University of Zurich[UZH]

University Research Priority Program
Language and Space

Massively Multimodal Communication and Space: A Case Study of Video Game Livestreaming

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1. The Project

In recent years, there has been an increasing interest in the study of multimodal communication and the role of space in new media environments (cf. Beisswenger 2013; Kress 2010; Naper 2011; Sindoni 2014).

Similarly, video game livestreaming is an emergent (social) media environment, which has gained a lot of general popularity over the past few years, but is still scarecely thematized in academic research (cf. Hamilton et al. 2014; Hope 2014; Kaytoue et al. 2012).

Thus, in combining the three research interests **multimodality, digital space and video game livestreaming**, this study will help further advance the general research about multimodal communication in online spaces – a topic, which only recently gained the attention of researchers interested in digitally-mediated communication (Herring 2015; Thurlow & Mroczek 2011).

2. Background: Livestreaming

What is Video Game Livestreaming?

"In video game live streaming […], streamers, those who broadcast streams, share live video content of their gameplay composited with a video feed of themselves in real life. Viewers of the stream communicate with the streamer and other viewers through chat. Meanwhile, streamers simultaneously engage in game play and communicate via audio and video" (Hamilton et al. 2014: 1315). **(Fig.1)**

Communication in a Video Game Livestream

Video game livestreaming platforms often advertize themselves as having a community-centered approach to livestreaming, which highly fosters interactions between participants during the streaming sessions (cf. Hamilton et al. 2014).

During a streaming session, broadcasters, viewers, and co-players can generally make use of a variety of media (i.e. audio-, text-, video- and graphic-based media) and modes (e.g. writing, speech, dynamic and steady images, and non-verbal communication) in order to communicate.

Space(s) in a Video Game Livestream

- Livestreaming platform as an online space in its own right
- Livestream feed as a merged space **(Fig.2)**

3. Research Questions

1. What content, and more specifically, what media and modes are potentially available during a broadcast on different livestreaming platforms in general?

2. What channels of communication (i.e. what media and modes) do streamers use to communicate messages and/or interact with viewers and co-players?

3. For what purpose do streamers communicate and interact with others during a livestream and how is coherence achieved when a variety of modes are used during one of these conversations, which are, additionally, often disrupted by other participants' utterances / messages?

4. What kind of spatial affordances are available in an online space such as Twitch as a whole and in the different spaces merged for the livestream transmission, and how do they influence the communicative instances of the streamer, the co-player, and the interactive viewer?

4. Data and Methodology – Research Phase 1

1) General livestream data set
Research Question 1: Content, media, and modes
- 40 excerpts from 8 different livestreaming platforms
- 5 x 6 min excerpts of random video game livestreams
- Ethnographic method: observation & content analysis

2) Twitch data set

a) Research Question 2: Possible channels of communication on Twitch
- 18 broadcasts by 4 different streamers (first hour)
- Ethnographic method: observation & content analysis

b) Research Questions 3 & 4: Twitch pilot study
- 2 broadcasts by 2 different users from Twitch data set
- *Data driven*: Qualitative data analysis
  → coding broadcaster's interactional instances
- *Theory driven*: Multimodal discourse analysis
  → analysis of multimodal transcripts of interactions including spoken material, graphic and written material from the chat rooms, and descriptions of a broadcaster's relevant gestures (e.g. pointing) visible via the webcam feed.

Preliminary Findings (Fig. 3)

Possible Channels of Communication on Twitch (research question 2, data set 2a)

The analysis of 18 Twitch broadcasts showed that streamers can chose who they allow to be part of the different media used for communication during a streaming session. While the platform-owned Twitch chat is mostly open to all users with a Twitch account, the voice chat (VoIP) or in-game chat access is often restricted to certain participants (viewers and co-players) depending on the streamer's individual access criteria.

Thus, if a streamer allows for all three media to be used, he or she communicate through the modes of writing and speech with all participants in the relevant chat rooms and with all actual viewers additionally through non-verbal communication (gestures, mimics etc.). Participants with an all access status can also communicate with the streamer and each other through speech and writing, while the others are restricted to writing in the text-based platform chat.

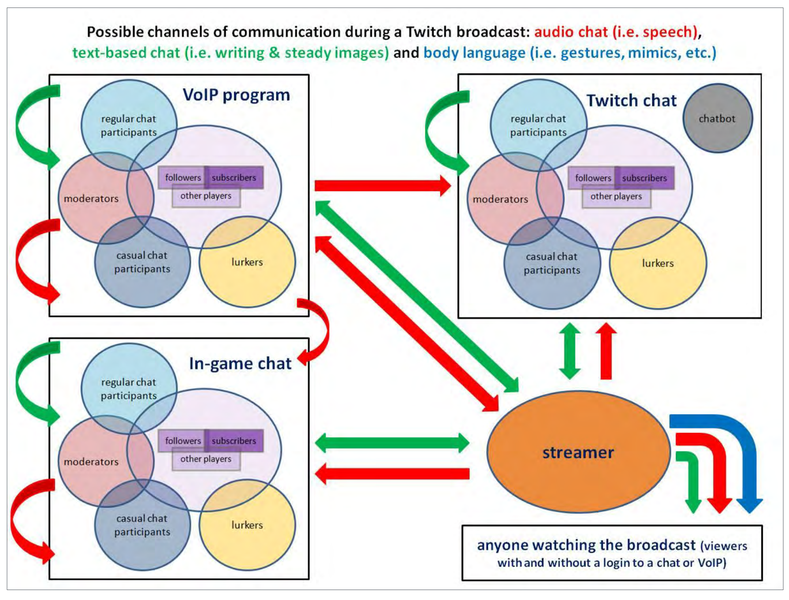

Fig.3: Possible channels of communication on Twitch

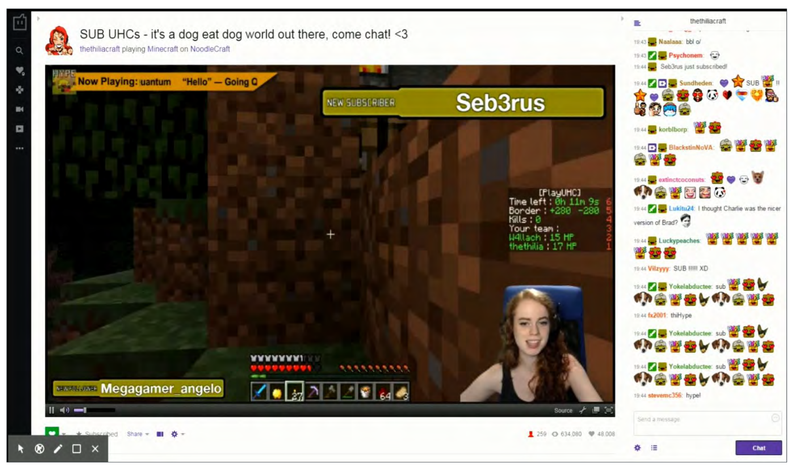

Fig.1: Screenshot of a video game livestream by Thethiliacraft
The livestreaming platform Twitch, for example, provides its users with an implemented chat interface via which streamers and viewers can interact, while the streamer plays the video game either alone or with other players. At the same time, the streamer can communicate verbally and non-verbally via the audio-visual webcam feed, and can make use of third-party programms such as VoIPs to allow other players or viewers to communicate messages and commentaries or interact with each other and the streamer through speech.

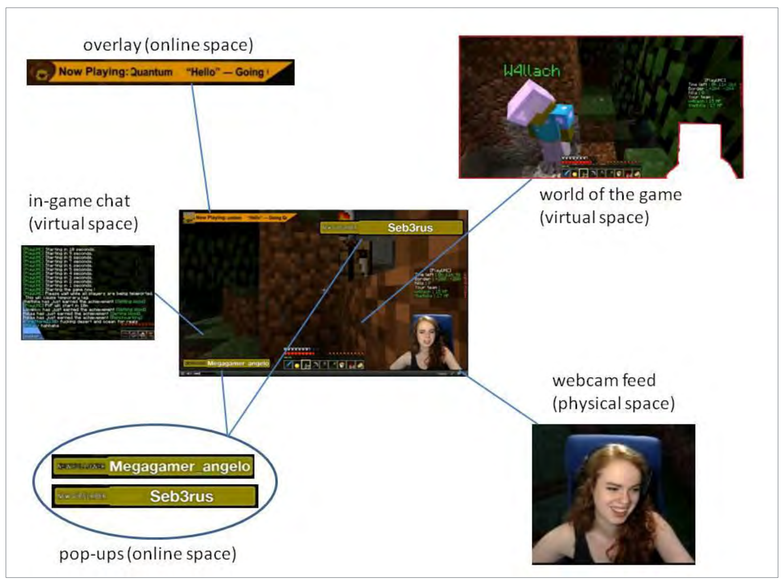

Fig.2: Merged spaces in the livestream feed
By using different media at the same time (e.g. video game, webcam, overlay, etc.), broadcasters often simultaneously merge different spaces with the help of their broadcasting software (e.g. physical space, virtual video game space, online space where overlays and pop-ups originate from). In doing so, streamers create a merged space, which is then transmitted the livestream feed.

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