Introduction to the Live Streaming Services Minitrack

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With streaming services, information production and information consumption behavior substantially changed. Usage patterns of watching TV evolved from a typical "lean-back" media usage to space- and time-independent consumption and, additionally, to production and participation (e.g., commenting) behavior [13]. With the advent of social live streaming services (SLSSs), live-TV and social media merged. SLSSs include a backchannel from the viewer to the streamer and among the viewers; they allow their users to broadcast their programs to everyone who wants to watch, all over the world. The streamers film either with the camera of a mobile phone or with the aid of a webcam. The audience may reward the performers with, e.g., points, badges, or money. Some SLSSs employ elements of gamification [12;14;15] to motivate their users to continuously apply the respective service. In contrast to other social media, SLSSs allow for synchronous information behavior: The main feature of SLSSs is the simultaneity of the communication, as everything happens in real time.

We may distinguish between general live streaming services without any topical restrictions (as, for instance, Periscope, YouNow, and YY Live), topic-specific SLSSs (as Twitch [16;17] for e-sports [7], Taobao for e-commerce, and Picarto for art), and embedded services (as a function of Social Networking Services; e.g., Facebook Live, YouTube Live, or Instagram Live). On a global scale, there are more than 200 different SLSSs, most of them located in China [11]. As live streaming is an important aspect of digital and social media, there is a growing number of research studies on this new topic in information science, system sciences, and HCI research. We were able to identify studies on SLSSs' producers [6], the broadcasted content [20], their viewers [8;19], and the systems themselves [4;5]. Researchers analyzed law infringements on SLSSs [21]; others discussed the special roles of micro-celebrities and influencers in relation to live streaming [3;9] and the users' motivations for live streaming shopping [2].

Many papers on SLSSs are founded by theoretical approaches such as the Lasswell formula, the Uses and Gratifications Theory, the Self-determination Theory, the Theory of Flow, and, finally, the Information Service Evaluation Model [23].

Our minitrack includes four articles covering a broad spectrum of SLSS research. Zimmer and Scheibe [22] conducted systematic observations and a content analysis of over 7,000 live streams in order to answer the question: "What drives streamers?" Hereby, they did not only consider the motives of the streamers, but also the different stream contents that they produce as well as gender- and age-dependent differences.

Some people apply SLSSs for fun; others do it to earn money. Is it possible to be motivated by both factors? Törhönen, Hassan, Sjöblom, and Hamari [18] investigated the users' perception of steaming as play, labour, or exactly this mixed form of usage that the authors call "playbour." They analyzed how the perception of online video creation influenced the activities as well as the generated income of video creators.

Cai and Wohn [1] focused on the commercial use of streaming services in their paper „Live streaming commerce: Uses and gratifications approach to understanding consumers' motivations." The authors included four motivations for using live streaming (enjoyment of interaction, substitutability of personal examination, need for community, and trend setting), and set them into relation to behavioral intention in three different scenarios (general watching, product search, and internet celebrity).

Internet celebrities and the emotional attachment that the users might develop towards them were investigated by Hsieh, Ou, and Xu [10]. The authors based they research on the attachment theory and the extended-self perspective, and their influence on users' tendency to continue the usage of live streaming services.

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