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RESEARCH INTERESTS

I am a computer scientist interested in understanding laypeople's perceptions of artificial intelligence (AI) systems and their impacts on society. More concretely, I aim to investigate how AI developers can shape the public perception of decision-making algorithms. I am interested in how some of the ideologies shaping AI research, e.g., that algorithms are value neutral, can form laypeople's understanding of algorithms deployed in high-risk domains. I intend to study how these ideas can be exploited by developers to escape deserved accountability and help justify unjust social outcomes caused by decision-making AI to the public.

During my BS and MS, I investigated people's perceptions of moral and legal responsibility for algorithmic decision-making. My research focused on capturing whom people consider responsible when AI causes harm to embed laypeople's opinions in normative research and policymaking to mitigate any potential conflicts between folk expectations and AI governance.

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, South Korea, Mar. 2021 - Feb. 2023

M.S. in Computer Science. Advisor: Meeyoung Cha.

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, South Korea, Feb. 2017 - Feb. 2021

Advanced B.S. in Computer Science (with honors).

École Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Switzerland, Sep. 2019 - Feb. 2020

Exchange Semester at the School of Computer and Communication Sciences.

SELECTED PUBLICATIONS

Gabriel Lima, Nina Grgić-Hlača, Jin Keun Jeong, Meeyoung Cha. "The Conflict Between Explainable and Accountable Decision-Making Algorithms." *Proceedings of the 2022 Conference on Fairness, Accountability, and Transparency (FAccT)*. 2022.

<https://doi.org/10.1145/3531146.3534628>

Gabriel Lima, Jiyoung Han, Meeyoung Cha. "Others Are to Blame: Whom People Consider Responsible for Online Misinformation." *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2022.

<https://doi.org/10.1145/3512953>

Assem Zhunis, **Gabriel Lima**, Hyeonho Song, Jiyoung Han, Meeyoung Cha. "Emotion Bubbles: Emotional Compositions of Online Discourse Before and After the COVID-19 Outbreak." *Proceedings of the Web Conference (WebConf)*. 2022.

<https://doi.org/10.1145/3485447.3512132>

Gabriel Lima, Nina Grgić-Hlača, Meeyoung Cha. "Human Perceptions on Moral Responsibility of AI: A Case Study in AI-Assisted Bail Decision-Making." *Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2021.

<https://doi.org/10.1145/3411764.3445260>

Gabriel Lima, Meeyoung Cha, Chihyung Jeon, Kyung Sin Park. "The Conflict Between People's Urge to Punish AI and Legal Systems." *Frontiers in Robotics and AI*. 2021.

<https://doi.org/10.3389/frobt.2021.756242>

Gabriel Lima, Assem Zhunis, Lev Manovich, Meeyoung Cha. "On the Social-Relational Moral Standing of AI: An Empirical Study Using AI-Generated Art." *Frontiers in Robotics and AI*. 2021.

<https://doi.org/10.3389/frobt.2021.719944>

Gabriel Lima, Changyeon Kim, Seungho Ryu, Chihyung Jeon, Meeyoung Cha. "Collecting the Public Perception of AI and Robot Rights." *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2020.

<https://doi.org/10.1145/3415206>

Note: conferences are the primary publication venues for Computer Science/Human-Computer Interaction research.

HONORS AND AWARDS

Best Student Paper Award

2022

Received at the "Issues in XAI #4: Explainable AI: between ethics and epistemology" workshop for the paper titled "The Conflict Between Explainable and Accountable Decision-Making Algorithms."

New Horizons Award

2022

Received at the ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO '22) for the paper titled "Dimensions of Diversity in Human Perceptions of Algorithmic Fairness." The New Horizons Award is given to papers "bridging research and practice that EAAMO aspires to foster."

KAIST School of Humanities and Social Sciences Best Paper Award

Spring Semester, 2020

Received for the paper titled "How Granting Rights to AI and Robots Might Conflict with Human Rights."

KAIST School of Computing Dean's List

Fall Semester, 2018

Received for outstanding academic achievement.

Best Presentation Award

2018

Received at the International Conference on Signal Processing and Machine Learning 2018.

KAIST Graduate/Undergraduate Research Project (GURP) Funding

2018

Received KRW 8,000,000 (USD 6,700) for a research project on classifying emotion from raw speech data.

ACADEMIC SERVICES

Reviewer

ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) 2022

ACM Conference on Human Factors in Computing Systems (CHI) 2022

ACM Conference on Human Factors in Computing Systems (CHI) - Late Breaking Work 2022

International Journal of Human-Computer Studies 2022

We Robot Conference 2021

PUBLICATIONS LIST

Note: conferences are the primary publication venues for Computer Science/Human-Computer Interaction research.

Hyojin Chin, **Gabriel Lima**, Mingi Shin, Assem Zhunis, Chiyoun Cha, Junghoi Choi, Meeyoung Cha. "User-Chatbot Conversations During the COVID-19 Pandemic: A Study Based on Topic Modeling and Sentiment Analysis." *Journal of Medical Internet Research (JMIR)*. 2023. To Appear.

Gabriel Lima, Nina Grgić-Hlača, Jin Keun Jeong, Meeyoung Cha. "The Conflict Between Explainable and Accountable Decision-Making Algorithms." *Proceedings of the 2022 Conference on Fairness, Accountability, and Transparency (FAccT)*. 2022.

<https://doi.org/10.1145/3531146.3534628>

Gabriel Lima, Jiyoung Han, Meeyoung Cha. "Others Are to Blame: Whom People Consider Responsible for Online Misinformation." *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2022.

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Assem Zhunis, **Gabriel Lima**, Hyeonho Song, Jiyoung Han, Meeyoung Cha. "Emotion Bubbles: Emotional Compositions of Online Discourse Before and After the COVID-19 Outbreak." *Proceedings of the Web Conference (WebConf)*. 2022.

<https://doi.org/10.1145/3485447.3512132>

Nina Grgić-Hlača, **Gabriel Lima**, Adrian Weller, Elissa M. Redmiles. "Dimensions of Diversity in Human Perceptions of Algorithmic Fairness." *Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO)*. 2022.

<https://doi.org/10.1145/3551624.3555306>

Karandeep Singh*, **Gabriel Lima***, Meeyoung Cha, Chiyoun Cha, Juhi Kulshrestha, Yong-Yeol Ahn, Onur Varol. "Misinformation, Believability, and Vaccine Acceptance Over 40 Countries: Takeaways From the Initial Phase of The COVID-19 Infodemic." *PLOS ONE*. 2022 (* denotes co-first authorship).

<https://doi.org/10.1371/journal.pone.0263381>

Saifelddeen Zihiri*, **Gabriel Lima***, Jiyoung Han, Meeyoung Cha, Wonjae Lee. "QAnon Shifts Into the Mainstream, Remains a Far-Right Ally." *Heliyon*. 2022 (* denotes co-first authorship).

<https://doi.org/10.1016/j.heliyon.2022.e08764>

Gabriel Lima, Nina Grgić-Hlača, Meeyoung Cha, Jin Keun Jeong. "How XAI May Be Exploited To Create Seemingly Blameworthy AI." *Human-Centered Explainable AI (HCXAI) Workshop at the 2022 CHI Conference on Human Factors in Computing Systems*. 2022.

Gabriel Lima, Nina Grgić-Hlača, Meeyoung Cha. "Human Perceptions on Moral Responsibility of AI: A Case Study in AI-Assisted Bail Decision-Making." *Proceedings of the CHI Conference on Human Factors in Computing Systems*. 2021.

<https://doi.org/10.1145/3411764.3445260>

Gabriel Lima, Meeyoung Cha, Chihyung Jeon, Kyung Sin Park. "The Conflict Between People's Urge to Punish AI and Legal Systems." *Frontiers in Robotics and AI*. 2021.

<https://doi.org/10.3389/frobt.2021.756242>

Gabriel Lima, Assem Zhunis, Lev Manovich, Meeyoung Cha. "On the Social-Relational Moral Standing of AI: An Empirical Study Using AI-Generated Art." *Frontiers in Robotics and AI*. 2021.

<https://doi.org/10.3389/frobt.2021.719944>

Meeyoung Cha, Chiyoun Cha, Karandeep Singh, **Gabriel Lima**, Yong-Yeol Ahn, Juhi Kulshrestha, Onur Varol. "Prevalence of Misinformation and Factchecks on the COVID-19 Pandemic in 35 Countries: Observational Infodemiology Study." *JMIR Human Factors*. 2021.

<https://doi.org/10.2196/23279>

Gabriel Lima, Meeyoung Cha, Chiyoung Cha, Hyeyoung Hwang. "COVID-19 Vaccine Acceptance in the US and UK in the Early Phase of the Pandemic: AI-Generated Vaccines Hesitancy for Minors, and the Role of Governments." *Journal of the Korean Data Analysis Society*. 2021.
<http://doi.org/10.37727/jkdas.2021.23.3.1043>

Gabriel Lima, Changyeon Kim, Seungho Ryu, Chihyung Jeon, Meeyoung Cha. "Collecting the Public Perception of AI and Robot Rights." *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2020.
<https://doi.org/10.1145/3415206>

Gabriel Lima, Chihyung Jeon, Meeyoung Cha, Kyungsin Park. "Will Punishing Robots Become Imperative in the Future?." *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems*. 2020.
<https://doi.org/10.1145/3334480.3383006>

Gabriel Lima, Meeyoung Cha. "Descriptive AI Ethics: Collecting and Understanding the Public Opinion." *Ethics in Design Workshop at the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2020.
<https://arxiv.org/abs/2101.05957>

Gabriel Lima, Meeyoung Cha. "Responsible AI and Its Stakeholders." *Fair and Responsible AI Workshop at 2020 CHI Conference on Human Factors in Computing Systems*. 2020.
<https://arxiv.org/abs/2004.11434>

Gabriel Lima, Sungkyu Park, Meeyoung Cha. "Robots for Class President: Children's Positions Toward AI Robot Rights." *Proceedings of the Korea Computer Congress (KCC)*. 2019.