

PROGRAM OF
ICAITD 2025

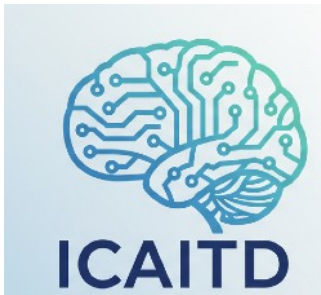
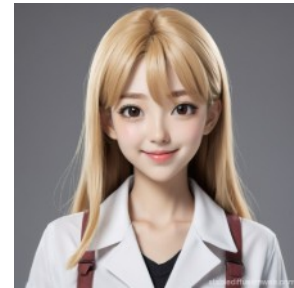
June 1st to 4th

**International Conference
of AI new Technology
and open Discussion**



ICAITD
2025
Tokyo

**ALGORITHM
LAB.**



Program in detail

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June 1st 15:00-17:30

registration

tags

guidance

venue:Pleasant Lounge 7F

2-30-5 Nakano, Nakano-ku, Tokyo Japan 164-0001

2min. From South Exit of JR Nakano Station



by google map

Monday June 2nd 2025

1. Opening Talk

Committee: **Kazuo Ohzeki**

2,3. Keynote:

The Dual Nature of Generative AI: Exploring its Potential Benefits and Risks

Veena Priscilla Menezes and Amberlynn Menezes Co-founders of Skelethos

Session 1:

4. OncoFusion: Multi-Model Approach for Generalized and Ovarian Cancer Detection with Stacked Ensembles

Salma Mulla

Keywords— Cancer Detection, Machine Learning, Deep, Learning, Histopathological Images, Convolutional Neural,

Lunch break

Session 2:

6. Artificial Intelligence in Diagnostic Imaging Enhancing Patient Care Through Advanced Algorithms and Data Integration

Shazia Hassan et al.

Keywords—Artificial Intelligence; Diagnostics Imaging; Radiography; Cardiovascular Imaging; Cardiovascular Events; Clinical Workflows; Deep Learning; MRI; Imaging Biomarkers; Computed Tomography; Workflow Optimization

7. A Causal Analysis of AI Powered Metaverse Adoption Barriers in SMEs

Ashish Trivedi

Keywords—Metaverse, SME, DEMATEL, Virtual world, Decision Support

8. AI-Powered Voice Chatbots in E-Commerce: Enhancing Trust, Customer Care, and Retention

Vibha Trivedi

Keywords: AI; Chatbot; Service; Trust

Networks (CNN), Transfer Learning, Data Augmentation, Hyperparameter Tuning, EfficientNet BO, DenseNet121, Xception.

9. AI-Based Software Application Planner

:zoom

Yash Kalange et al.

Keywords: Project Management, Project Planning, Building Projects, Software Development, Artificial Intelligence.

10. DEEP LEARNING BASED ACCURATE PHISHING URL DETECTION FRAMEWORK :zoom

Muhamad Usman et al.

Keywords: Phishing detection, Deep learning, Convolutional neural networks (CNN), Recurrent neural networks, (RNN), Long short-term memory (LSTM)

coffee break

Session 3:

11. NutriRAG: Personalized and Sustainable Smoothie Generation for Metabolic Disease Management :zoom

Anand K. Gavai et al.

Keywords: RAG, Personalized Nutrition, Obesity & Type 2 Diabetes, Health Literacy, Food Sustainability

12. Early EEG Biomarkers of Dyslexia: An AI-Driven Discovery from First-Session Recordings :zoom

Günet Eroğlu

Keywords: Dyslexia, EEG, quantitative EEG, Artificial Neural Network, machine learning, biomarkers, single-session screening

Music break,

13. Working Dinner :at 49th Sumitomo Shinjuku Building



Tuesday June 3rd 2025

Invited Lecture:

14. Artificial Intelligence (AI) and citizen science (CS)
Akifumi Ueda Citizen's Science Initiative Japan

Session 4:

15. Fostering Empathy and Enhancing Creativity in Human-AI Agent Dialogues
Masaki Shimada, Shigeru Hosono et al.
Keywords: Knowledge Graph, Nudge Theory, Abduction, Empathy, Creativity, AI Agent

Lunch break

Session 5:

16. Learning Tendency Analysis of Scratch Programming Course(Entry Class) for Upper Elementary School Students Based on Bayesian Item Response Theory
Ryota Kozakai et al.
Keywords: Programming Education, Junior High School Student, Scratch, Bayesian Item Response Theory
17. Evaluating the Speed Advantage of Urban Elevated Small Vehicle Arterials (SVAs): A Case Study of Chicago, New York City, and San Francisco
Daniel Price
Urban Highways Bicycle Elevated Small Vehicle Arterial
18. Panchayat Raj Services: A Flutter Based Mobile Application
Rohit Nikam et al.
Keywords—E-Governance, Panchayat Raj, Digital India, Mobile Application.

coffee break

Session 6:

19. Temporal variations in frequency of color use relative to position in portrait paintings
Yasuyuki SAITO et al
Keywords: painting, WikiArt, portrait, hue, frequency of color use by category
20. Integrated Analytics and Prediction of Heart Disease, Diabetes, and Parkinson's Using Logistic Regression and SVM Models:zoom :zoom
Onkar Awate et al.
Keywords— Chronic Disease Prediction, Diabetes, Heart Disease, Parkinson's, Machine Learning, Support Vector Machines (SVM), Logistic Regression, Preventive Healthcare, AI in Healthcare, Early Diagnosis, Disease Risk Assessment.
21. Image Caption Generation with Voice:
Smitha Nayak et al.
Keywords—Image Annotation, Intelligent Learning Systems, LSTM Architecture, Advanced Neural Networks, Feature Mapping.
22. Scaling Semantic Categories: Investigating the Impact on the Labeling Performance of Vision Transformers :zoom
Anthony Lamlelas et al.
Keywords: Scaling Semantic Categories, Labeling, Vision Transformers
23. Simulated Humanity: How Generative AI in Sex Robots Reinforces Objectification :zoom
Chenhao_Li
Keywords: Generative AI, Sexual Objectification, Sex Robots, Technological Ethics, Human Imitation

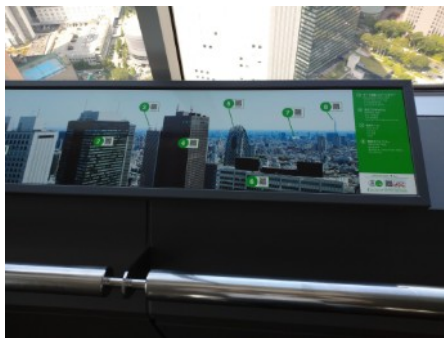
Closing

Kazuo Ohzeki

City Technical and Cultural tour June 4th

10:00 at West Exit of JR Shinjuku Station(Underground only)

(1) Tokyo Metropolitan Government Tower
45th floor of North Tower, surround view with



<https://www.english.metro.tokyo.lg.jp/>

<https://www.gotokyo.org/en/guide-services/government-building-guide-services/index.html>

https://www.zaimu.metro.tokyo.lg.jp/documents/d/zaimu/200115_tokyo_info_US_web

(2)

<https://campustour.pr.u-tokyo.ac.jp/course/>

赤門をスタートとして本郷キャンパスを一周する約2時間のコースです。

We offer free, official University of Tokyo campus tours guided by student guides, primarily undergraduate students from the University of Tokyo.

(2-2: Museum)

<https://www.um.u-tokyo.ac.jp/>

The University Museum, Hongo Main Building (located on the Hongo campus of the University of Tokyo)

Location: 7-3-1 Hongo, Bunkyo-ku, Tokyo

Abstracts:

4. OncoFusion: Multi-Model Approach for Generalized and Ovarian Cancer Detection with Stacked Ensembles

Sarika Zaware, Ayesha Sayyad, Salma Mulla, Aarya Patil and Rutuja Neharkar

Abstract— Cancer detection is a critical task in the medical field, where accurate and early diagnosis can save lives. However, current research faces challenges such as high false positive rates, difficulty in generalizing models across diverse datasets, and inconsistent accuracy in realworld scenarios. Many models perform well on specific datasets but struggle to maintain accuracy across different populations and imaging techniques. Our research focuses on using machine learning (ML) techniques to detect cancer from histopathological images. We investigated Convolutional Neural Networks (CNN) as well as more conventional machine learning models like Random Forests and XGBoost for the analyzing images. The datasets offer a solid foundation for testing and training. Our goal is to create a cancer detection system that is accurate, scalable, and greatly enhances diagnostic capabilities. We also use data augmentation for improved generalization, hyperparameter tuning to increase accuracy and transfer learning to improve model performance.

6. Artificial Intelligence in Diagnostic Imaging Enhancing Patient Care Through Advanced Algorithms and Data Integration

Shazia Hassan

Abstract— This paper presents a comprehensive overview of how artificial intelligence (AI) is revolutionizing diagnostic imaging through advanced machine learning and deep learning techniques. It explores the fundamental principles behind AI innovations—including traditional methods like Support Vector Machines and Random Forests, as well as deep learning models such as convolutional neural networks and transformer-based architectures—and their applications in detecting, classifying, and segmenting medical images. The discussion extends to the critical role of data curation, performance evaluation, and emerging strategies like transfer learning and multi-task learning in enhancing model robustness and generalizability. In addition, the paper reviews AI applications across various imaging modalities, including radiography, CT, MRI, ultrasound, and nuclear medicine, while highlighting key clinical tasks and use cases such as automated detection, segmentation, diagnosis, and workflow optimization. Finally, it examines the technical, operational, and regulatory challenges associated with integrating AI into clinical workflows, emphasizing the need for rigorous validation, compliance with international and national standards, and transparent risk management. Together, these insights underscore AI's transformative potential to improve diagnostic accuracy, streamline clinical decision-making, and ultimately enhance patient outcomes.

7. A Causal Analysis of AI Powered Metaverse Adoption Barriers in SMEs

Ashish Trivedi

Abstract—The Metaverse, powered by Artificial Intelligence (AI), is emerging as a transformative digital space for businesses. While large enterprises are leveraging Metaverse applications to enhance customer engagement, optimize operations, and improve business models, Small and Medium Enterprises (SMEs) face significant barriers to adoption. This study employs the Decision-Making Trial and Evaluation Laboratory (DEMATEL) technique to analyze the interrelationships among these barriers. Key challenges include high implementation costs, lack of digital infrastructure, data security concerns, and limited consumer adoption. The DEMATEL approach helps classify these barriers into causeand-effect groups, providing insights for policymakers and business leaders to devise targeted solutions for accelerating Metaverse adoption in SMEs.

8. AI-Powered Voice Chatbots in E-Commerce: Enhancing Trust, Customer Care, and Retention

Vibha Trivedi

Abstract— AI-powered chatbots are transforming online business communication, offering innovative solutions to enhance customer interactions. This study explores how the voice mode of chatbot technology influences consumers' continuance intention toward e-commerce websites. Specifically, it examines the role of perceived technological optimism, cognition-based trust, and perceived customer care. A 2x2 factorial design was employed for a between-subjects laboratory experiment, with ANOVA used to compare treatment effects, followed by analysis using Hayes PROCESS Macro in SPSS. Consumers prefer voice-enabled chatbots or text-based ones when seeking service assistance would be explored. Since the voice mode enhances their sense of control, fosters cognition-based trust and improve their perception of customer care by ultimately increasing their likelihood of continued engagement with the website; there are a few expected results. From a business perspective, the study highlights how firms can optimize resources by focusing on customer retention rather than costly new

acquisitions. The key takeaway: Implementing voice-enabled chatbot technology allows customers greater autonomy in interactions, strengthening trust and long-term engagement with the platform.

9. AI-Based Software Application Planner :zoom

Veena Bhende, Kamna Bhadoriya, Subodh Ghonge, Aryan Kadam and **Yash Kalange**

Abstract: AI planning aims to automate goal-oriented tasks through structured methodologies. While traditional AI tools demonstrate significant capabilities, they often encounter challenges in practical real-world applications. To overcome these limitations, we propose a service-oriented planning architecture that organizes AI planning functionalities into modular and reusable components. Our system automates project architecture design based on user inputs, employing algorithms such as decision trees to recommend optimal technology stacks. Users benefit from customized architectural diagrams that facilitate the visualization of system structures and technology selections. By integrating bespoke AI models, our platform enhances vague project descriptions, generates comprehensive project roadmaps, and provides real-time adjustments to project plans.

10. DEEP LEARNING BASED ACCURATE PHISHING URL DETECTION FRAMEWORK :zoom

Muhamad Usman and Sajjad Jalil

Abstract: Phishing attacks often rely on deceptive URLs that mimic legitimate websites to trick users into divulging sensitive information. Traditional methods for detecting phishing URLs are based on heuristics and manual analysis, which are time-consuming and often ineffective. In recent years, deep learning has shown promising results in various cybersecurity applications, including phishing URL detection. However, the recent methods do not provide any information about appropriate hyper-parameter settings for detection of phishing that can enhance the efficiency of the model. In this paper, we propose a deep learning model for detecting phishing URLs based on comparing three state-of-the-art DeepNet approaches with three state-of-the-art ShallowNet models using convolutional neural networks (CNNs) and long short-term memory (LSTM). We first preprocess the URLs and represent them as numerical vectors using word embedding techniques. We then feed these vectors to a feature selection model, which extracts best 30 features from URLs. We introduce a feature selection method based on the mutual information criterion to improve the model's performance. The model is trained on a large and different set of benchmark datasets of phishing and legitimate URLs, and we evaluate its performance on a separate test set. Our experiments show that the proposed model achieves high accuracy, precision, recall, and F1-score in detecting phishing URLs. We also compare our model with several past approaches that utilizes the same datasets, which resulted that our model outperforms the past models in terms of both accuracy and speed. Overall, our proposed deep learning approach shows great potential in detecting phishing URLs and can be used as an effective tool in protecting users from phishing attacks. The experimental evaluation demonstrate that our model outperforms other approaches by achieving an accuracy of 98.20%, 98.7% precision, 99.0% F1-score and 2.9% False positive rate (FPR).

11. NutriRAG: Personalized and Sustainable Smoothie Generation for Metabolic Disease Management :zoom

Anand K. Gavai and Jos van Hilleberg

Abstract: While AI has shown promise in dietary recommendations, existing systems often lack personalization and evidence-based validation for chronic disease management. This study presents an innovative AI-driven dietary recommendation system that leverages Retrieval Augmented Generation (RAG) to create customized smoothie recipes for people with obesity and type 2 diabetes. The system uniquely combines the generative capabilities of large language models (LLaMA3) with real-time data integration through the USDA's FoodData Central API, while incorporating the Dutch dietary guidelines (RIVM) and the European Food Information Council's (EUFIC) seasonal food database. Our approach implements a robust multi-stage algorithmic validation pipeline: (1) automated nutritional compliance verification against RIVM guidelines for macronutrient balance and glycemic control, with real-time nutrient calculations via USDA's API, (2) ingredient compatibility and seasonal availability assessment using EUFIC's European seasonal food database, and (3) sustainability scoring based on local sourcing and environmental impact metrics. A custom validation algorithm ensures each generated recipe strictly adheres to RIVM's dietary guidelines, automatically flagging and filtering out non-compliant recipes based on predefined nutritional thresholds and constraints. Each recipe generation is accompanied by an explainable AI component that provides detailed reasoning for ingredientselection, highlighting specific health benefits and nutritional contributions of each component to the overall therapeutic goals. The system's web application interface facilitates personalization through user inputs including age, BMI, dietary preferences, and health conditions, generating real-time recipe recommendations with detailed nutritional breakdowns. Each recommendation includes an interactive explanation module that helps users understand why specific ingredients were chosen, their nutritional impact, and how they align with the user's health goals. For instance, the system might explain how a particular berry variety was selected for its low glycemic index and high antioxidant content,

or why certain ingredient combinations enhance nutrient absorption. The RAG architecture, coupled with real-time USDA data access and algorithmic validation, ensures that every generated recipe meets strict nutritional and therapeutic requirements. This novel integration of explainable AI-driven personalization with automated guideline compliance verification and multiple evidence-based sources (RIVM guidelines, USDA API, and EUFIC seasonality information) represents a significant advance in dietary management tools for chronic diseases, offering healthcare providers and patients a practical, scientifically-grounded, and transparent approach to nutritional therapy.

12. Early EEG Biomarkers of Dyslexia: An AI-Driven Discovery from First-Session Recordings :zoom

Günet Eroğlu et al.

Abstract: Using artificial intelligence (AI) and quantitative EEG (qEEG) data, this paper analyses early electrophysiological signs of dyslexia. Drawing from first-session EEG recordings of 208 youngsters labelled as either dyslexic or neurotypical, we found statistically significant variations in particular brainwave characteristics. Analysis aided by machine learning found strong distinction ($p < 0.001$) for characteristics including beta1 power at O1 (B1_O1), alpha power at O1 (A_O1), and gamma power at P7 (G_P7). These results imply that early screening of dyslexia may be diagnosed even with a single session of EEG and could help future individualised neurofeedback treatments.

Invited Lecture:

14. Artificial Intelligence (AI) and citizen science (CS) :Invited Lecture

Akifumi Ueda Citizen's Science Initiative Japan

Summary (part): Citizen science (CS) is a term made up in the mid-1990s to encompass a diverse public participation in scientific research and knowledge production activities. From community-driven initiatives addressing local concerns to large-scale projects led by environmental scientists, citizen science has gained increasing recognition in recent decades. CS is characterized by citizen educators and scientists working in partnership with civic communities to advance science, foster a broad scientific spirit, and promote democratic participation. ...

15. Fostering Empathy and Enhancing Creativity in Human-AI Agent Dialogues

Masaki Shimada, Shigeru Hosono et al.

Abstract: This article elucidates the process by which empathy is fostered, and creativity is promoted in designers' thoughts through dialogues between AI agents and humans. By constructing a knowledge graph and employing nudge theory-based interactions, empathy is cultivated among dialogue participants, provoking abduction and leading to creative utterances. To verify this hypothetical process, a prototype dialogue environment with AI agents was implemented, and dialogues were conducted according to a specific scenario. The results indicated that empathy was generated in humans interacting with AI agents, and abduction was provoked, suggesting the potential for fostering creative design environments through AI-human collaboration.

16. Learning Tendency Analysis of Scratch Programming Course(Entry Class) for Upper Elementary School Students Based on Bayesian Item Response Theory

Ryota Kozakai, Shoichiro Hara and Yuji Watanabe

Abstract: In this study, we analyzed the results of the scoring of program codes created in the Scratch programming course held by Nagoya City University for Upper Elementary school students who participated on July 15, 2021 (18 students), June 30, 2022 (19 students), and July 6, 2023 (20 students). On the day of the course, each student programmed an entry-level assignment in the Scratch certification textbook provided by the university. The input programs were recorded on Google Drive and shared with the instructor. We analyzed the relationship between correctness and incorrectness of each student's program input on Google Drive using Bayesian Item Response Theory, and confirmed the transition of participants' proficiency levels from year to year, the appropriateness of the questions, and the difficulty level that participants seemed to perceive. From these results, we can confirm the trend of the awareness of Scratch programming in the 2021-2023.

17. Evaluating the Speed Advantage of Urban Elevated Small Vehicle Arterials (SVAs): A Case Study of Chicago, New York City, and San Francisco

Daniel Price

Abstract: This study investigates the potential of urban elevated Small Vehicle Arterials (SVA(s)) to alleviate urban traffic congestion and reduce car dependency. Building upon previous research highlighting the need for further exploration of SVA routing and transit times, this paper presents a rudimentary analysis of three diverse US metropolitan areas: Chicago, New York City, and San Francisco. Using Google Maps data, travel times for automobiles, mass transit, and proposed SVA routes were compared during a Friday evening rush hour. Results indicate that while SVA travel speeds consistently exceed those of mass transit, automobile speeds show greater variability, sometimes exceeding and sometimes falling short of SVA speeds. The findings suggest that while SVA offer a potentially faster alternative in many urban contexts, further research with larger, more robust datasets is needed to fully understand the impact of factors such as city geography, cultural norms, and existing infrastructure on SVA effectiveness. This research highlights the need for future studies to quantify observed average modal speed nuances and identify optimal locations for SVA implementation worldwide.

18. Panchayat Raj Services: A Flutter Based Mobile Application

Amolkumar N. Jadhav, Suraj K. Nikam, **Rohit S. Nikam**, Akash R. Gaikwad, Shubham S. Bandgar

Abstract— The Panchayat Raj Services application is a mobile-based platform designed to enhance the accessibility and efficiency of government services in rural areas. Traditional governance processes in Panchayats often involve bureaucratic delays, lack of transparency, and limited reach. To address these challenges, this application leverages Flutter and Firebase to provide a seamless and user-friendly interface for villagers to access government schemes, documentation services, and grievance redressal mechanisms. By digitizing these processes, the project aims to bridge the gap between rural citizens and local governance. The application incorporates secure authentication, real time database management, and cloud-based services to ensure data integrity, reliability, and scalability. A structured database design enables quick retrieval and processing of user requests, while cloud integration ensures continuous availability of services. Additionally, the application focuses on user experience optimization to accommodate individuals with minimal digital literacy, making e-governance more inclusive and accessible. This research paper explores the system architecture, implementation methodology, challenges faced during development, security considerations, and the overall impact on Panchayat-level governance. By leveraging modern mobile and cloud technologies, the Panchayat Raj Services application aligns with the Digital India initiative, promoting transparency and efficiency in government service delivery. The study also highlights potential enhancements and future scalability for broader adoption across different regions.

19. Temporal variations in frequency of color use relative to position in portrait paintings

Yasuyuki SAITO and Eita Nakamura

Abstract: As the times change, various styles and techniques of paintings have been created, and in recent years, advances in generative AI have made it possible to create very natural and realistic artificial paintings. In this paper, we focus on paintings obtained from WikiArt that are labeled as portrait and self-portrait, divide the canvas of the painting into sections, and focus on the temporal variations in the frequency of color use in each section over the years. The results of the experiments showed that red was used above a certain quantity, green was hardly used at all, and blue had been used less frequently since the 17th century. No significant differences were observed in these characteristics across the years for each section. In the future, when generative AI is used to create portraits, it is conceivable that there will be two possibilities: one is to simulate human creative activities by reflecting these characteristics, and the other is to overturn it by using new methods of using color.

20. Integrated Analytics and Prediction of Heart Disease, Diabetes, and Parkinson's Using Logistic Regression and SVM Models:zoom

Yashodhan Gupta, **Onkar Awate**, Sejal Pawar, Chetan. N. Aher and Sanika Bhalerao

Abstract— Chronic illnesses like diabetes, heart disease, and Parkinson's require early diagnosis for proper management and better health outcomes. This paper introduces an AI-based platform that forecasts the risk of these diseases based on machine learning models. Support Vector Machines (SVM) are used for precise detection of Parkinson's and diabetes, whereas Logistic Regression is used for effective heart disease prediction. SVM model resulted in 78% accuracy in predicting diabetes, and Logistic Regression provided 85% accuracy for heart disease prediction. SVM attained an accuracy of 87% in predicting Parkinson's disease, and it was able to successfully implement intricate pattern identification. Using a user-friendly interface, users are able to enter health data to get real-time accurate predictions, allowing proactive management of health. The integration of sophisticated machine learning algorithms by the system guarantees high accuracy and reliability in disease prediction, with SVM leading in pattern classification for intricate patterns and Logistic Regression offering strong interpretability. Through the minimization of dependence on conventional diagnostic techniques, this

platform supports preventive healthcare, enabling users through actionable insights and early intervention to improve overall healthcare outcomes.

21. Image Caption Generation with Voice:

S.R Pawar, **Smitha Nayak**, Sanika Khaladkar, Tejal Tarde, Sanika Khaladkar, Janhavi Tripathi

Abstract—The ability to analyze and interpret textual/visual data has been revolutionized by artificial intelligence's accelerated development, enabling groundbreaking applications such as automated image caption generation. This research introduces a novel methodology that synergizes cutting-edge machine learning architectures. Convolutional Neural Networks (CNN) extract pivotal visual patterns, whereas Long Short-Term Memory (LSTM) networks orchestrate linguistically coherent descriptions. Central to this architecture, a critical advancement, is Word2Vec integration, enhancing semantic relationship modeling to produce contextually relevant captions. To elevate image comprehension accuracy, the Xception model, renowned for its exceptional detail recognition capabilities, is incorporated. Validation employs industry-standard datasets including MS-COCO, evaluating both caption-image alignment and syntactic fluency. Quantitative assessment leverages multiple established metrics: BLEU, METEOR, CIDER, and ROUGE. Not merely textual outputs, a Text-to-Speech (TTS) system converts descriptions into audible narratives, significantly expanding accessibility for visually impaired populations and auditory learners. Through dual optimization of technical precision and inclusive design, this work advances next-generation AI.

22. Scaling Semantic Categories: Investigating the Impact on the Labeling Performance of Vision Transformers

Harrison Muchnic and **Anthony Lamlelas** et al.

[zoom](#)

Abstract: This study explores the impact of scaling semantic categories on the image classification performance of vision transformers (ViTs). In this specific case, the CLIP server provided by Jina AI is used for experimentation. The research hypothesizes that as the number of ground truth and artificially introduced semantically equivalent categories increases, the labeling accuracy of ViTs improves until a theoretical maximum or limit is reached. Seventeen different image datasets were chosen to test this hypothesis. These datasets were processed through a custom function in Python designed to evaluate the model's accuracy, with adjustments being made to account for format differences between datasets. By exponentially introducing new redundant categories, the experiment assessed accuracy trends until they plateaued, decreased, or fluctuated inconsistently. The findings show that while semantic scaling initially increases model performance, the benefits diminish or reverse after surpassing a critical threshold, providing insight into the limitations and possible optimization of category labeling strategies for ViTs.

23. Simulated Humanity: How Generative AI in Sex Robots Reinforces Objectification [:zoom](#)

Chenhao Li

Abstract: This paper investigates how Generative AI technology, particularly in the development of Sex Robots, intensifies the phenomenon of Sexual Objectification within the framework of Nussbaum's seven features of Objectification. Traditional sex toys and dolls contributed to Objectification mainly on symbolic and cultural levels, but Generative AI drastically expands this by enabling personalized emotional simulation, adaptive responsiveness, and constant customization. This technological shift blurs the boundary between object and person, reinforcing the expectation that real partners should conform to the same controllable, replaceable, and submissive roles that AI companions perform. The paper also highlights the phenomena of reversed objectification, where highly humanlike AI, despite lacking real Autonomy or Subjectivity, is treated as if it were a person — further eroding respect for real individuals. Ultimately, rather than reducing sexual violence, this normalization of Objectification risks embedding harmful attitudes deeper into culture, challenging the ethical foundations of gender equality and human dignity in an era increasingly shaped by AI technologies.

Supporting Companies:

We thank to the supporting companies, Pleasanter, Implem Co., Ltd., SKELETHOS, conferencealerts, EasyChair, Stripe.

Also, miyagi Michio Funds, Timee...

We, the committee, would like to express our sincere gratitude to the companies that cooperated with this conference.

Pleasanter has allowed us to use the venue “Pleasanter Lounge”, and has also kindly agreed to use it for an extended period of three days. In addition, the Director and Head of Marketing, and the creators in the Marketed Design Department have kindly helped with venue arrangements and support.

<https://pleasanter.org>



SKELETHOS has decided to have two keynote speakers participate. The keynote will be a launching declaration that will develop and summarize important ideas on AI and ethics.

<https://www.skelethos.com/>



ICAITD
2025
Tokyo



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