A New Spin on Music

Gert Lanckriet
Professor, Electrical and Computer Engineering Department

CURRENT RESEARCH

Revolutionizing music search and discovery with artificial intelligence

Through the Internet, millions of songs are instantly available to virtually anyone on the planet. This is more music than one could listen to in a lifetime! Dr. Gert Lanckiet of University of California, San Diego has a goal to enable music fans the ability to explore, discover and enjoy music they like, at any time they choose, whether they tap into this massive pool of online content, their personal libraries, or discover new music at local gigs.

- At the Computer Audition Lab, they develop new Artificial Intelligence algorithms and big data technologies to allow computers to automatically analyze and annotate musical content.
- That allows them to build music search and recommendation engines -- e.g., to automate discovery and playlisting for online music platforms.
- They also work on personalized music systems that automatically adapt to a user's context (activity, mood, location, medical condition, etc.).
- By leveraging mobile sensor data currently available through smartphone sensors, Google glass, etc., they are developing new technologies that predict user context and recommend music, without requiring active user interaction.

Dr. Lanckriet's research in machine learning and big data addresses questions that are at the core of analyzing multimedia content in general -- not just music. It enables a new generation of search engines for a variety of multimedia, including images, audio, video, etc., across the Internet -- to discover less-known music and video, explore historical archives, expose great local live shows, or browse user-generated photos and videos on smartphones. This technology for context-aware mobile devices has a broad range of...

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AFFILIATION

University of California, San Diego

EDUCATION

- Ph.D., in Electrical Engineering and Computer Science, 2005,University of California, Berkeley,M.S.c., in Electrical Engineering and Computer Science, 2001,University of California, Berkeley

AWARDS

- Named one of the 35 top young technology innovators in the world (TR35), 2011
- Alfred P. Sloan Foundation Research Fellowship, 2011
- IBM Faculty Award, 2010
- Google Research Award, 2010
- The SIAM Activity Group on Optimization (SIAG/OPT) Prize

RESEARCH AREAS

Technology, Computational Sciences / Mathematics, IOT, Devices, Data

FUNDING REQUEST

Your donations will help develop innovative computer algorithms and artificial intelligence technology that can analyze millions of songs while predicting a listener's activity, mood, or location from mobile sensors. Then, it will recommend the music they are most likely to enjoy given that same activity, mood, or location.