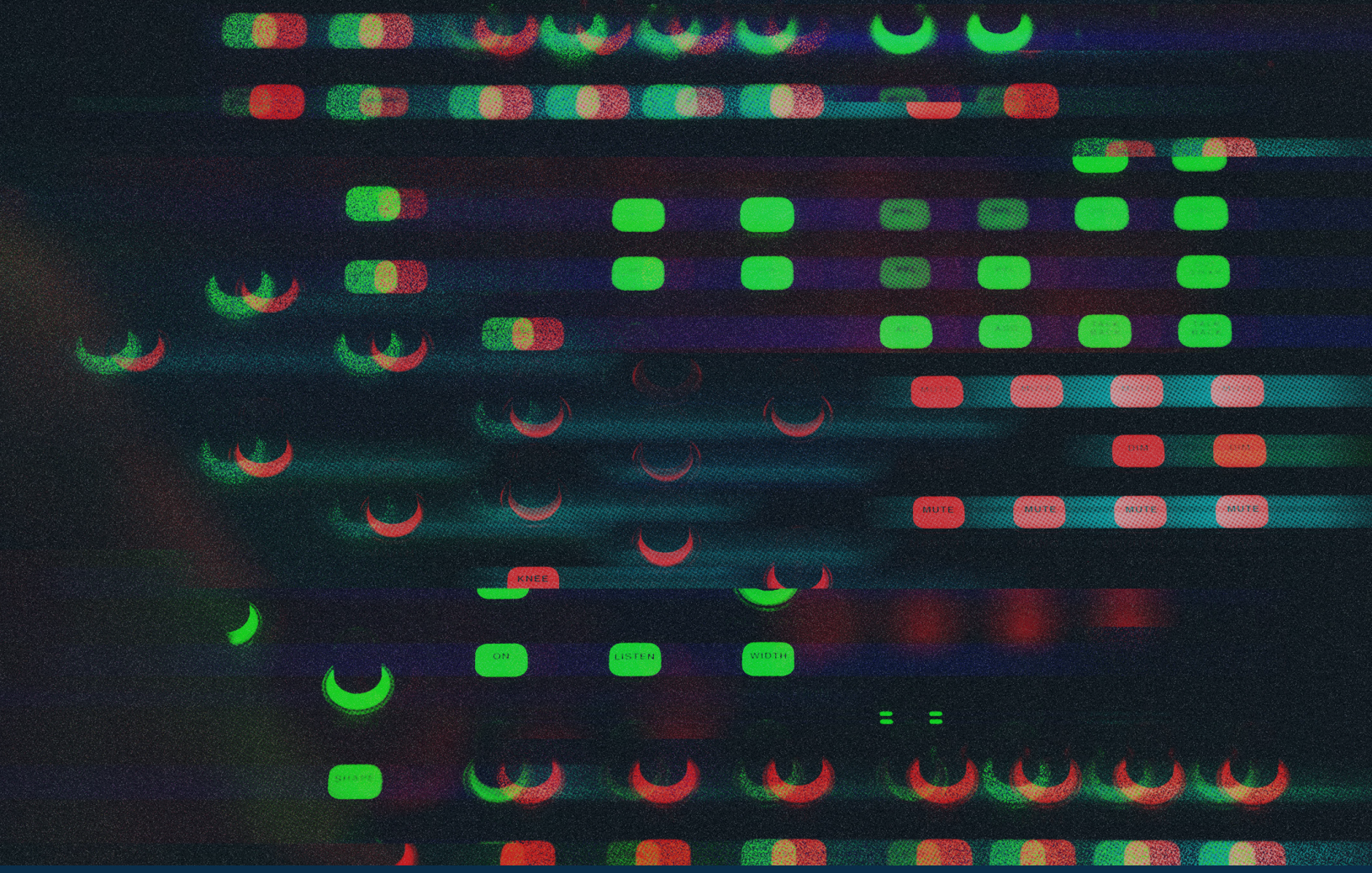

What Many Church Leaders *Miss* About Audio Video Lighting and Acoustics Planning

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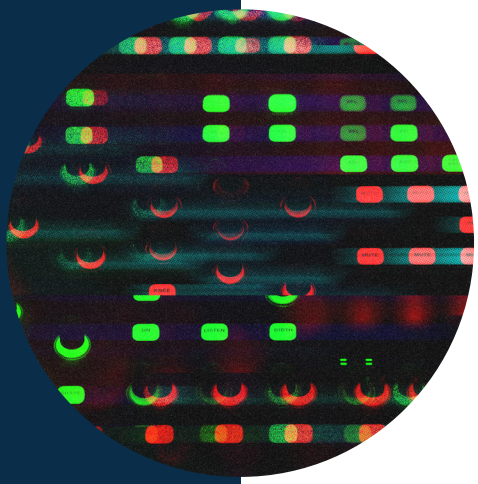
LEADERS IN AV DESIGN INTEGRATION



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What Many Church Leaders *Miss* About Audio Video Lighting and Acoustics Planning

By David McCauley

Imagine turning on the TV or opening your favorite social media app to browse through various programs or posts. You come across one of your favorite talk shows, speakers, music groups, pastors, or comedians. The stunning visuals and captivating audio mesmerize you. You become so engrossed that time slips away unnoticed. You're immersed in a well-produced, well-funded production. This thought crosses your mind: *If only I had "that" [sound system, lighting rig, speaker rack, or another high-tech item], I could reach the world just like they do!*

You begin an online quest to acquire the necessary equipment for your organization. However, you quickly encounter budget constraints, which limit your options. To stay within your budget, you opt for the most affordable choices, compromising quality for cost. This approach leads to investing in cheaper items rather than a few high-quality ones, hoping to upgrade in the future when funds allow. For now, your goal is to equip your church with new, budget-friendly gear, aspiring to emulate the polished look and sound of productions you admire on TV and online.

Once your new, "budget-friendly" equipment is installed, the results disappoint and fall short of your expectations. This leaves you feeling even more defeated and frustrated. Does this scenario sound familiar?

You're Listening to the Wrong Voices

One of the main issues we see is churches who follow the advice of someone they've chatted with on Facebook or Instagram about a solution they found for their unique church context. By listening to the wrong voices, they make strategic mistakes in Audio Video Lighting (AVL). Instead of seeking out expert insight, they listen to friends, people on staff, YouTube videos, or they try to emulate whatever social media posts are popular. We call that "keeping up with the Joneses." The Joneses represent anyone perceived as trendy or successful, whose style many try to copy.

Online, there's no shortage of videos with poor sound quality and inadequate lighting. Is this the reputation you want for your church? Resist the temptation to release a mediocre piece just for the sake of appearing active. If your goal is genuinely to reach people, it's crucial to carefully consider how to create the most impactful experience for your audience. Reflect on the desired outcome and the reactions you want to evoke in your environment. The key question is: What vision do you have for the impact you want to make on those attending your services?

Begin With a Vision of the Desired Reaction

"Vision of reaction" may be a new and interesting concept for you. Setting aside likes, comments, and shares on social media, what do you want someone to feel, think, and share on social media? What do you want someone to feel, think, or be inspired to do after having experienced your production? Will you play it safe or make waves? When appropriate — and appropriate to your organization — make waves!

Let's unpack the impact of your actions a little more. Consider whether they align with your core message and the community you aim to build. A

relevant example is the tuning fork experiment, easily found online. In this experiment, a tuning fork with a light ball on a string is clamped in place. The ball touches one of the fork's prongs, allowing observers to see if the fork vibrates. A scientist places another tuning fork with a different frequency next to the clamped one. When this fork is struck, there's no effect on the clamped fork or the ball. However, when a tuning fork with the same frequency as the clamped one is struck, the clamped fork and the ball vibrate and move. This demonstrates how energy from the resonating tuning fork affects the other.

This concept applies to crafting experiences that resonate with your audience. It's about creating something people can connect with and feel activated by. This process begins with intent. From intent, you initiate action, and from action, you generate a reaction.

Many church leaders overlook the importance of viewing their church service videos and the content produced by their social media teams. This neglect can adversely affect the church's global mission. Conversely, the most effective church leaders pay close attention to the videos created for social media, YouTube, and other platforms. They often don't feel satisfied until they witness the kind of reaction they anticipate from viewers. Indeed, prioritizing quality demands time, creativity, vision, and effective communication to convey your passion for outreach. Having a team that shares and effectively presents this vision is crucial. If your team doesn't resonate with this vision and fails to deliver experiences you would appreciate, the issue extends beyond technical aspects.

How to Create a Quality Production on a Shoestring Budget

So, what do you do in cases like this? Your budget is tight or nearly non-existent. Your tech team has incredible experience in some things, but not enough experience in other things – some of which matter quite a bit. Your equipment is aging or barely functioning. And the importance of sharing the gospel well is ever-present. How do you provide a quality production on a shoestring budget? We're glad you asked!

First, you need to take stock. Take an inventory of what you want to do, who you want to reach, and how important it is to you and your ministry. Then, you need to answer some very important questions: Are you willing to understand the real costs, and are you willing to make hard choices?

Often, a church tech team leader has a vision for one thing, yet it gets traded for a lesser vision because so many things are pulling at the plan – budget, personnel, timing, space, etc. If not guarded, the vision becomes watered down to resource or accommodate everything.

In our experience, it's best to start with one thing and get it to the point where you're doing it well consistently. Once you have that one thing where you want it, you add the next thing, then the next thing – keeping each element on par with all the others. If you cannot resource one of the items on your list, then you plan to work with the current piece of equipment until resources are raised to purchase that item. Then, when the resources are available, you deploy the next step. This sounds simple and is in theory, but it can be complicated to make happen in your very real-world context. In large part, it means saying "No" to something, maybe many things, for right now. It means you focus on only one or two things until you get them into really good shape. These one or two elements are most important, and you do not take your focus off those things until they align with the vision. Then, you pick the next one or two things to work on.

Church leaders often attempt to accomplish too much too quickly. While some succeed, many fail because they overextend themselves. One strategy is to construct a foundation for the entirety of the building, but build in phases where the central meeting space and lobby are built and finished first. This would leave some parts of the building's foundation exposed with a central structure built and finished out for the most pressing meeting needs. This approach allows you to concentrate on building the main part of the facility exactly the way you want it and that it needs to be, ensuring quality over quantity.

Alternatively, you could build the entire structure but leave some rooms unfinished. This way, you can allocate your resources effectively to the areas you can develop fully, creating them exactly as envisioned. Adopting a phased approach gives you time to acquire or allocate the neces-

sary resources for the next stage of your vision. As people experience the positive and resonant atmosphere of your church, they might be more inclined to support its growth.

Understanding the Real Costs of Strategic Production Planning

Earlier, we mentioned real costs. What are real costs? They are those things that aren't covered in a budget. Real costs are the time, knowledge, equipment, labor, creativity, and square feet of space needed to bring your expertly engineered vision to life.

Start with defining the connection you want to create with attendees and how you would like people to participate in the space. Consider what they will respond to, and create a decision tree that helps you map out and decide what is important. This starts with making an intentional plan and figuring out which spaces you should put your resources toward. A good team who can come together in the same room and make decisions is an important key to a successful plan. You must have a consensus and a leader in attendance at these meetings who can make final decisions.

Once you've taken the vision and defined the most important parameters, you've started creating the framework for executing your vision. Then, as the decision tree gets more granular, the next steps can be taken with smaller groups of staff in more specialized, relevant roles. Remember that these meetings still need to involve a leader who has the authority to make decisions – someone who will own the decision. Your plan won't work without involving a designated person with the authority to make choices at the highest level.

When you take the time to create a decision tree, you will find that it works on many levels with many things – from deciding if your church wants only to have a performance space, deciding if you need offices, figuring out what classrooms are needed, and the list goes on. The choices you're making with the decision tree need to be resourced, and you must remain committed to choosing one thing at a time and doing that one thing well before moving to the next thing on your list.

On new construction projects or renovation projects, architects are typically involved in the overall plan. It's very important that you and your production team be involved as closely to the start of the project as possible. When an architect isn't involved, as might be the case when replacing or relocating equipment, it's imperative to walk through the decision tree to make sure that you can make the correct investment based on your vision for the future.

The Psychological and Physiological Impact of Production Planning

One of the most valuable things you can do to improve your AVL is to research and discover how it impacts people psychologically and physiologically. There are real studies that can help you make better decisions for the execution of your vision. If you discount some of the research findings as irrelevant mumbo-jumbo, you could make mistakes and cut branches from your decision tree that negatively affect the experience you desire for your attendees. This goes back to that vision of reaction we talked about previously. Through audio, video, lighting, and acoustics, you can help guide people's reactions. This is done all the time, in any live or recorded performance, in shopping malls, and even on social media platforms. This method of evoking a desired response from an attendee or participant is happening all around us daily – there is a whole industry built on it.

Look at places like Disney, playhouses, movie theaters, concert venues, etc. All these places use every ounce of creativity to create a reaction. You might be thinking: *Well, that's entertainment, not what we are about!* Our team of experienced engineers would disagree wholeheartedly. Yes, you aim to communicate a message and inspire your attendees not entertain them. However, communicating in a way that appeals to their senses is one of the best ways to ensure your message takes hold in your attendees' hearts and minds.

Let's look at some examples that are the ancient equivalent to some modern-day venues. First, consider Solomon's temple. Its entire design created awe-inspiring reactions. Second, the Sistine Chapel tells a story on its walls through pictures. And finally, look at the Sagrada Familia in Barcelona, a beautiful facility that speaks inside and out.

The people responsible for creating these spaces knew what they were doing and were focused on creating spaces that evoked the reactions they wanted their attendees to have.

In our modern world, we tend to think this is new, but really, it's not. Let's look at some parallels. Art is storytelling using different mediums to communicate, making ideas come to life, and inspiring responses. If you think haze machines and light shows are new, just think of the hazer as incense burning and wafting around while the sun shines through the stained-glass creating rays of colored light. Those light beams, when seen through clouds of incense, create movements of diffracted light and shadow that dance in the room. Now, think about being in this atmosphere as you listen to the words of a prayer while looking up at the ceiling of the Sistine Chapel.

The modern version of this is listening to U2 while looking at the inside of the Vegas Sphere, which is the new version of those awe-inspiring spaces of old. We're not saying that you need to build any of these things but think about why these places have such an impact. And then think about what impact you want your spaces to have — and do it well.

For a simple, pared-down example, look up Pretty Place Chapel in South Carolina. This simple space was planned and executed with great intent, using nature to speak and create an unforgettable impact on anyone who visits.

With the right creative ideas, you could have something like Pretty Place Chapel in the middle of a city using technology. Instead of traditional windows and skylights, you could use screens framed to look like windows out into nature. Use imagery that transports people out of the mundane into another time and place, figuratively, to provide a moment of impact. Think of screens on the ceiling that could act like windows to the stars. Or think of the imagery on a wall as stained glass or a painting like in a chapel — or just a window to someplace else. Imagine being able to adjust elements of the room to change acoustics so that when the attendees are singing, it sounds like they are in a cathedral, and when the pastor speaks, it sounds like a small, intimate space.

Effective Production Leads Attendees Through an Experience

Think innovatively about AVL production regarding leadership and how it uses contrast to guide people through an experience. When AVL is utilized effectively, it aids in maintaining focus and minimizing distractions. Consider the adage, "A picture is worth a thousand words." Now, imagine the value of a video, with its 30 to 60 frames per second. Audio and acoustics play a pivotal role in communication. Grasping these concepts distinguishes the top 10% of tech teams, whether in studios, theaters, or churches, from the rest.

Many leaders lack the time or interest to delve into these topics or understand the basics that could enhance their decision-making. However, leaders who invest time in researching and learning about their craft and who apply this knowledge truly make a difference. They are the ones who ignite passion and progress. These leaders leverage all available resources and strive to comprehend these concepts, guiding their teams toward a clear vision.

Using a Decision Tree to Identify Production Priorities

When you create your decision tree, think of it as a custom set of questions you'll ask of everyone involved in planning. For each question asked, have everyone rate the level of importance the question has in light of the goals and vision of the organization. Then, take the time to talk through the ratings together, coming up with a consensus as to the level of importance for each factor within the plan.

For example, how important is: Connection from the stage to the audience, and from the audience to the stage; hiding technology or showing it off in architecture; brand recognition; budget; strategic vision; multiuse; and a host of other things that must be worked through. Then, spread out from there, starting with the big questions and then branching off into more specific questions. Always go back to the top three priorities on the list, then move through the rest of the list once those top three are covered well. You only move on when resources are available to cover the next three priorities. When a church doesn't work through a decision tree like this, there is a tendency to scatter-shot solutions blindly. You might hit all the things on your list, but they won't be

executed well because you are trying to accomplish too much, and your results will suffer.

The goal of a decision tree is to find out which factors supersede all others. Then, what's number two? And so on, and so on. All these things can be important to some extent, but you need to find the value of each as a team. If this is a retrofit project, then it will require a smaller team. If this is new construction or a renovation, the team will seek input from the architects and designers because the plan would affect their work as well.

This consideration is so important when designing. A perfect example that we see all the time is when someone insists the church has center doors and a center aisle. Then, the architecture and infrastructure are shifted to make this happen. Later, you might find out that a center aisle and center doors will be used for a very small subset of groups and programs in the space — most of which are not even in your top three priorities. Why is this a big deal? Mainly for cameras, but also for some other technology in use. If providing streaming services online is important, you must have center cameras to look correct to your online viewing audience. Doing so keeps to the standards of your top three priorities. In addition, if the audio is off-center, it might affect the experience for attendees.

Fortunately, there are methods we can use to mitigate these effects, such as spanning the center for cameras. But correcting in this way means that you are spending a lot more money to handle the request for center doors and aisle, so you need to go back to questioning: Is this need something that you want to spend resources on? Or does something else supersede it? This sounds like a simple issue, but when you think about it through the lens of needing the proper camera shot (depending on where that is on your priority list), it becomes a big deal if you are going to produce it with excellence.

Another example is that the tech people get seated in the back of the room against the wall or up several steps. You might think seating them out of the way gives room for more seats and helps the tech people see better. That might be somewhat true, but there's more at play than that. What you are doing when seating your tech team "out of the way," is putting them in one of the worst places in the room.

When placed up higher than everyone and against a wall, physics comes into play. Typically, this area is boomy and out of coverage. So, your tech team is producing the service from a location that has inaccurate sound and visuals. If you place cameras in the back too, you will have to use long lenses or compromise on what shots you can take. At the very least, you should consider having a two-tiered audio-video booth, with one level being higher for the lighting and video crew and possibly the cameras. Then the lower or forward area should be one step up from the audience and at least 10 feet from the wall. Having a higher booth area behind gives space and proper height so the audio engineers can hear what the rest of the room is hearing. This type of audio-video booth can be constructed so that people can be seated to either side of it. This keeps the same number of seats but transforms how much control the technical team has.

Sometimes the answer from the church is they still don't want that two-tiered booth set-up, and they are willing to compromise their sound, lighting, and video quality for a cleaner-looking audio-video booth. If they know the true cost of this, then move forward with the understanding that the space's aesthetic is a top three priority for the church — more than maintaining a cohesive, connected experience for attendees. There is little doubt that you will hear comments from staff, volunteers, and attendees about how things sound different in various parts of the space, and there's a reason for this: Physics. When aesthetics is a higher priority than an inspiring, connected audio-visual experience, you and your team will hear complaints and answer questions about the differences in quality. Money can bend physics, but it can be very expensive, and it still won't magically be the same as if you had made a few different choices and compromises. Aesthetics and AVL quality can exist together when planned properly from the start.

Recruit and Retain an Experienced Tech Team

Talent is one of the most overlooked items in production planning. Your vision may be far beyond the talent or experience level of the people you have working the lights, sound, and video. This is not meant to be a slight on anyone working in the church or volunteering their time on

a tech team. Unfortunately, giving professional tools to an inexperienced team member does not make them a professional.

Anyone can walk into a music store and buy a top-of-the-line guitar, like a Fender Stratocaster or a Gibson Les Paul. When played by the man on the street, it would probably sound like a car crash. But when put in the hands of Eric Clapton, the guitar would sound like the cry of a dove. It's the same with equipment and vision: You'll only achieve the desired outcome with the right talent.

So, what can you do if the skills represented on your tech team aren't where they should be? Well, you can hire professionals (and even that is hit or miss) or invest in training for your team. Yet, even with a good school or training resource, a person can still lack natural talent or discernment. Plus, there is so much misinformation on sound, lighting, and video techniques that it's difficult to know where to turn.

Testing the person is the only way to find real, inherent talent. Please don't listen to what they say, watch and listen to what they do! It is difficult to deploy a testing process for team members and potential team members, but it makes a world of difference.

Returning to our guitar example, a professional will not complain about the guitar; they will make it sound as good as it can sound. Then, when you give them a better instrument, it sounds even better! Along the same lines, we've seen people do amazing things with sub-par equipment. Then, when you equip them with something of higher quality, it just comes alive. As you might've guessed, the opposite is true also. Give good equipment to someone lacking vision and talent; what they produce with high-quality equipment is sub-par.

It's important to establish expectations and standards while also conducting a real evaluation of a person's talent. Yes, this process might be uncomfortable, but at least you will know where your talent cap is. Then, you can decide if that is an acceptable level of quality or if you need to push forward and take your time finding the right team members. When you find good people, take care of them — they are more valuable than you realize.

Now, where do you find talented people? Start with theater kids in middle and high school. Then, move to colleges that have technical and theater degrees. Another great place to look for talent is through the United States Institute for Theatre Technology (USITT), an association and trade show for people working in audio video lighting production. It is off the radar for most, making it such a great place to find talent. Remember: These people are passionate about creativity, so if you aren't ready to let them use their skills to produce, then let them go and allow another organization to benefit from their talent. Someone with vision truly needs them.

Putting Together All the Pieces of Your Production Plan

Once you have planned out the space and developed a vision that accomplishes your goals and gathered the right personnel for each role on the team, then you can start to acquire the equipment you need (in phases) to create a meaningful experience for your attendees.

Our final piece of advice when strategically planning your church's AVL is to be careful of the opinions and experiences of others online. Just because you can rent a system and make it sound good for a night does not have any bearing on all the logistics, acoustics, construction, coordination, and fit and finish of a proper AVL installation. Don't get caught up in the hype or confidence of an online influencer. There are people in your community or city who have real talent and first-hand experience — people who have made mistakes and learned the hard lessons that have grown them into great integrators.

Transforming ordinary spaces into extraordinary audio-visual environments is our passion at CSD Group. As veteran creatives, our mission is to resonate with the heartbeat of every gathering, pushing creative boundaries and industry standards. With precision-engineered solutions, we elevate your message, captivating audiences with immersive, engaging experiences that rise above the ordinary. Join us in forging experiences that inspire and change lives.

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