JOSE EDUARDO OROS CHAVARRIA

+1(412) 500-4169 ◇ Pittsburgh, PA
joros@cmu.edu ◇ linkedin.com/in/joseoros

EDUCATION

Heinz College, Carnegie Mellon University, Pittsburgh, PA — 2019 - to date
Ph.D., Information Systems and Management
Comittee: Michael D. Smith, Rahul Telang, George H. Chen
Master of Information Systems Management — December 2017

Instituto Tecnológico Autónomo de Mexico (ITAM), Mexico City, Mexico — 2011 - 2016
Bachelor of Science, Telecommunications Engineering
(Graduated with honors)

DISSERTATION

Title: **The Impact of Digital Platforms on Content Creators.**

Essays:

Playlist-Induced Spillovers: Examining Off-Platform Concert Activity for Emerging Artists on Spotify Ongoing Research Project
Jose Oros, Kyle Kretschman, Jacqueline Doremus, Michael D. Smith, Rahul Telang

The Effect of Record Label Signings in Online Music Sales. Ongoing Research Project
Jose Oros, Rahul Telang

Predicting Artist Success using Social Media Data. Heinz College First Paper
Jose Oros

ABOUT ME

My research analyzes how digitization and digital technologies impact media markets. Digital media platforms have become the primary way many people consume entertainment, and have gained significant power and influence over both content creators and consumers. Through my dissertation work, I aim to understand how these platforms affect the career outcomes of creators, particularly in the music industry. The first chapter of my dissertation explores the relationship between social media signals and the success of emerging artists. The second chapter studies the promotional and quality effects of an artist's decision to sign with a record label on their online music sales. For my third chapter, I'm collaborating with Spotify's Creator Economics team to understand the impact of playlists on artist's touring decisions and live performances. I am highly interested in participating in the NBER Digital Economics and AI Tutorial due to its direct relevance to my academic pursuits. The significant progress in generative AI has brought forth crucial issues within the digital media ecosystem. This tutorial offers a timely and valuable opportunity to explore the challenges and opportunities arising from these technologies. With my relevant background, I believe I can contribute meaningfully to the discussions and the community. In the following paragraphs, I will further elaborate on the content of my three essays and research projects.

The first chapter in my dissertation titled "Predicting Artist Success Using Social Media," explores how social media data can play a central role in informing decision makers and help mitigate the risk and uncertainty inherent to the artist scouting process. I employ machine learning methods to predict whether early career musicians will reach two major milestones: working with a major record label and breaking into a Billboard chart. To this end, I leverage a unique data set of YouTube engagement metrics for 188k videos from 6k emerging artists, musical releases and popularity charts. My classification results show that audience metrics from YouTube are more predictive of Billboard chart appearances than major label signings, suggesting a strong association between observable social media performance and objective and readily available measures of success.

For my second chapter, I'm working on a research project on the topic of "The Effect of Record Label Signings on Online Music Sales." The emergence of digital tools has led to a reduction in production and distribution costs in the music industry, enabling artists to create professional-grade content independent from traditional record labels. In this new context, we are interested in measuring the value that an artist gets from signing with one of the major record labels (Warner, Sony and Universal). For this purpose, we leverage a data set of music streaming and sales data from a cohort of artists who were signed by a major record label between 2017 and 2019. For identification, we leverage variation in album releases supported by major labels as well as smaller independent labels, within and across artists. Our aim is to evaluate the effect of the promotional and marketing efforts of record labels on visibility, music sales, and overall quality of these artists in the digital age.

During the summer of 2022, I had the opportunity to collaborate with the Creator Economics group at Spotify, conducting research on the impact of music analytics tools on artists' decision-making. In December 2022, Carnegie Mellon University and Spotify signed a long term research and data sharing agreement to continue and expand this research. Under this research agreement I have direct access to proprietary Spotify data. The first research study under this agreement explores how placement in Spotify playlists impact emerging artists' touring activity. To achieve this, we leverage data from Spotify's editorial playlists, demand for the artists' music, as well as live performances from creators around the world. Through this research, I hope to contribute to the field of the economics of digitization by providing evidence of another way in which digital innovation impacts creators' outcomes, specifically off-platform.

The advancements in generative AI technologies have raised important questions about authorship, ownership, creative inspiration, sampling, and remixing in media production (Epstein et al., 2023). As a result, there is a growing need for research to understand the implications of these technologies. The access to proprietary data from Spotify provides us with a unique opportunity to address these questions effectively. Through this data, we can investigate the prevalence of AI-generated content on the platform, assess its impact on creators and consumers, and examine the effects of new copyright laws.

References

Epstein, Z., A. Hertzmann, M. Akten, H. Farid, J. Fjeld, M. R. Frank, M. Groh, L. Herman, N. Leach, R. Mahari, A. ". Pentland, O. Russakovsky, H. Schroeder, and A. S. and (2023, jun). Art and the science of generative AI. *Science 380*(6650), 1110–1111.