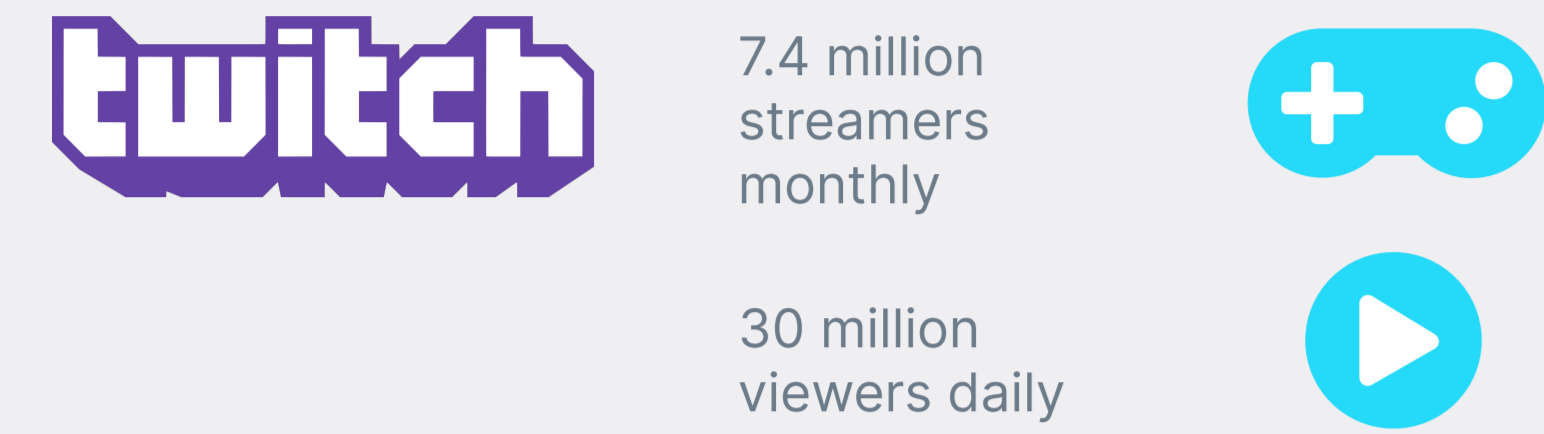




PROBLEM DEFINITION

Rise in Game Spectatorship



Why Game Spectators Watch

There are a variety of reasons for watching game streams

- Enjoyment
- Information-seeking
- Companionship
- Shared emotional connection
- Distraction
- ...

Different games and game streams tend to satisfy different spectator motivations

- Competitive games attract spectators looking to learn new strategies but their fast-paced nature leaves little room for social interaction
- vs.
- Sandbox games' slower pace welcomes interaction between streamer, spectator and community

Game spectators find different stream(er) attributes of personal importance (~affordances)

- Personality
- Skill Level
- Gender
- Voice and Speaking Style
- Audience Type
- ...

Game Stream Discovery Challenges

Abundance of content on game streaming platforms, yet they only utilize basic searching and filtering mechanisms

- Searching by: typing keywords in search bar
- Browsing by: followed streamers, game (genre), recommended, trending, recently released games
- Sort by: recommended, viewers (high to low, low to high), recently started
- Filter by: language, top (24h, 7d, 30d, All), past broadcasts, highlights, uploads, tags

→ Potential mismatch with spectators' search incentives!

Research Aim

Help spectators find not just streams, but relatable communities

RQ1: Which characteristics, searching behaviour, stream(er) affordances and motivations can be identified among Twitch game streaming spectators?

RQ2: Which design choices can improve the search and exploration experience of game streaming users?

METHODOLOGY AND RESULTS

SPECTATOR CHARACTERISTICS
Usage of Twitch, preferred game and stream genres
Participants have been using Twitch for > 3 years, watch streams weekly, and prefer Competitive, Let's Play, and Casual streams of Shooter, Role-Playing, Action & Adventure, Strategy, and Sandbox game genres

SEARCHING BEHAVIOUR
Usage of Twitch's searching, browsing, sorting and filtering options
Participants browse by followed streamers, game and keyword search, while other refining options are rarely used, except occasionally sorting streams by viewer count (high to low)

STREAM(ER) AFFORDANCES
Importance of 31 attributes of the stream(er)
Participants prioritize specific streamer attributes, notably personality, voice, speaking style, audience interaction, chat room atmosphere, and audiovisual quality

MOTIVATIONS
Applicability of 24 motivational statements
PCA revealed 6 motivations (in order of importance to participants): Entertainment, Pastime and Habit, Game Discovery, Learning and Skill Improvement, Social and Emotional Support, Community Engagement



Online Survey

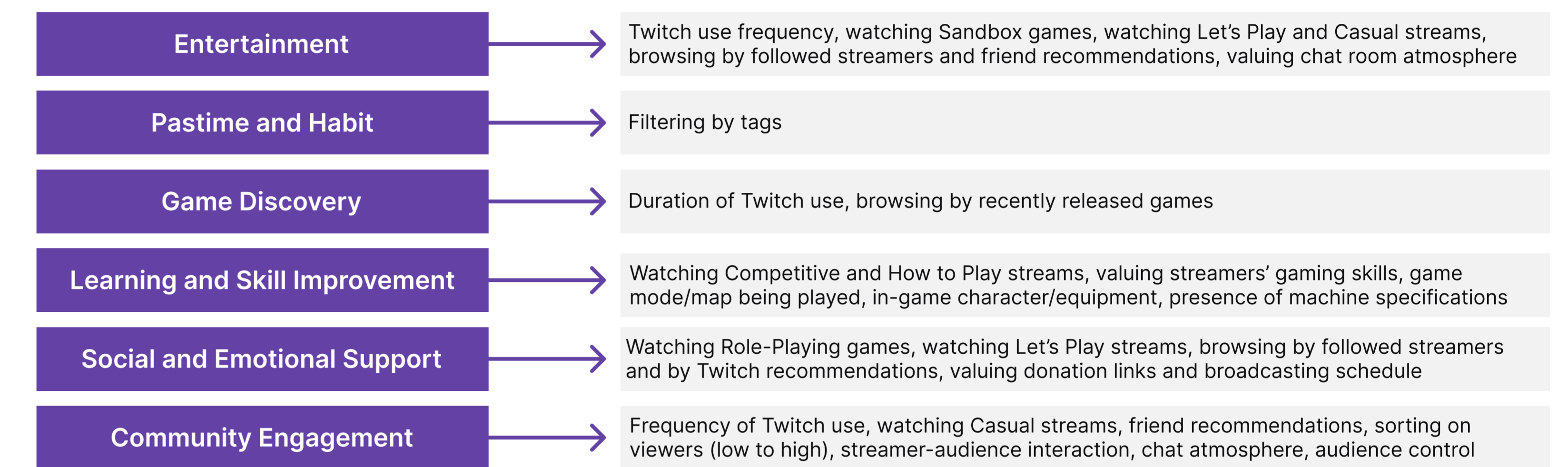
April-June 2023

187 participants (124 complete responses)

76% M, 16% F, 8% NB

M_{age} = 27.08 (SD = 7.32)

78% Europe, 21% America, 1% Asia



CONCLUSION

Attributes	Metadata
Streamer	Gender, ethnicity, hairstyle, fashion style, voice, sexual orientation, ...
Streamer Context	Microphone, camera, donation links, social media links, broadcasting schedule, ...
Community	Viewer count, follower count, chat atmosphere, chat speed, trending, ...
Skill	Online ranking, esports player, player metrics (k/d ratio), ...
Game Meta	Rank, level, game mode, map, weapon, class, character, difficulty level, ...
Features	Open world exploration, narrative-driven, role-playing, sandbox, puzzle solving, ...

SOCIAL INTERACTION
The social interaction between spectator and streamer, but also spectators among themselves, is an important motivator when watching a stream. To help spectators discover streams that satisfy their social needs, the metadata should relate to the level of interaction the stream provides.

KNOWLEDGE ACQUISITION
Skill Acquisition: Viewers frequently tune in to streams with the intent of acquiring new gaming techniques and strategies from their favourite players. **Serendipity:** Viewers often turn to these streams not only to learn strategies but also to assess new games before making a purchase decision.

CAPTIVATION
Viewers often watch streams for entertainment or as a distraction from boredom, encompassing a diverse range of stream types. A spectator's current mood, ranging from a desire for an active engagement to a more relaxed viewing experience, can influence their choice of stream.

Social interaction

Skill improvement

Serendipity

Captivation

