

LED VOLUMES for Documentaries & Biopics:

An **ETHICAL GUIDE** for Filmmakers, LED Volume Studios and Commissioners.

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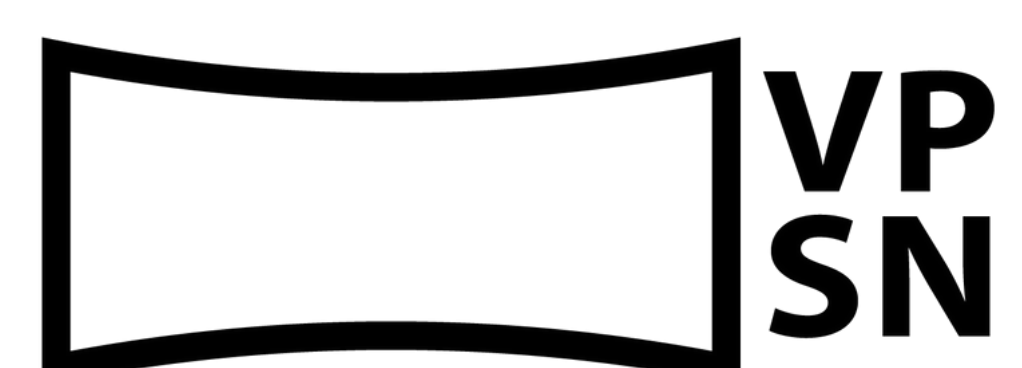




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INTRODUCTION

About the Guide

The following guide is intended for VP Studios, filmmakers, institutions, and future participants in VP documentaries and biopics. The goal is to **establish positive guidelines** for the **early use of LED volumes in documentaries and biopics**, ensuring they are implemented from the outset. The aim is for the reader to **approach** these guidelines **with an open mind**, understanding that restrictions may prevent certain things from being implemented, yet still **consider how this could be possible or what is feasible**. It is the belief that these processes can be implemented without sacrificing the final product or the filmmaker's creativity when using LED volumes for documentaries and biopics. The suggestion is to **take a pen and paper** and **make some notes** as you read the guide, **reflecting on choices you are making or have made**.

Often, **we think ethics is negative**, but that is **not the case**. It's about **improving the process and** getting everyone involved and excited about the concept of creating this documentary. This **guide also highlights** how **LED has the potential to improve documentaries ethically**, as well as **key considerations** for making documentaries and biopics using LED **to minimise potential harm**. Although this guide is written with documentaries and biopics made using LED volumes in mind, it can still be applicable to consider for any form of filmmaking. Essentially, the most crucial consideration is how to minimise harm to documentary participants, crew and actors and honour the sacredness of the true story. These are all suggestions to consider and include for mitigating harm. It is **not one size fits all**; it's about being considerate and prioritising care above everything else. Throughout this guide are **examples of documentaries, films and biopics made in an LED volume to inspire you**, change your views on filmmaking and support the values in action.

The guidelines highlight **eight sections** covering topics such as informed consent, fair representation, power, trust and transparency, collaboration,

respect and well-being, accessibility, realism, immersion and authenticity, as well as challenges related to commissioners and technology. These sections were **defined from research into relevant literature** surrounding traditional documentary filmmaking, existing guidelines and LED volume filmmaking. They also resulted from **multiple conversations** with the **Documentary Accountability Working Group's director, Natalie Bullock Brown**.

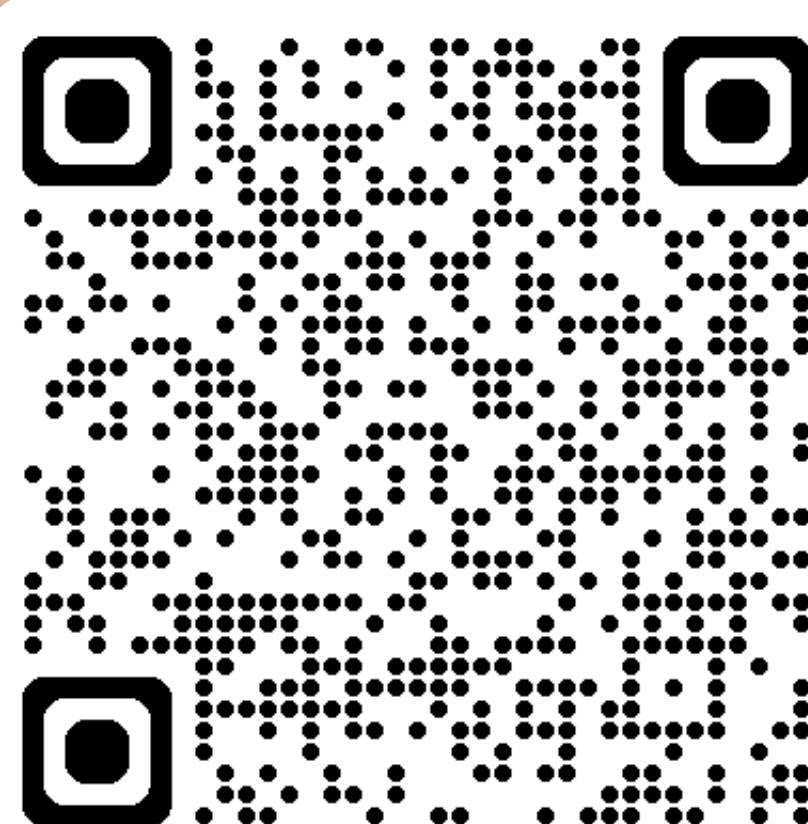
The Creation of the Guide

This guide is the result of a **year-long master's research project** that investigated the ethical implications and solutions of using LED volumes for documentaries. This investigation also encompasses the use of LED volumes for biopics; therefore, this guide considers both. The guidelines are informed on **13 semi-structured interviews**, each lasting between 60 minutes and 120 minutes, with **industry professionals from the LED volume and documentary** industries. The research participants were from countries in **Europe and Northern America**.

THE AUTHOR

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Ella Betts is a **lecturer, researcher and co-ordinator** at Breda University of Applied Sciences, teaching the use of LED volumes. She was the **associate producer** of the **Nigerian feature film "Lost in London"** and a location assistant on Warner Brothers "Dunkirk". She has worked on **independent short documentaries** covering the award-winning restaurant Ter Marsch and Co., the freshwater five, and women's football in the UK.



Feel free to **connect on LinkedIn**







Reach out if you are interested in my work or would like to collaborate




Section 1: **INFORMED CONSENT**

Values in Action

Utilising LED volumes for documentary filmmaking requires us to **reflect on the process of obtaining informed consent** from the participant. **Consider the following strategies:**

-  **LED volume studios should allow both filmmakers and participants to view the studio space before production days** to understand what they are working with.
-  **Avoid making decisions about using LED before consulting with the documentary participants.**
-  Introduce **multiple points of consent** in the pre-production and production stages.
-  Consider **obtaining signed approvals** from the **documentary participant** when **creating the environment**. Implement these approvals **after each iteration**.
-  Utilise **virtual reality (VR)** for **environment viewings** to obtain more informed consent from the participant.
-  **Consider making the participant/s a key stakeholder** in the production. This means allowing them to make decisions with the director and producer.



Section 2: FAIR REPRESENTATION

Values in Action

Using **LED volumes** allows filmmakers to create, alter, and manipulate locations from a documentary participant's story. Ensure fair representation by **considering the following**:


➤ **How do you**, as a visual artist, VFX supervisor, filmmaker, or studio, **implement your personal biases and ideas in environment creation?** Throughout **every stage** of the environment creation process, **reflect** on **how your inner views, ideas, and biases are influencing the outcome** of this environment. **How could it be more accurate** in relation to the **participant's story?**

➤ Are you potentially **changing someone's view on history?** Consider the effect of creating inaccurate environments.

➤ Consider whether the environment is being created to look **artistically pleasing or accurately represent the actual setting**. How can you make it more accurate with the resources you have?

➤ Include a **pre-shoot fact check**, including your assets and their sources, the reasons for using them, and how they are being utilised, to improve accuracy. **Share this with the participants.**

➤ **Feelings are embedded in a location.** Reflect on a location that holds personal significance for you. How can you **ensure that the participant's feelings are embedded** in the **physical and virtual environments** you create in an LED volume studio? Ask the participant: What kind of emotions or feelings are associated with this specific setting for you?



Section 3: POWER

Values in Action

A **studio is a filmmaker's domain**. **Assess** your situation and your **ability to wield power over a participant** as an LED volume Studio or institution, and consider how you can **prioritise the participants' agency**.



Don't just assume participants are not overwhelmed; being in a studio can be quite daunting and stressful. Ask them.



Having a **welfare officer on set**, similar to an intimacy coordinator, can give the participant a sense of power. Someone who is **there for them only**. Make the **participant aware of this person before they are on set**. Consider also **involving people they know** to support them through the filmmaking process.



Equipment, lighting, people and shadows in the distance of an LED volume studio can **make a participant uncomfortable**. Run a **closed-off set** where possible. Keep the stage as a stage and allow the filmmakers and participants to have their **own space, a bubble**.



Consider utilising **parts of the screen not visible to the camera**, to **display** environments or **images** that are **comfortable for the participant**.

EXAMPLE:

Reducing Power

In a **documentary** intended to be entirely filmed in an LED Volume studio, the director sought to incorporate improvisation from the **participants in front of imagery** based on their **memories shown on the LED**. The participants were **child twins who arrived in Marseille by boat as immigrants** hoping for a **new life**. The director used an **acting coach** to support the participants in reenacting and **improvising scenes** that were memorable to them from their past. This was a potentially **sensitive topic**. The **LED volume studio understood this** and decided to **create a bubble** around the small crew and participants. This meant that they used a **closed-off set**, acting only as operators and, where possible, **remaining unseen** in a separate space **to the participants and crew for their privacy**.





Section 4: TRUST AND TRANSPARENCY

Values in Action


In an LED volume studio, it may be **more challenging to re-experience emotions compared to being on location**, and the **cold atmosphere** could create a sense of **detachment for the participant**. Having a **good connection** with your participant and **trust** from the beginning could **help with this**. **Another way** to establish a foundation of trust **is** through communication and **transparency**.



Be **transparent** with the participant regarding the **following questions: What are you making? What are you doing with their information? How will they be portrayed?**



Keep **a record of how the assets, environments, etc. were made** to share with the participant if they ask.



Conduct **LED volume workshops for your documentary participants** to ensure they **fully understand the process**. A **step-by-step introduction**. This will also **increase collaboration** and allow them to **ask informed questions** about the project and how their story is being utilised.



Suppose **you** want to **alter a virtual environment to be inaccurate**, perhaps for **clearances**. **Ask yourself, why** do I want to **change it? How will this impact the participant** whose story it is **and** their **surrounding community?**



Utilise **previsualisation (previs)** to **show the participant** what the **final film or shots** could potentially **look like**.

The use of an **LED volume** offers the **possibility of quickly changing environments**. This could be **triggering or harmful to participants or crew** if they are **unprepared**. Consider the following **strategies**:

1

Inform the participant of this possibility

Create a **content release highlighting all the environments** that will be **displayed** on the LED volume on the **day of shooting**.

2

3

Add the **environment changes** in a **call sheet**

Ask someone to **call out** when the **virtual environment** is **being changed**.

4

EXAMPLE:

Importance of Trust

A **feature-length documentary** titled **‘Right to Fight’** directed by Georgina Cammalleri, showcases the stories of **pioneers** in the **world of women’s boxing**. Demonstrating the hardships and abuse faced by these women and their resilience and achievements in shaping women’s boxing into what it is today. The documentary was **filmed predominantly on location**. However, they required some **pick-up interviews after filming**. Due to **budget constraints**, they were **unable to film on location again**, and it proved more **cost-effective** to bring **all of the participants into an LED volume** studio in New York than to fly to each individual's location. However, this was **not initially discussed as part of the filming process**. Therefore, they were **unsure if the participants would agree**. Fortunately, **they did**. **One participant mentioned** that the **extensive amount of time the filmmakers spent talking to them** at the start of the production process **helped them agree** to film with an LED volume. They also stated that **they had complete confidence in the director** with LED due to the **trust that had been built**.





Section 5: COLLABORATION

Values in Action

While **collaboration can be considered a strategy in multiple sections**, it is essential to also highlight it independently as a necessary **cornerstone in ethical filmmaking. Consider the following:**



➤ Collaboration can take multiple forms. Ask yourself: **are there more ways I could collaborate with the participant?**

➤ Rather than stating that collaboration cannot extend past pre-production or production, **look at ways to make it possible to collaborate further.**

➤ **Why do you want to use this technology?** To what end? How is it going to **help you to tell this story** in a way that perhaps **you couldn't tell it without the technology?** And **how are you going to incorporate the participants?** In the use of whatever techniques and approach you use.




Section 6: **RESPECT & WELL-BEING**


Values in Action

LED volumes for documentaries pose a **risk of harm if respect and well-being are not considered**. To improve the respect and well-being of participants and crew, **consider the following**:


- **Sound has been an issue** with many LED volumes. Can you invest in **portable sound barriers** or **improve** the room **acoustics** to **close off the space**, making it smaller and **reducing the feeling of a big, cold void**?
- Be aware that an **LED volume inherently brings other well-being considerations** when working with participants, crew and generally anyone on set. For example, an **LED volume can flicker** when it is turning on, which could be **potentially dangerous** for someone with **epilepsy**. **Factor this in, along with other potential unexpected risks**, when planning.
- Involve a **mental health professional in the production management team**.
- Provide a **dedicated room in the LED volume studio for your participant** to use during filming; this room should be accessible only to the participant and the individuals they choose.
- Enforce **regular 5-minute breaks** to allow everyone to recuperate, especially with sensitive topics.



Ask yourself the questions as an LED volume studio: **What would a virtual production world look like** if you wanted to make it **more intimate for documentary** filmmaking? How **can you retain the technology** but also **create something** that feels **a bit more low-key** and intimate? **How would you design it?**




Consider arranging **well-being training for the crew in an LED volume studio** to help them **handle sensitive content** and work effectively with contributors. If this **doesn't exist, advocate for the implementation** of an LED volume-specific training module.




Integrate a **2-minute visual cleansing of the palette for participants and crew**. Utilise the **LED volume to play calm music and videos before** starting **filming** for the documentary.



Triggering can always occur because it is not always possible to **be aware of what can trigger** someone. Do you have **protocols in place** to **minimise** the **need** for the **production crew** to have to **handle this?**



How can you use a **combination of digital techniques** to **ease a participant** into a sensitive or **triggering environment** both for **on-location and LED volume? Build them up** to being in the LED volume. Utilise techniques such as **previs, VR, computer screen viewings**, and the **LED volume without a crew**.



As an LED volume studio, DOP, lighting gaffer, etc., **do you use the phrase “that is the decision of the director or producer”** regarding **participant well-being? What else can you personally do** to **mitigate harm to participants and crew** in your studio and throughout all stages of production?

Improved Aspects of Respect & Well-Being through LED Volumes



While there are risks associated with using LED volumes, there are also **opportunities for improved respect and well-being when using them**. LED volumes are a **valuable tool in the filmmaker's toolbox**.

➤ **LED** offers the possibility of **quickly removing a participant from a triggering location** by **turning off the screen or leaving the studio** compared to being at the location itself.

➤ The ability to **control variables in an LED volume studio**, compared to on-location, means there is a **lower chance of excessive heat, retakes, sound disturbances, and other issues** that could make the participant uncomfortable.

➤ Utilising an LED volume in a documentary can potentially **reduce coercion** as participants are **even more aware that filming is happening, and LED requires more preparation. Consider how you**, as LED volume studios, filmmakers, and institutions, can **further reduce coercion** when using LED.

➤ Consider how you **reduce the chance of triggering** and harm by using **only a back wall** in an **LED volume compared to** going to a **location**.

EXAMPLE: Improved Well-Being

In the **feature-length documentary 'Right to Fight'**, one **participant felt more comfortable** in the **LED volume studio** than at the **actual location**. This was due to the **variables** in an **LED volume** being **more controlled and purpose-built for film-making**. At the **location**, there were **continuous retakes** of the **talking head interview** due to **interruptions** from the **air conditioning**, which would periodically turn on and off, and **outside traffic noise**. Not only that, but due to the **extreme heat** on the day of filming, the **crew had to keep reapplying makeup** to the participant because of sweating. Overall, the **participant found it very uncomfortable**. The participant found the **LED volume** to be **better by far**, stating that **even in the film**, they could **see a difference between the two locations**. They felt that the **interview, filmed in the LED volume studio**, was **more authentic to them**. This was because **their storytelling approach was "off the cuff"**, and due to the **reduced interruptions in the LED volume studio**, there were **fewer retakes**, unlike **on-location**, which caused those segments to feel **slightly rehearsed and rigid**. Additionally, in the **LED volume studio**, the **heat was controlled**, and the participant found it to be a significantly more comfortable environment.



Section 7: Accessibility

Values in Action

We must **avoid disempowering, marginalising, silencing or disregarding one or more social groups** due to budget constraints, logistical restrictions, etc. **LED can be a valuable tool** in ensuring **accessible filmmaking**.

- **Be aware** of any **casting biases** you may have. **How does** the option **LED** **open the doors for a wider accessibility of casting?**
- **Instead of thinking it's not possible** to tell this story. **Consider all of the options with your participant**, including LED. **Avoid excluding participants because of accessibility difficulties.**
- Consider how shooting in **LED can be a potentially better option for safeguarding** your participant and crew than going to a dangerous location.



EXAMPLES: Improved Accessibility

- 1** **'Awesome Animals and Mini Me'** is a fitness documentary series for kids, in which **children are placed in various locations** around the world using an LED volume, such as the **Sahara, Arctic, and mountainous areas**. Not only would it have been a **logistical**

nightmare to get the children to the actual locations and keep them safe, but some children also had accessibility requirements. They were able to put in **accommodations more easily** by using an **LED volume studio**. Furthermore, their **presenter had an afro**, which they stated would have been a **potential logistical and budget nightmare** if they had used a **green screen** due to the **rotoscoping** required. This was **not a problem in an LED volume**. Lastly, **certain neurodivergent communities** find **imaginative play impossible**. For some people, imagining and playing as if they were in the Sahara, but actually in a green screen studio, would be **impossible**. The use of an **LED volume**, which **allows for the 3D environments to be visible**, **dismantled this barrier**. It's essential to **consider how casting prejudice** can occur when using **green screens** and filming in general. To mitigate this, LED is a valuable option.

2

The filmmakers and LED volume studio wanted to tell the story of a **retired taxi driver who had gone blind**. To tell the story, they wanted **an actor who was also blind to play the taxi driver and drive the taxi**. However, **logistically, this was impossible on location**. The use of an **LED volume** allowed them to have a blind **taxi driver driving a taxi** in a **safe, controlled environment**.





Section 8: REALISM, IMMERSION & AUTHENTICITY

Values in Action

Participants in an **LED volume** may feel **less connected to their story** because they may **not have the authentic feeling associated with a real location**. A distorted background, cameras, lighting, and large crews of strangers may not be helpful in this regard. LED volume studios, filmmakers, and institutions should **consider how to enhance this realism, immersion, and authenticity**.

➤ **Physical sets and props are significant in immersing your actors and participants** in a true film or documentary.

Consider how you can **fit a floor into your budget, even** if you **don't always see it on camera**, because it can potentially make a significant difference in the immersion of your participants.

➤ Create **themes on set**; consider using **catering from the actual location** during the shoot or incorporating relevant **sounds in the moments when you are not filming**.

➤ Consider whether a **larger LED volume may enhance the participant's immersion**.

➤ As of 2025, the use of **photo plates remains the most believable** method of creating an environment compared to CGI or AI. Therefore, always **consider which method will look the most realistic for your participant and the camera**.

Sportspeople are most comfortable in the location where they train or play a sport. **One big association with a location is smell. Bring props into the studio that smell like the original location** to help **increase immersion and comfort**. This can also increase immersion for other types of participants.

The **game industry influences some VFX teams for LED**; always question yourself as a filmmaker, VFX supervisor, etc. **does this environment look like a game?**

EXAMPLE: Increased Realism

This **Biopic** was made using **LED volumes** to recreate the **shootings in Gaza** that caused Hind and their family to tragically die. To **recreate this inaccessible environment**, they utilised a variety of **archival images, Facebook pages, discussions with war survivors, and videos**. The team described it as being like a detective, trying to make the environment as accurate as possible. However, what **increased the realism** was **not only the virtual set** but the incorporation of the **physical set**. As shown in the **photo to the left** the production

designers incorporated **gravel and rubble into the flooring**, which covered almost the entire studio. This was included, even though it was **only visible in five shots**, because it increased immersion. **According to the actors and war survivors, it felt real**. The **intention** was that when actors, participants, or crew members **stopped for a break, they would still feel as if they were in Gaza**, having a drink with the gravel under their feet, **rather than in a studio**. Additional physical set pieces, such as a **destroyed car and a power mast**, contributed to this realism.





Section 9: COMMISSIONER & TECHNOLOGY CHALLENGES

Values in Action for Commissioner Challenges

Often decisions are removed from the hands of **filmmakers and LED volume studios due to commissioners**. They may not see why safeguarding is important, as they are **focused on budgets, revenue, viewing numbers, etc.** These are **steps commissioners should take and strategies for filmmakers and LED volume studios** to implement:



Make **well-being more attractive to commissioners** by using badges. **Involvement with companies such as the Documentary Participant Empowerment Alliance (DPEA)**, which advocates for participants, is recommended. Endeavour to have **a stamp on your film, showing the audience** that they can **trust the film's participants were treated ethically and with care.**



Get your **commissioners to understand** how **welfare approaches can excite the participant and improve the end product**



Use previous shoots as examples to commissioners of when something went wrong or what could be improved.



Encourage commissioners to implement **a part of the budget for well-being** that cannot be touched.

EXAMPLES:

Commissioner Challenges

1 In a **short set of documentaries** commissioned by a country's government, the **filmmaker and LED volume studio** sought to have **participants share their stories of workplace abuse** in front of an LED volume. They **emphasised key elements of the story on the screen** through visuals and lighting. They also incorporated the **use of projections to add depth** and layering to the visuals. This **story** would be **told to random people** found on an acting site. **These individuals** were asked to **respond to the story** and visuals by **posing questions** to the participants **on camera**. However, the **commissioner, due to budget and time** constraints, **refused to allow the participants to tell their own stories** and instead **requested that actors do it**. They **believed** that the **participants would be unable** to tell their story on the shooting day due to emotional pressure, **despite the majority of participants having agreed and wanted to** do so. The **LED volume studio and filmmaker** felt that **this** was **wrong** and that through this decision, a **sense of realism was lost**. The **individuals** were **asking questions to actors** who only **knew a small part of the story**. **After filmmaking**, the **commissioner agreed** that **something was lost** through using actors. The **LED volume studio** proceeded to state that **in the future, they would use this example with other commissioners** to avoid it happening again.

2 A filmmaker was in the **final stages of getting a documentary greenlit** when the **commissioner expressed doubt** about **how the participant would react on camera**, given that they would be in **a different country**. Therefore, the filmmaker **utilised an LED volume** to formulate a **form of observational documentary pilot**. In this pilot, the **participant (a kickboxer) and their family stepped out of a car** onto an **LED volume** stage surrounded by **images from Japan**. The filmmakers **rolled the cameras the entire time** to **capture the reactions** and **showcase to the commissioner** that the participant was able to handle the process. This was a **clever way to bypass a commissioners hurdle**.

Values in Action for Technology Challenges

LED is a new technology, and with most new technologies come **new challenges** and **additional considerations**.

Always consider how a **specific technology can impact participants and crew**.

Always **stay informed** about developing technology to **provide the safest and best options** to honour a participant's story.

Stepping out of a comfort zone can be **difficult for filmmakers** who are **new to a technology**; with the **fear of failure**, consider **how** you, as a **LED volume studio**, can **support** filmmakers to **fail forward**. Studios should allow filmmakers and participants **a play day to test the technology**.

Keep the **camera rolling** for **5–10 seconds at the start and end of an interview** on location, making sure **no one is in the shot and the camera is still**. These are to be used for **plates** in an **LED volume** if **pick-up interviews are required**.



Credits and Contributors

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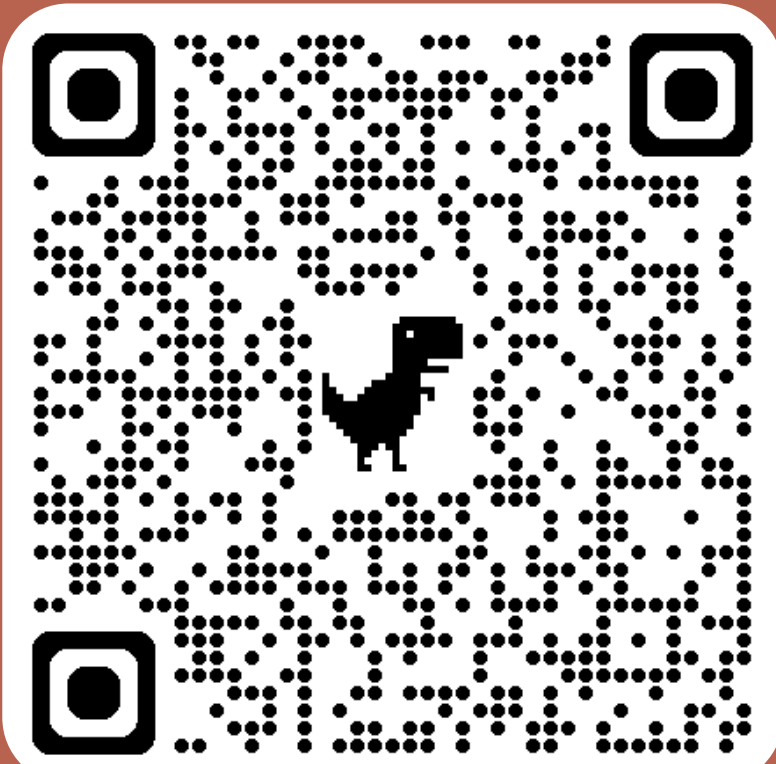
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VPSN Website: Latest Guidelines PDF

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