

**What is streaming?  
What is right for you?**



**Transmission latencies are significant for your sender/receiver relationship!**

# Streaming: →

- **Source/sender:** not live; audio-visual data recorded in the past – send now 24/7
- **Intended applications:** working with audio-visual recordings in order to reach your audiences wherever and whenever (e.g. theatre closed);
- **Technical specification:** low;
- **Importance of dealing with transmission latencies:** low;
- **Importance of using advanced networks:** low;
- **Sender-receiver relationship:** low; video on demand;

# Live streaming: ↔

- **Source/sender:** live;
- **Intended applications:** lectures; instructions for rehearsals; live event streaming (e.g. concerts, theatre, dance, readings);
- **Importance of minimizing latencies:** middle to high (ms);
- **Importance of using advanced networks:** middle to high; depending on the content/signals; quality standards;
- **Sender-receiver relationship:** middle to high (artists/performances – audience); opportunities of responding: yes (professor – students); the individual specifications defined by acceptable latencies;

The livestream itself is temporary!

# Interactive live streaming: ↔

- **Source /sender:** live and interactive;
- **Intended applications: multi-site performances** – on stage and in the World Wide Web;
- **Importance of minimizing latencies:** high to mandatory (ms);
- **Importance of using advanced networks:** significant to mandatory;
- **Importance of implementing low latency technologies:** mandatory, e.g. LOLA, UltraGrid, MVTP;
- **Sender-receiver relationship (artists – artists):** high; within a performance the dispersed artists are sender and receiver at the same time; simultaneous;
- **Sender-receiver relationship (artists – audience):** high; audiences have access on- and offline; an intensive experience requires very high audio-visual quality standards;

# Multi-site performances: ⇄ ↔ →

## Interactive livestreams, livestreams and streams – we need them all!

- Each venue is connected via high-speed networks, the signals of the artists are processed with low latency technologies (**interactive live streaming**);
- Artists at locations with low-bandwidth connection are integrated via **livestream**. The signals are integrated in the artistic concept, but no real-time interaction is possible with the rest of the ensemble;
- Our audiences have access by visiting real venues and also via **livestream** in the World Wide Web
- Afterwards we use the recordings for documentation and for **streaming** (on demand).  
Circle closed.

Take a look:

[www.netart.cc](http://www.netart.cc)

Thank you!

renate kreil

arts & culture | on behalf of ACOnet

