



Stream like a pro

Expert tips for
every stage of your
streaming journey

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INTRODUCTION

Welcome to the future!



Over the past few years, the popularity of livestreaming has exploded, with more and more people turning to this medium to share their experiences, connect with audiences, and build communities in real-time, over the internet.

Whether you're a content creator, business owner, news or sports broadcaster, seeking to stream a religious service, or simply a fan of livestreaming, this guide is designed to give you an **overview of the technology that powers this phenomenon**. From the basics of how livestreaming works to the latest advancements in the field, we'll explore everything you need to know to understand this exciting and rapidly evolving technology.

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THE BASICS

What is livestreaming?

Livestreaming is the real-time transmission of audio and video content over the internet, enabling audiences to engage with events as they unfold. Unlike pre-recorded media, livestreaming delivers experiences instantly, fostering immediacy and interaction. This technology has evolved to serve a wide range of applications, including entertainment events, sports, news, education, corporate communications, and more.

The growing accessibility of high-speed internet, the proliferation of social media platforms, and advancements in live production tools have transformed not only how we consume content but also how creators and organizations connect with their audiences. Livestreaming has become an essential medium for anyone looking to share impactful stories, build communities, and drive engagement, no matter the scale or focus.

From casual streamers experimenting with basic setups to pro streamers producing dynamic broadcasts with distinctive content, livestreaming caters to a variety of creators. Business streamers rely on robust solutions for internal communications and global events, while mainstream broadcasters deliver polished, large-scale productions that anchor the industry.

Whether it's a small team broadcasting from a single room or a media conglomerate with studios around the globe, the world of livestreaming is an ecosystem of innovation. It thrives on the ability to adapt, engage, and connect, making it one of the most exciting and impactful forms of media today.



On average, consumers are clocking in about 1 hour and 22 minutes daily on streaming services

Source: GWI

CASUAL STREAMERS

Anyone can do it, including you!

Casual streamers represent the starting point of a creative journey into the world of livestreaming. These individuals are often exploring the concept of broadcasting, going live through popular social media channels. While their goal may be to evolve into established brands, they typically operate within tighter budget constraints. Their early investments are modest, often relying on the incredible power of their daily smartphones, which have become surprisingly capable tools for content creation. As their experience and audience grow, many begin to explore more advanced tools like online switchers to enhance their productions.

This is where Vizrt's **TriCaster Mini S** becomes a game-changer. Designed with accessibility and adaptability in mind, the Mini S offers casual streamers a seamless entry into professional-level production. The unique approach of the Mini S allows users to leverage their existing hardware, making it an excellent cost-effective solution for beginners. Vizrt takes responsibility for the software, ensuring a highly intuitive and reliable experience.

What sets the TriCaster Mini S apart is its ability to grow with the user. It provides a straightforward path for those just starting, while maintaining the same core functionality found across the entire TriCaster lineup. This means that as streamers gain confidence, skill, and ultimately expand their operations, they can easily transition to more advanced models within the TriCaster family without needing to start from scratch. It's not just a powerful tool; it's a companion for streamers ready to take their first step toward professional storytelling.

EVOLVING STREAMERS

Lights on, cameras on, streaming on!

Evolving streamers are those who've taken their first major steps toward professionalism. They may not have fully mastered the craft yet, but they've invested in their passion and are building a solid foundation for growth. This group often includes creators with a multicamera setup, a dedicated studio space, and perhaps even a small team to support their productions. They're serious about leveling up their content and are exploring tools that can take their broadcasts to the next level.

Evolving streamers aren't limited to individual creators. This category also includes organizations like university sports teams streaming live games, campus-based talk shows featuring lectures and guest speakers, and even houses of worship that livestream services to connect their communities. For example, local churches use streaming to reach members who can't attend in person, while college football teams may livestream games to keep remote fans engaged.

For streamers in this phase, Vizrt offers the TriCaster TC410+, a comprehensive and accessible solution designed to cater to a wide range of needs. With its ability to handle 8 live video inputs and its native integration with platforms like Teams and Zoom, the **TriCaster TC410+** empowers users to manage professional-grade productions with ease. Whether it's a sports broadcast, a lecture series, or a weekly service, this robust tool allows creators to be prepared for any event in just minutes.

But the features don't stop there. The TriCaster TC410+ also provides advanced graphics capabilities, unlocking opportunities for creators to add polished visual elements to their streams. This is especially valuable for those looking to monetize their content. For instance, a house of worship could

use on-screen graphics to encourage charitable donations during a service, or a college football team could showcase sponsor logos to maximize partnerships. With the TriCaster TC410+, evolving streamers gain the flexibility and power to elevate their productions while staying true to their unique storytelling goals.



We would not have been able to produce this kind of high-level, award-winning content without the new facilities, and the **TriCaster** is a vital part of that set-up. The feedback about the **TC1** and the **TriCaster Mini 4K** has been great too, with students finding it easy to get to grips with the technology and start to achieve good results very quickly. TriCaster has been a major boost to our production capabilities.

Sophie Jolly
Lecturer and Bootcamp Manager
Stratford Upon Avon College

BUSINESS STREAMERS

Efficient, reliable; and they mean business!

Business streamers are organizations that harness the power of streaming to optimize communication across multiple locations. These include mid-sized to large-scale enterprises with offices in various cities, leveraging streaming not for external broadcasting but as a tool to enhance internal connectivity. Within these organizations, dedicated professionals often manage fully equipped studios designed to produce high-quality content tailored to their needs.

These studios serve a diverse range of purposes, from hosting company town halls and internal announcements to featuring corporate guest speakers. Forward-thinking businesses are taking their operations even further, utilizing the same studio spaces to create dynamic social media content. This dual-purpose approach not only maximizes their investment but also showcases the versatility of a well-equipped studio.



Given the scale and stakes involved, business streamers require setups that are both robust and reliable. The reputation of the organization often rests on the seamless execution of these events. Typically, businesses begin with a centralized studio in their headquarters before expanding to other office locations, ensuring consistency in quality and experience across all sites.

To meet the unique needs of such enterprises, Vizrt offers the **TriCaster Vectar**, an innovative cloud-based production solution. Its cloud-native architecture simplifies deployment

by eliminating the need for extensive hardware investments. The Vectar's adaptability is a key reason why it's become the go-to choice for many organizations. With support for up to 44 external NDI sources and 16 simultaneous outputs, it's perfectly suited to handling the complex demands of large-scale corporate events.



98%

of enterprises now incorporate live video streaming for key events, such as major corporate announcements, product launches, customer conferences, investor calls, or employee town halls

Source: Rise and Rise of Video and Live Streaming in the Enterprise

One standout feature of the TriCaster Vectar is Live Call Connect, allowing businesses to seamlessly integrate remote contributors from platforms like Zoom or Teams into their productions. The flexibility of the software ensures that the focus remains on delivering exceptional content, regardless of the physical location of the production. Even better, the modular design of the Vectar allows organizations to expand its capabilities by integrating tools like **Viz Trio** for graphics, **Viz Engine** for real-time rendering, and **Viz Mosart** for automation.

With TriCaster Vectar, enterprises can create sophisticated, professional-grade productions that enhance their internal and external communications. It's a dependable foundation for organizations aiming to reinforce their reputation, engage their workforce, and make a lasting impact on both employees and the competition.

PRO STREAMERS

The new leaders of the streaming world!

Pro streamers represent a new and dynamic category in the world of livestreaming. Over the last decade, these individual creators have emerged as formidable forces in digital media, rivaling established broadcasters in their ability to deliver innovative, high-engagement content. While these creators started small, they've built their own brands, attracting loyal audiences spanning the globe. Their fans are not just viewers; they're deeply engaged communities who tune in consistently, often every day, to experience high-quality, authentic, and interactive content.

The scale at which pro streamers operate is nothing short of remarkable. Many follow strict schedules, broadcasting live daily to cater to their devoted fanbase. They've built teams from the

ground up, often working with collaborators who share their passion. Their content is as diverse as it is unique, ranging from game and tech reviews to life vlogs and event documentation. With their success, ad revenue, brand deals, and sponsorships, they've invested heavily in creating fully equipped studios that rival professional production setups. Multiple cameras, state-of-the-art equipment, and a strong emphasis on stunning, interactive graphics define the pro streamer workflow, enabling them to consistently deliver captivating and premium content.

To support creators at this level, Vizrt offers the cutting-edge **TriCaster Vizion**, a solution tailored to meet the ambitious demands of pro streamers. With the ability to handle 44 live inputs, 12G connectivity, and 16 SDI inputs/outputs, the TriCaster Vizion is designed for high-performance streaming. Additional capabilities, such as 4 media players and the Live Call Connect feature, allow for seamless integration of remote contributors and content sources from platforms like Zoom or Teams. Pro streamers can also leverage **Viz Flowics** to enhance their content with premium live graphics directly from the cloud. Its browser-based workflow makes it exceptionally easy to design, manage, and incorporate graphics into their streams, providing a smooth and intuitive experience.

Graphics play a crucial role at the pro streamer level. They're not just decorative but integral tools for viewer interaction, live chats, advertising partnerships, and brand promotion. These streamers often use graphics to launch products, interact with their audiences, and scale their reach effortlessly. Vizrt's **Viz Engine 5** offers unparalleled support in this respect, bringing innovation to their productions with features like Reality Connect and Unreal Engine 5 integration. These tools transport viewers into immersive virtual environments, enhancing the storytelling and elevating the overall experience.



47%

of users who streamed video content managed to earn some form of revenue from their live content (as of March 2024)

Source: survey conducted for US consumers

MAINSTREAMERS

The OG broadcasters, they laid the foundation for all of us!

Mainstream-ers stand as the pinnacle of the streaming world, commanding unparalleled reach, influence, and industry-defining power. These are the titans of broadcasting, often shaping the future of an entire industry through their sheer scale and innovation. While they now face growing competition from the rising wave of pro streamers, their legacy of adaptability and evolution has kept them at the forefront for generations. Most of these organizations started as family-owned ventures but have since grown into global media conglomerates, with a major presence in developed countries and an expanding footprint in emerging markets.



We are the only media company in the region using high-end production tools like Viz XR for digital-first storytelling. This is the future. You only have three seconds to grab someone's attention, and you need to give them something that resonates.

Fadi Radi
Chief Creative Officer, blinx



75%

of consumers aren't even thinking about canceling their TV subscriptions

Source: GWI

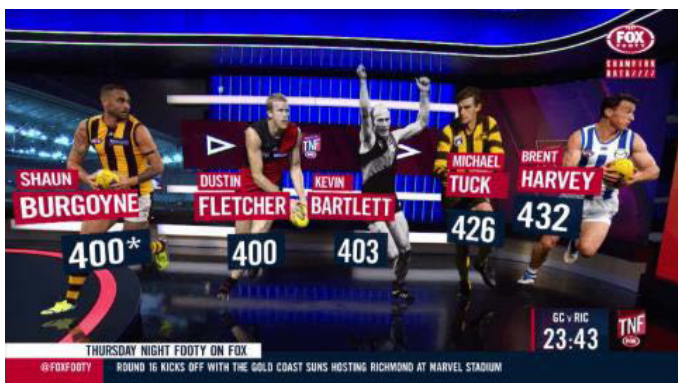
The scale of Mainstream-ers is unmatched across any category. Streaming is not just a part of their operation; it is their business. Their investment in state-of-the-art studios reflects the centrality of their craft, with multiple camera setups, studio locations worldwide, and crews numbering in the hundreds. Because the quality of their service directly impacts their bottom line, they rely on tools that set industry standards for reliability, flexibility, and technological excellence. Historically focused on sports and news, these broadcasters have expanded into diverse avenues like music events, movies, TV shows, and on-demand content, showcasing their ability to innovate alongside the industry's evolution.

A trusted partner on this path of relentless innovation has been Vizrt's TriCaster, a product line that has redefined how broadcasters create and distribute content for over two decades. From its inception to its most recent advancements, the TriCaster family of products has consistently evolved to meet the complex demands of Mainstream-ers. Features like Live Call Connect allow seamless integration of remote contributors, a vital feature as organizations manage global production teams. Vizrt's ongoing commitment to addressing core broadcaster needs has also led to unparalleled support for NDI devices, ensuring low-latency, high-efficiency video tailored for large-scale operations.



The rapid integration of AI into broadcasting has been another game-changer for Mainstream-ers, and Vizrt has stayed ahead of the curve with features like gaze correction and an AI Keyer. These cutting-edge tools deliver unmatched production quality, saving broadcasters valuable time during live events. Viz Flowics, an adaptable HTML5 graphics solution, has further proven indispensable, especially under tight deadlines. Its compatibility with over 80 data providers means broadcasters can easily integrate and adapt graphics to meet the high expectations of audiences around the world.

By leveraging a combination of Vizrt's TriCaster technology, Viz Flowics graphics solutions, and **PTZ3 Plus Cameras**, Mainstream-ers continue to push boundaries, challenge norms, and redefine what's possible in broadcasting. Whether through dynamic live productions, innovative uses of AI, or cutting-edge camera setups, these industry trailblazers set the standard for excellence, inspiring organizations and audiences alike.



Mainstream-ers also lead in their use of professional-grade cameras, and Vizrt's PTZ3 Plus Cameras have become essential to their setups. Featuring advanced capabilities like AI presenter tracking, NDI | HX3 output, embedded FreeD tracking, and intuitive control from a centralized panel, these cameras are built to deliver broadcast-quality video. PTZ3 Plus Cameras exemplify the precision and versatility required for Mainstream-ers to scale their productions while maintaining flawless execution.



The challenge has been – how do we make the product more entertaining? And so going deeper with the statistics in basketball, trying to find more interesting ways to show them, these are all things we targeted as goals and things that we could do to make it more entertaining for our fans. And so that's what we've been trying to do. And Vizrt has been a big partner, giving us the tools to try and do those things.

John McConnell
Product Manager
Portland Trail Blazer

OUR TECH

Why TriCaster?

The TriCaster is one of the most trusted and reliable multi-camera video production systems designed specifically for live production. Here are some reasons why a TriCaster can be a good choice for live production.

01

All-in-one solution

A TriCaster is an all-in-one solution that combines the functions of a video switcher, graphics generator, video recorder, and streaming encoder into a single device. This makes it a very convenient and efficient solution for live production, as it eliminates the need for multiple pieces of hardware and software.

02

High-quality output

TriCasters are capable of producing high-quality video output, with support for multiple HD and 4K video inputs, and a variety of video output formats. This ensures that the production looks professional and polished, even when streamed online or viewed on large screens.

03

Easy to use

TriCasters are designed to be user-friendly, with an intuitive interface and easy-to-use controls. This makes it easy for operators to switch between cameras, add graphics, and control other aspects of the production, even under pressure and in fast-paced live environments.

04

Customizable

TriCasters are highly customizable, with the ability to add and customize graphics, animations, and transitions, and even create custom macros to automate common tasks. This allows operators to create a unique and engaging production that stands out from the crowd. Overall, a TriCaster is the top choice for any live production because of its all-in-one solution, ease of use, high-quality output, and customizable features. It can save time and effort in setting up a live production and can produce professional results for any livestream.

OUR TECH

TriCaster for the Industry



Sports

Sports broadcasting takes livestreaming to the next level, bringing the excitement of the game from the field right to viewers' screens, whether at the high school, college, or professional level. Unlike indoor events, sports coverage must adapt to fast-paced action and diverse environments, all while rising to the growing expectations of live audiences who crave real-time performance updates and immersive experiences. That's where the TriCaster Vizion truly shines, seamlessly integrating with Viz Flowics to deliver gamechanging live data graphics. Thanks to its no-code Data Connectors, sports broadcasters can effortlessly push live stats directly from a web browser, enhancing every moment for the audience.

TriCaster Vizion also supports 10-bit SDR/HDR workflows, ensuring every goal, tackle, or triumph is captured with stunning clarity and richness. With the ability to handle 44 live inputs alongside features like Live Call Connect, it provides unmatched flexibility for even the most intricate broadcast setups. Complementing this powerhouse switcher is the Vizrt PTZ3 UHD Plus camera, designed with a 30x zoom and 4K 60p resolution to flawlessly capture the speed and precision of athletes in motion. Together, these tools empower sports broadcasters to deliver exceptional live productions that keep audiences engaged and on the edge of their seats.

Broadcast

Broadcast livestreaming demands unparalleled versatility, as it must be ready to accommodate a wide variety of production needs at any time. While features like Live Call Connect and Live Story Creator remain indispensable, broadcasters often require even greater flexibility to truly customize their streams. The TriCaster Vizion delivers this with its impressive 44 simultaneous

external video inputs and up to 16 configurable SDI inputs/outputs, allowing seamless integration of multiple sources. With the ability to import custom motion graphics, broadcasters can craft tailored, professional-grade streams that stand out.

To simplify operations, Vizrt offers powerful control surfaces like the TriCaster Flex and Flex Dual panels. These tactile controls bring a level of precision and responsiveness to live broadcasts, enabling quick, intuitive adjustments to meet the dynamic demands of production. Furthermore, broadcast setups benefit greatly from the adaptability of Vizrt's PTZ3 Plus and **PTZ3 UHD Plus** cameras, which work seamlessly with NDI technology.

This technology expands creative possibilities by transforming third-party cameras into NDI compatible sources and leveraging tools like the NDI|HX Camera Application for Android and iOS. Whether using a smartphone, tablet, or network-connected camera, broadcasters have the freedom to deliver top-tier streams from virtually anywhere. Together, these technologies empower broadcasters with the tools they need to create captivating live productions with ease.

Corporate

Corporate livestreams span from simple presentations to intricate productions, and the TriCaster systems deliver the flexibility and features needed at every level. Whether you're just starting or are well-versed in streaming, the TriCaster Vizion brings powerful tools to enhance your production. Features like Live Call Connect enable seamless integration of virtual guests from platforms such as Microsoft Teams, Zoom, Facebook Live, Discord, and Slack, allowing you to mix and match callers for truly dynamic conversations. This ensures your livestream can bring in diverse voices and perspectives, elevating the quality of each event.

Audio is another essential component, and the **Viz Connect Audio** has set a new standard as the first dedicated NDI Audio device on the market, catering to all formats while offering precise visibility and control of audio sources. For capturing outstanding visuals, Vizrt's PTZ3 UHD Plus and PTZ3 Plus cameras are ideal. The PTZ3 UHD Plus excels with stunning 4K 60p video, professional XLR audio inputs, and smooth, automated movements, while the PTZ3 Plus offers full HD at 1080p 60fps. Both pair seamlessly with the TriCaster Vizion to deliver exceptional quality. To tie it all together, the **TriCaster Flex Dual** control surface allows for tactile video and audio mixing, precise PTZ control, and operator talkback, streamlining workflows and ensuring flawless corporate productions.



Education

Educational livestreaming thrives on flexibility and innovation, making the TriCaster range - from the compact yet powerful TriCaster Mini S to the robust TriCaster Vizion - an ideal solution for schools and universities. With features like Live Call Connect, educators can create dynamic, interactive streams that keep audiences engaged, while Live Story Creator simplifies production, offering students a hands-on way to learn streaming workflows with ease.

Elevating these productions further, NDI-connected PTZ cameras such as the Vizrt PTZ3 UHD Plus and PTZ3 Plus provide high-quality visuals, while Viz Flowics brings unparalleled simplicity and creativity to graphics generation. Its intuitive no-code generators empower students and educators alike to craft engaging visuals directly from a web browser, sparking creativity and introducing young minds to professional broadcasting tools. For audio, the Viz Connect Audio device ensures seamless, high-quality integration of analog mic or line-level inputs into NDI networks, allowing full control and monitoring for consistent results. Together, these tools equip educators with everything they need to produce professional, engaging livestreams that inspire and inform.

Government

Government and community media outreach plays a vital role in building trust, fostering transparency, and encouraging active citizen participation. To meet the growing demand for accessible and engaging communication, Vizrt's innovative solutions, including TriCaster systems, Viz Flowics, and PTZ cameras, offer administrations the tools they need to connect with their communities effectively and efficiently.

Lead community involvement with high-quality, broadcast-style coverage using the TriCaster Vizion. From legislative sessions to local events, its advanced features, such as Live Call Connect and 44 live inputs, allow for seamless integration of live interviews, presentations, and community submissions, ensuring inclusivity and engagement.

Prepare for emergencies with portable, professional streaming equipment like the TriCaster Mini S, requiring minimal setup and technical expertise. With PTZ cameras such as the Vizrt PTZ3 UHD Plus, which offers sharp 4K 60p video capture and smooth automated movements, agencies can deliver real-time updates with clarity and professionalism from any location. Utilizing NDI connectivity, multiple camera inputs can be managed effortlessly to keep citizens informed during critical situations.

Control the narrative with Viz Flowics, allowing administrators to create dynamic graphics and overlays directly from a web browser using its no-code generators. This tool enables you to combine live data, text, and video clips in a visually compelling format to reinforce public announcements and initiatives with clarity and consistency.

House of Worship

With an increasing demand for accessible worship services no



matter where a congregation wants to tune in from, house of worship livestreaming continues to improve and expand. Like other forms of streaming, houses of worship benefit from the flexibility and automation that the TriCaster systems provide. For instance, the TriCaster Mini S and Mini 4K are both highly accessible streaming systems that deliver everything you need to get started in a compact, portable package. TriCaster Mini systems are perfect for small town churches that need a simple way to reach their parishioners.

For more sophisticated multi camera productions, the TriCaster Vector & Vizion offer more functionality with additional inputs and features. When it comes to control surfaces for house of worship livestreams, the TriCaster Flex is a great option. It's also compatible with every TriCaster in the lineup, making it a good investment, even if you plan to upgrade your TriCaster system in the future. To complete the setup, the Vizrt PTZ3 UHD Plus and PTZ3 Plus, along with other NDI-enabled inputs, allow for dynamic live productions, even when staff and resources are in short supply.



About Vizrt

Founded in 1997, Vizrt is a leading viewer engagement platform and a trusted expert in live production technologies for the Media & Entertainment, Sports, Enterprise, and Content Creator industries.

Vizrt's software-defined, cloud-ready and AI-integrated solutions are the foundation for a new era of storytelling, enabling creators to streamline workflows and enhance content delivery. It offers solutions for every component of live production, from real-time data-driven graphics and studio automation to intelligent media asset management and cloud-based productions.

Vizrt, and its subsidiary NDI, employs over 600 people globally, enabling thousands of organizations worldwide, from colleges and corporates to the largest names in news and sports, to deliver visually immersive experiences to billions of people daily. For more information, visit vizrt.com

