

mixer



# ***GAME DESIGN WITH MIXER***

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This first edition available in digital PDF form or print from the Mixer team at Microsoft.

The Mixer user guide can be found at:

<https://aka.ms/mixerinfo>

Mixer developer documentation can be found at:

<https://aka.ms/mixerinfo>

You can email the Mixer team at:

[mixerdevinfo@microsoft.com](mailto:mixerdevinfo@microsoft.com)

# INTRODUCTION

One of the joys of game design is the speed at which new ideas appear.

In recent years new technology has enabled players to broadcast themselves playing games with services like [www.mixer.com](http://www.mixer.com). Now this feature is built directly into desktop, console, and smartphone operating systems.

Across the globe streamers are playing games in live broadcasts while talking with viewers, who respond immediately in text chat. A whole new profession has emerged with full time streamers earning money from subscribers.

The latest innovation is viewers interacting directly with the game being broadcast. This has opened the door to a new paradigm in game design, which we'll explore in the following pages.

# WHAT IS MIXER?

Mixer is a game streaming service focused on empowering creators, streamers and game developers everywhere to connect with their audience and grow meaningful communities.

## Low-Latency Streaming

While traditional streaming platforms have 2-5 seconds of delay, Mixer delivers chat and in-game interactions in near real time<sup>1</sup>.

## Interactive

Play is the heart and soul of Mixer. Viewers can play an active role in streams, allowing for interactions with streamers beyond chat. With simple sound and video effects or deep experiences like controlling gameplay, streamers and viewers can create epic moments together. Developers can enable these experiences by

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<sup>1</sup>[sub-second latency]

leveraging the Mixer tools and SDK.

Streamers are now some of your most powerful salespeople. Interactive experiences turn viewers into players (think of them as player 0.5), and provide streamers with a way to engage in meaningful interactions with their community.

## **Sparks**

Users earn Sparks by watching<sup>2</sup> and spend them on interactions that make content more engaging and fun.

## **Cross Platform**

Mixer is platform independent. Our streamers and viewers are not limited to Microsoft platforms.

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<sup>2</sup> By default, viewers earn two Sparks per minute watched. Mixer Pro users and channel subscribers earn double that amount.

## **Co-Streaming**

Mixer streamers can play together with up to four streams showing side-by-side and a combined chat experience. Streams can show different players in a game, entirely different games or even a mix of game and real life (IRL) streams.

## **Find Your Audience**

With Mixer game creators can attract, engage, and retain streamers, viewers, and players to achieve their social and community goals.

# ***DESIGN PRINCIPLES***

## **Viewer Attribution**

Celebrate viewer interactions.

Example: “Mark, a Mixer viewer, gave you ammo!”.

Viewers love to be thanked by their favorite celebrity streamer.

## **Balance is Key**

If interactivity creates too hard a scenario for the streamer, they're likely to turn it off. Cooldowns and Sparks should be used to balance the experience. (It's also possible to offer streamers different types of interactive scenarios so they can choose the best fit for their own enjoyment and community.)

## **Better Together**

Our individual and collective experiences are better because of our interactions.

Streamers bring their community with them, and build communities around games. Consider giving them rewards like bonus XP multipliers for streaming or attaining high viewer counts.

Similarly, reward viewers for showing up, watching and being part of an experience. Consider special rewards for viewers who witness (or assist) a streamer completing a difficult challenge. Not all viewers are pro gamers, but they can still take part and be rewarded.

## **Design for Scale**

Mixer Interactivity should be fun whether there's one person watching or thousands.

## **Create Replay Loops**

Create game loops via Mixer Interactivity and progression so that streamers and viewers can continually engage with content.



# ***NEW KINDS OF GAME***

Interactive streaming blurs the lines between playing, acting, watching, and talking.

## **Streamer Meta-Games**

Some streamers build their own metagame experiences that run alongside the content they stream (either via chat or Mixer Interactive).

## **Augmented Videogames**

Traditional videogames can be augmented with interactive streaming features. This can be done by the game developer or through “modding” by a third-party streamer.

## **Stream-First Games**

There are games that exist publicly only as a stream. Some have a streamer presenting at scheduled time slots like a TV gameshow, and others simply run on a server (like websites).

This type of game may completely avoid going through a certification or ratings process. [Although there is nothing stopping such a game from also shipping as a standalone store download or boxed product.]

## Viewer Roles

Viewers have taken on new roles as Community Members, Students, Helpers, and Players (and often mixing these roles together in the same session). We'll examine each in turn, and look at what game mechanics suit them best.

Community members spectate together and can band together to solve hard problems and earn rewards.

Students watch streams to learn. They might want to learn how to get better at a game, or an IRL ["In Real Life"] skill like programming or painting.

Helpers enjoy assisting or 'challenging' a streamer who is playing a game. Either way they help the streamer have fun, and love nothing more than being publicly recognized for their efforts.

So far there are relatively few experiences for true stream Players, and this is the area where we expect to see the most innovation<sup>3</sup>.

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<sup>3</sup>We are interested in partnering with developers in this space so please reach out to [mixerdevinfo@microsoft.com](mailto:mixerdevinfo@microsoft.com) if you have ideas to pitch!

# COMMUNITY MECHANICS

*Mixer is intended to be a safe and fun community for streamers and viewers. Please be considerate of others, do not be a jerk, and do not do things that are illegal or dangerous. We care about you!*

- Mixer Rules of User Conduct

Building positive communities is a cornerstone of the Mixer experience, and we're constantly creating and evaluating new functionality in support of this.

## Evolving Text Chat

Text chat is a simple way for viewers to communicate (and issue commands), but it comes with limitations.

In a busy chat text quickly scrolls off screen. Streamers can miss viewer sentiment cues and important comments. Despite the best efforts of human and AI moderators, trolls can lower the tone or ruin an experience for a player or streamer.

What if viewers could react to what's happening in a different way?

Already streamers on Mixer set up 'soundboard' buttons that players can press to play special audio or video clips over a stream. To prevent spamming, buttons come with a cooldown timer or Spark cost<sup>4</sup>. (On Mixer, viewers earn Sparks by watching content. These can be spent on interactions.)

An evolution of this mechanic is for the games themselves to support viewer reactions and incorporate them into gameplay. For example, perhaps in a sports game when enough viewers cheer, the virtual crowd also begins to cheer. Going even further, perhaps the cheering has a morale effect on the AI team members, giving them a stamina bonus that can tip the odds.

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<sup>4</sup>We often get asked how many Sparks a button action should cost: A usual range is 100 to 1,000 Sparks per action, as most players have fewer than 1,000. (Charge more for epic moments.) We also strongly recommend using cooldown timers to prevent overuse.

When the only possible interaction is positive, viewers are more likely to work together and enjoy the experience.

## Play to Win

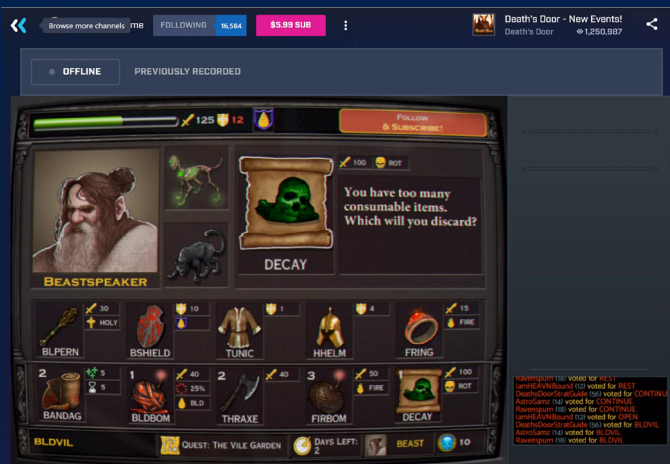
Already viewers show their appreciation of streamers with the Follow and Subscribe buttons. What if those actions also impacted prize pools or gameplay?

For example, in the Stream-First RPG Death's Door<sup>5</sup>, the streamer is the game itself. Actions like Follow, Donate<sup>6</sup> and Subscribe give the viewers XP boosters and coins to spend on in-game items. Viewers work together to defeat the game, and every contribution helps to achieve that communal goal.

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<sup>5</sup> Created by developer Shiny Shoe.

<sup>6</sup> Death's Door donations are supported by linking to an external donation website.



Death's Door highlights the names of Mixer players who contribute to the experience. Everyone who takes part has their name displayed in the window at the bottom right of the screen for all to see. Viewers love recognition.

Of course, Death's Door style experiences could also have a celebrity Streamer acting as a "dungeon master" who narrates the experience and calls out players by name.

## Rewards

Another way to build positive communities is to reward players and viewers for being together.

Even players in a multiplayer game who aren't streaming could be rewarded by Mixer viewers, when a special event happens, or simply because they find themselves in a game session with a popular streamer. In this way streaming can make a game better for everyone, games can make streamers more popular (and vice-versa).

Rewards<sup>7</sup> can be Achievements, virtual items, virtual currency, tournament entry tickets, games, downloadable content and even real-world prizes.

When everyone feels good about an experience, they are much less likely to turn into trolls.

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<sup>7</sup>The Mixer moderator command `/giveaway` can be used to distribute a reward at random See <https://aka.ms/mixerchatcommands> for more information.



## Soliciting Feedback

On the subject of trolls, it can be painful to log into a stream of a game you created to witness a pile-on of criticism.

Wouldn't it be better to let viewers send feedback directly to the game creator? As a player, just knowing the developer has heard your feedback can make you more positive about a game.

Feedback can be solicited through chat polls<sup>B</sup>, interactive rating buttons (e.g. “rate this level”), email and social media links.

## Companion Experiences

Player time with a controller in-hand is limited. Create companion experiences for your games with Mixer and players can earn rewards for your games while watching and interacting on their commute or lunch break!

<sup>B</sup> See <https://aka.ms/mixerchatpoll>

# ***STUDENT MECHANICS***

## Learn from the Best Players

Many viewers watch streams because they want to learn how to get better at playing a game.

Often in a professional e-sport broadcast bespoke tools showcase gameplay from different angles and player viewpoints, announcers drill down into player stats and inventories, and the positions of all players can be seen on an overhead map.

What if these features were always available when watching your favorite game? What if an AI announcer directed the action? What if you could view stat cards, see player loadouts, inspect kill heat maps, trigger replays or download a game's state and try for yourself from that exact moment?

## **Hype Zone**

When big events aren't happening, how do viewers find the most exciting game moments to learn from?

Mixer recently launched HypeZone, a new type of channel that uses machine learning to find the most exciting matches happening at that moment in games like Player Unknown's Battlegrounds and Epic's Fortnite. When a player is close to winning they may suddenly find themselves in the HypeZone with thousands of new viewers cheering them on.

What's next for HypeZone? Will we start to see cross game HypeZone channels? Will the audience add their own "Hype" through interactivity? Will we see HypeZone tournaments and prizes?



# HELPER MECHANICS

“Thanks for the Assist!”

Many Mixer Interactive games offer ways for viewers to help or hinder a streamer. In Hello Neighbor<sup>9</sup>, for instance, viewers can pay Sparks to “Kick the Neighbor” (which helps the streamer by slowing him down), or “Notify the Neighbor” (which gives away the streamer’s position).



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<sup>9</sup> Hello Neighbor was developed by Dynamic Pixels and published by tinyBuild.

In general, we recommend focusing on creating a positive experience where players help the streamer succeed, a competitive experience where players are divided into teams and compete against each other, or a balanced “dungeon master” experience where viewers make the game more fun for the streamer.

Pitting players against streamers can be fun but can result in frustration or a streamer disabling interactive functions entirely, so it should only be done deliberately and in service of your goals. That said viewers love extreme reactions and jump-scares!

## **Compulsion Loops**

Designing a game for Mixer is the same as designing any game in that it pays to think about what kind of interactions will lead to a loop that hooks and retains players rather than one and done actions.

These experiences are in their early days. Soon we expect to see games where viewer actions unlock

abilities and rewards that make them more powerful in the stream and in the game (should they buy it later or own it already). We expect to see viewers who are more powerful when watching because of progress they made previously playing the game.

Perhaps players will log on to Mixer while riding the bus and help someone out, knowing that when they play on their console that night they will receive a reward in return. We see Mixer extending game experiences across smartphones and tablets.

Perhaps in a science fiction shooter a player who conquered the single player campaign can help others by calling in airstrikes on Mixer. Perhaps assisting the streamer in this way awards XP that levels them up when they later log into the game.

## **Other Ways to Help**

More subtle assistance mechanics include ways for viewers to modify the game world or rules for the streamer. Viewers might spawn a treasure chest and ping its map location, vote for challenges

that come with special rewards, or name creatures or enemies the streamer discovers in the world.

Before long we expect to see viewers purchasing virtual items for streamers too.

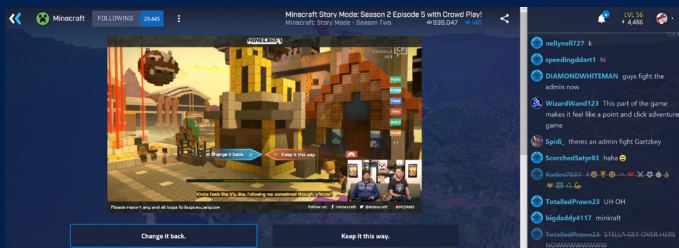
Any game with an economy should consider if adding Helper mechanics can improve the relationship between streamers and viewers, and thus drive more streaming of the game. The gameplay impact can be quite small (e.g. minor XP multiplier for a short duration) and still create a meaningful social interaction for viewers and a player reward that encourages streaming.

# PLAYER MECHANICS

## Viewers Are Players

Most Mixer Interactive games are built around viewers interacting with a streamer, but recently an exciting new genre emerged where viewers are the players.

It can be a challenge to design a game that works equally well with one or a million players.



Vote!

One interactive opportunity is voting. In Telltale's Minecraft: Story Mode, Mixer viewers vote on the



player choices as the game progresses. This is possible because Mixer's Faster than Light streaming protocol enables streamers to interact with their viewers in real time by delivering low latency video and interactions.

## **Wagers**

Another solution is wagering<sup>10</sup>. One can imagine a casino or horse racing simulation where players bet virtual currency against each other. Perhaps players could also spend currency on powers that affect the balance of a race or event.

## **Quiz Shows**

In 2009 Microsoft premiered the interactive quiz show 1 vs 100, which took a different approach by splitting players into the One, the Mob of 100, and the Crowd [the rest].

The One had the opportunity to win up to 10,000

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<sup>10</sup> If you're implementing this type of scenario you might want to look at [www.playfab.com](http://www.playfab.com)

Microsoft Points, while the remaining members of The Mob divided up the winnings and each won an Xbox Live Arcade game if they eliminated The One. [The top three players in The Crowd also won the XBLA game.]

A quiz format keeps everyone involved and makes the experience meaningful for all players.

It's also possible to create a tournament or mini-game system where players win the right to have more power over what happens in a stream. For example, it's possible to implement a slot machine that lets viewers win high value tokens that give more influence in the game or unlock direct play experiences.

## **Other Ways to Play**

We imagine a future where the Mixer audience is as engaged with the game as the streamer, with mechanics that require just as much skill, and deliver as much sense of reward and longevity.

# ***INTO THE FUTURE***

We're just at the dawn of this exciting intersection of streaming and gameplay, and we're already seeing entirely new experiences.

Will it become commonplace to watch and interact with streams of live television shows and festivals?

Will audiences vote on the set list at concerts, change the lighting in clubs, and call plays at football games?

Will we see streams routinely controlling drones, robots and cameras?

Will virtual reality give everyone the best seats at major sports events?

Will we see new genres based on streaming augmented reality and location-based gaming?

We hope so!

# GETTING STARTED

If you want to experience Mixer Interactive, go to <https://aka.ms/mixerinteractive>, sign in and choose a channel.

If you want to jump in and start coding, you can find Mixer development documentation at: <https://aka.ms/mixerdevinfo>

*Tip: You can often create a fun Mixer experience simply by hooking up Mixer buttons to your game's debug cheats.*

If you want to avoid programming, in just a few hours you can use the Mixer Developer Lab and a free tool such as Firebot to create and react to a simple interactive stream.

*Tip: Try making a stream that includes buttons viewers can use to send keyboard commands to the .exe in focus (which can be Notepad, or an emulator or game).*

It's fun watching viewers play, especially as you chat with them in real time. (It's also an interesting way to get feedback on games in development.)

*Tip: It's important to review your button layout for each platform as viewers will be interacting on PC's, consoles, and smartphones. You can create and preview each layout in the Developer Lab Editor.*

## **Create Official Channels**

Game developers, publishers, studios, and other major entities are eligible for channel verification on Mixer.

Being verified on Mixer gives the channel a blue verified badge and the ability to upload ten custom channel emotes. Of course, you can also promote your channel by linking to it from social media posts.

Partner streamers can upsell games at the top of their channels<sup>11</sup>. Streamers get a cut of the Microsoft revenue from content they upsell to viewers.

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<sup>11</sup> We are working on supporting this feature in all Official Channels.

# QUICK IDEAS REFERENCE<sup>12</sup>

## Acquisition

- Streamers can be regular players, celebrities, official channels, staff, events and servers.
- Games, websites and social media can link to or host live streams and GameDVR clips.
- Viewers often watch game streams to determine if they will purchase a game.
- Existing official Mixer channels can host and promote live streams (Channel One, HypeZone, official channels etc.).
- Viewers can earn rewards through watching, game mechanics, player concurrency and giveaways.
- Viewers can earn rewards by watching before they own a game, and this can be an incentive to buy.

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<sup>12</sup> Some of these are advanced scenarios that may require additional servers, services, external websites and development work.

- Streamers can invite viewers to join as players.
- Viewers can be encouraged to invite friends to watch with interactive elements that unlock an epic moment once a target number of people are watching.

## Engagement

- Viewers react, cheer and trigger emotes (which can impact gameplay, unlock rewards and celebrations).
- Streamers and titles can trigger surveys and polls.
- Gameplay can change based on the number of viewers.
- Viewers can drill down into extra stats, maps, lore, inventories, highlights and tournament information.
- Streamers can co-stream.
- Viewers can download game data (e.g. a streamer's crafting blueprint).



- Viewers can assist players by healing and buffing them.
- Viewers can hinder players by spawning enemies and altering game rules.
- Viewers can issue challenges to players.
- Viewers can pin or highlight areas of the game map or screen for players.
- Viewers can trigger XP boosts for players by cheering.
- Viewers can name “discoveries” in a game (e.g. newly discovered creature or plant).
- Viewer names can appear in a game or stream and be called out by a celebrity streamer.
- Players can earn Achievements and other rewards through being watched, assisted or challenged.
- Viewers can vote, answer questions, guide an NPC and even play directly as individuals, teams, a community, or guests with virtual controllers.

- Games can stay balanced and fun by restricting viewer actions and spawns.
- Viewer powers can require skill, challenge or collaboration (e.g. click the on-screen item at the correct time to collect it or affect it).
- Streamers can commentate, narrate or be the “Dungeon Master”.
- Game mechanics can be made available or hidden, limited to players, streamers, game developers or other groups.
- Streamers and viewers chat with text.
- Streamers voice chat with viewers.
- Text chat commands or buttons can trigger events [“!next” moves to the next stream in HypeZone].

## Retention

- Viewers can Follow streamers.
- Viewers can earn prizes by watching (perhaps when certain events happen).

- Viewers can have persistent status which can unlock new Mixer buttons or upgrade their participation level.
- Viewers can watch and interact on desktop, console or mobile, making progress or earning rewards remotely which can be used when they log back into the primary experience.

## **Monetization**

- Viewers can buy virtual items for themselves or streamers.
- Viewers can pay into prize pools or crowd funds.
- Viewers can buy (or install) the game they are watching, and streamers get a % cut. [This can unlock virtual rewards, virtual currency or items in a game.]
- Viewers can Subscribe to streamers
- Viewers can Tip streamers and Donate to charities.

# ***THANK YOU!***

Thank you for taking the time to brainstorm with us about what the future could look like in this space.

We are excited to partner with you to create that future!

Please reach out to [mixerdevinfo@microsoft.com](mailto:mixerdevinfo@microsoft.com) and start that journey with us.