

The Internet of Machines: Technological Synergy and Computer Music

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Outline

- General conceptual aspects
- Distributed System for Computer Music Generation
- Implementation overview
- Sound Synthesis Core
- Some Ideas for Future

General concept (1/2)

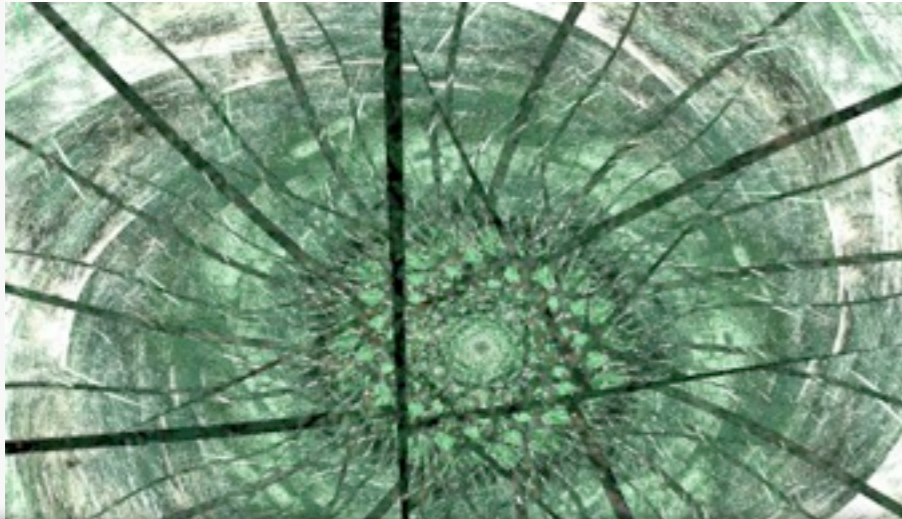
The Internet of Things provides possibilities for a brand **new classes** of applications

Media art could reach another level of its **evolution** with the usage of **distributivity** principles

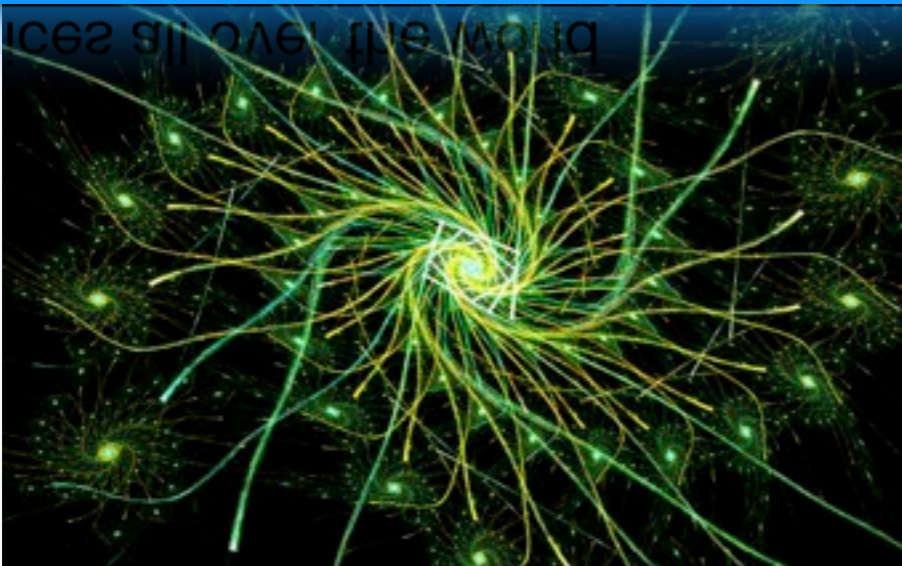
Acting together, **myriads of machines** could behave as a complex **superorganism**. It could accumulate knowledge, gathered by agents, distribute it and transform it.

The system should work on multiple platforms and devices

General concept (2/2)



Electric Sheep is a collaborative abstract artwork run by thousands of devices all over the world

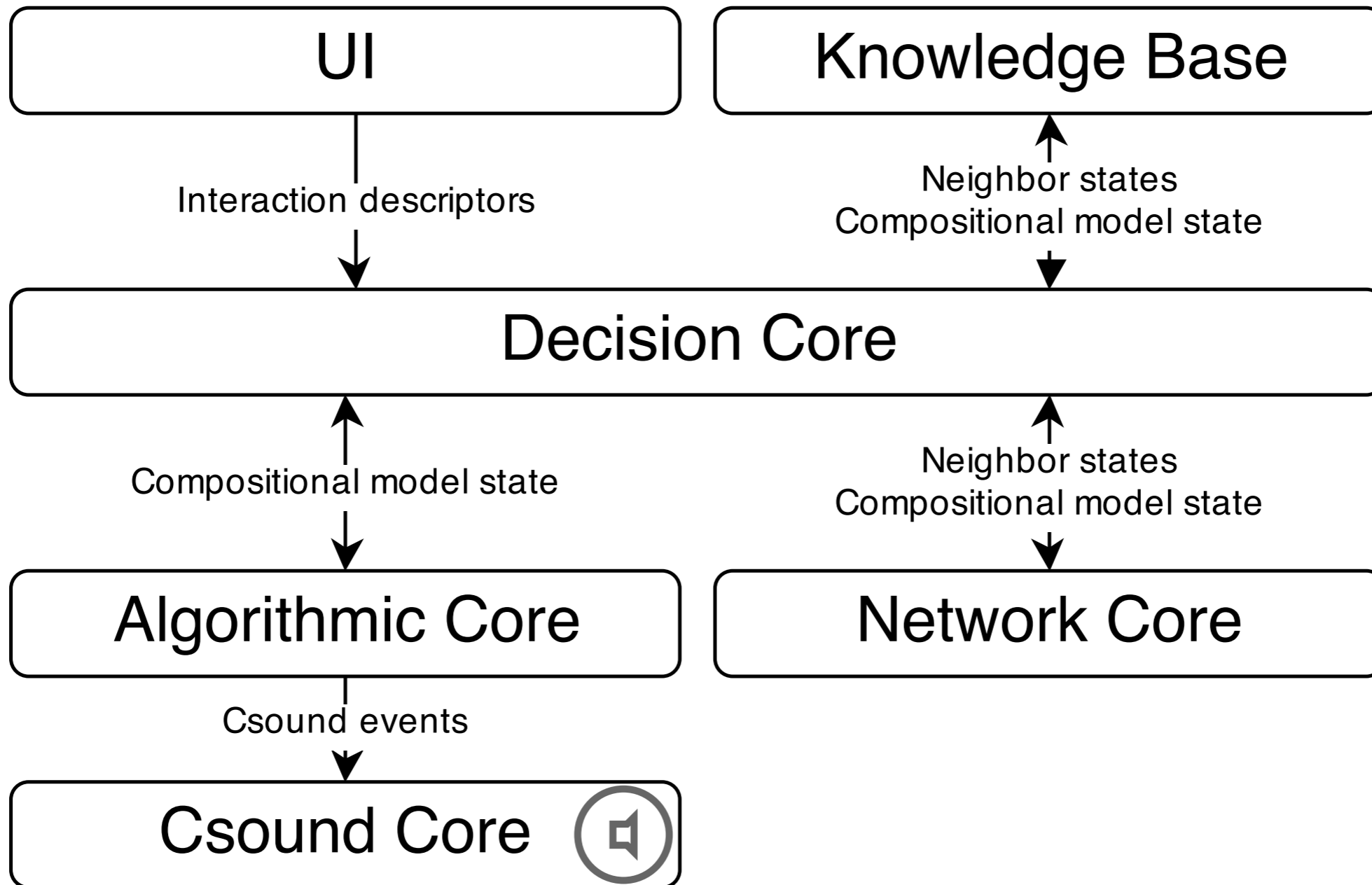


#tweetscapes transforms all german Twitter updates into sound and video in real time



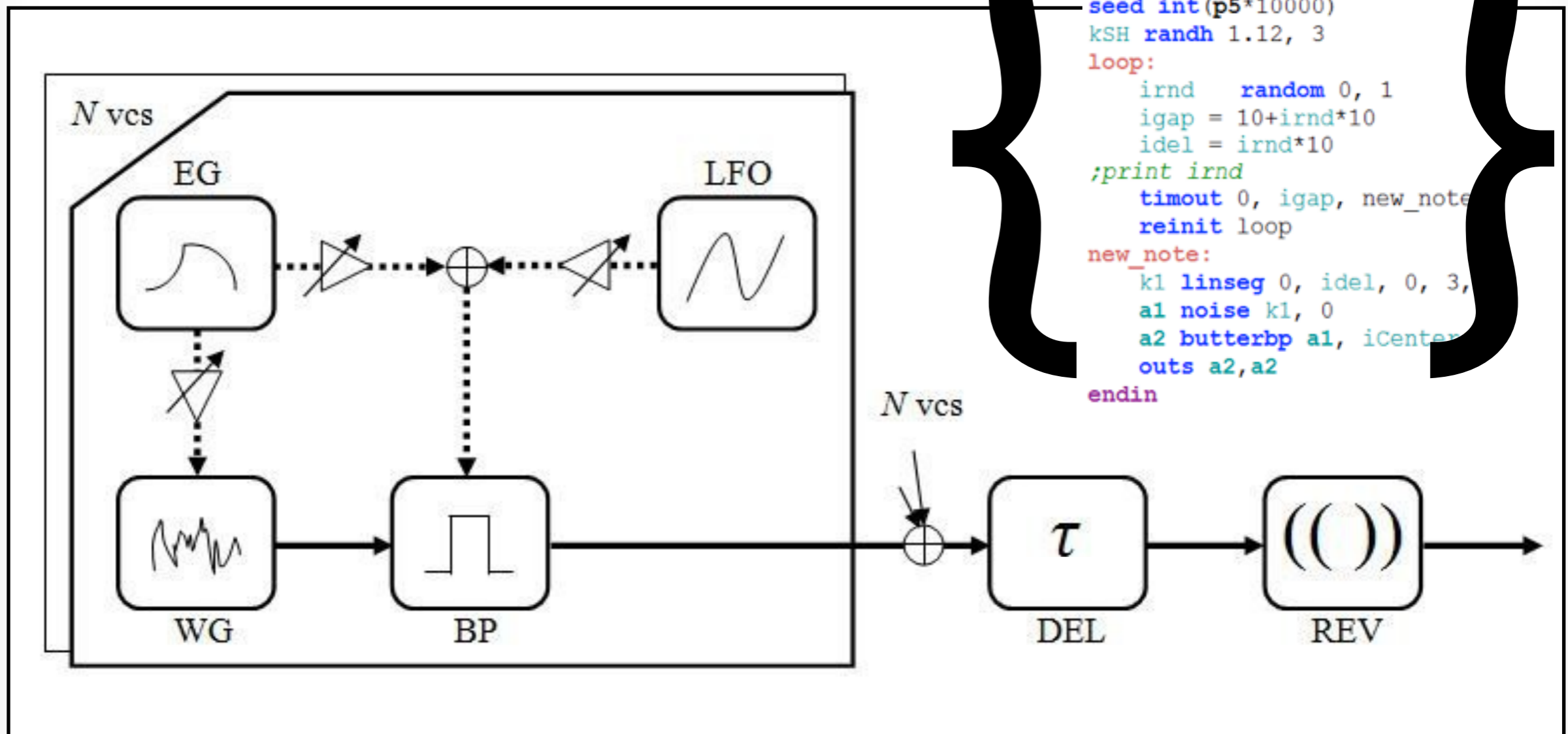
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Architecture of the Agent



Sound Synthesis Core

CSound-based drone generator



Summary

During this presentation we described some ideas about distributed creativity phenomenon in the upcoming IoT society. The upcoming shapes of post-NGN world inspire the ultra modern approaches to the creativity.

The novel forms of media art exploit the new possibilities of networks, collaborating with human beings and machines.

We also described the model of intellectual system for computer music generation based on a network of autonomous computational agents. The model is based on the language for computer music programming Csound

Future work

Future work should be oriented on several problems, including:

aesthetics of the system - how to create the music which could be decided to be written by the humans, or decided to have interest for humans;

advanced **modeling** of the networking - to find the optimal self-organizing strategy etc;

sound design issues - to make system being able to apply evolution principles for synthesis core;

different media - how to integrate the system with different applications and environments

Thank you!

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