

AI News Digest

05/11/2026 - 05/17/2026

WEEKLY DIGEST: COMPUTING & INFORMATION ENGINEERING

AI Innovations Drive Research and Healthcare Advancements

Recent developments in AI are significantly enhancing research capabilities and healthcare applications. The introduction of benchmarks like SocialReasoning-Bench aims to evaluate AI agents' social reasoning, while generative AI is being leveraged to improve cognitive processes in healthcare. Additionally, the Co-Scientist AI tool is accelerating research in various fields, including aging and infectious diseases. These advancements highlight the growing intersection of AI technology with critical sectors.

KEY FINDINGS

- ✓ SocialReasoning-Bench evaluates AI agents in social contexts like Calendar Coordination and Marketplace Negotiation.
- ✓ Generative AI is enhancing cognitive processes in healthcare, acting as a cognitive companion.
- ✓ The Co-Scientist AI tool is being utilized to generate hypotheses in aging research and infectious disease mechanisms.

IMPLICATIONS

- Improved AI benchmarks could lead to more trustworthy and effective AI agents.
- Generative AI's role in healthcare may revolutionize decision-making and patient outcomes.
- The Co-Scientist tool could accelerate scientific discovery across various disciplines.

1. SocialReasoning-Bench: Measuring whether AI agents act in users' best interests

Category: Research

Departments: Computer Science, Political Science & Public Administration, Economics & Finance

Topics: AI Ethics, Social Reasoning, Negotiation Skills, Benchmarking AI Agents

Impact Score: 27.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 4

Interdisciplinary Potential: 4

Ethical / Policy Implications: 5

The article introduces SocialReasoning-Bench, a benchmark designed to evaluate the social reasoning capabilities of AI agents in two specific contexts: Calendar Coordination and Marketplace Negotiation. The benchmark assesses agents based on their ability to negotiate effectively on behalf of users, measuring both the optimality of outcomes (value secured for the user) and the due diligence of the decision-making process. Current AI models often complete tasks but tend to accept suboptimal outcomes, indicating a significant gap in their negotiation skills. The research highlights the importance of social reasoning in AI agents, drawing parallels to traditional principal-agent relationships in fields like law and economics, and emphasizes the need for AI agents to adhere to similar standards of care and loyalty.

<https://www.microsoft.com/en-us/research/blog/socialreasoning-bench-measuring-whether-ai-agents-act-in-users-best-interests/>

2. Generative AI as a Tool for Revolution of AI-Powered Healthcare App: Theory, Design, and Cognitive Impact Assessment

Category: Research

Departments: Computer Science, Nursing, Public Health Sciences, Educational Leadership

Topics: Healthcare AI, Cognitive Companion Systems, Intelligent Summarization, Bias Mitigation in AI, Evaluative Framework for AI Ethics

Impact Score: 27.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 4

Interdisciplinary Potential: 4

Ethical / Policy Implications: 5

This study examines the role of Generative Artificial Intelligence (AI) in enhancing cognitive processes within healthcare settings. It highlights how generative AI systems can serve as cognitive companions, improving decision-making and reasoning through intelligent summarization and reflective engagement. The research emphasizes the importance of designing these systems to mitigate bias and opacity while fostering trust and transparency. Ultimately, the study aims to establish an evaluative framework for assessing the cognitive amplification and ethical implications of generative AI in clinical environments.

<https://wpcms.computer.org/publications/tech-news/trends/generative-ai-powered-healthcare>

3. Computing's Top 30: Li Yang

Category: Research
Departments: Computer Science, Electrical & Computer Engineering
Topics: AI Ethics & Safety, Robustness in AI Systems, Automation and AutoML, Cybersecurity in AI, Resource-Aware AI Systems

Impact Score: 27.0

Rubric Scores

Research Relevance: 5	Educational Value: 4	Innovation / Novelty: 5
Practical Impact: 5	Interdisciplinary Potential: 4	Ethical / Policy Implications: 4

Li Yang, an Assistant Professor at Ontario Tech University, has been recognized as one of the IEEE Computer Society's Computing Top 30 Early Career Professionals for 2025 due to his contributions to trustworthy, autonomous, sustainable, and secure AI, particularly in cybersecurity and intelligent infrastructure. His research emphasizes the importance of robustness, adaptability, and security in AI systems, advocating for the use of automation and AutoML to facilitate broader adoption of AI technologies. Yang's work has been acknowledged through various accolades, including a Best Paper Award at the ACM CCS 2024 and inclusion in Stanford and Elsevier's World's Top 2% Scientists list for 2024 and 2025. He aims to advance AI development by focusing on practical deployment and resource-aware systems in real-world applications.

<https://wpcms.computer.org/publications/tech-news/insider-membership-news/top-30-yang>

4. Conference: The AI-BRIDGES Symposium: Bridging Institutions, Open Knowledge, and AI

Category: Applications
Departments: Computer Science, Political Science & Public Administration, Educational Leadership
Topics: AI Policy & Regulation, Open Knowledge Integration, Collaborative Data Sharing, Institutional Data Reuse, Community-Governed Data

Impact Score: 27.0

Rubric Scores

Research Relevance: 4	Educational Value: 5	Innovation / Novelty: 4
Practical Impact: 5	Interdisciplinary Potential: 5	Ethical / Policy Implications: 4

The AI-BRIDGES Symposium aims to address the challenges of sharing and reusing institutional data by fostering collaboration among institutions, Open Knowledge communities, technologists, researchers, and funders. The event will focus on enhancing contributions to open knowledge platforms like Wikidata, which have demonstrated the potential of structured and collaboratively maintained data. Participants will engage in hands-on learning and expert dialogue to explore solutions for integrating AI technologies with open, community-governed data. This initiative seeks to improve access to and the utility of valuable institutional data in the context of rapidly evolving AI platforms.

<https://digitalhumanitiesnow.org/2026/05/the-ai-bridges-symposium-registration-open-ai-bridges/>

5. GridSFM: A new, small foundation model for the electric grid

Category: Applications

Departments: Electrical & Computer Engineering, Computer Science, Industrial, Manufacturing & Systems Engineering

Topics: AI Hardware, AC Optimal Power Flow, Grid Congestion Analysis, Renewable Energy Optimization, Foundation Model for Power Grids

Impact Score: 26.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

Microsoft has introduced GridSFM, a lightweight foundation model designed to approximate AC optimal power flow (AC-OPF) in transmission power grids within milliseconds. This model addresses the computational challenges associated with AC-OPF, which traditionally requires significant time to solve, thus enabling operators to evaluate a greater number of scenarios in real time. GridSFM can produce full AC system states, enhancing visibility into grid congestion and stability, and has the potential to impact up to \$20 billion annually in congestion costs and reduce renewable energy curtailment by 3.4 TWh. The model is available in two tiers: GridSFM-Open for research-scale grids up to 4,000 buses and GridSFM-Premier for production-scale systems up to 80,000 buses.

<https://www.microsoft.com/en-us/research/blog/gridsfm-a-new-small-foundation-model-for-the-electric-grid/>

6. Finding the molecular switches behind new infectious diseases

Category: Research

Departments: Biological Sciences, Computer Science, Public Health Sciences

Topics: Healthcare AI, Molecular Switch Identification, Protein Target Discovery, Pathogen-Induced Disease Research

Impact Score: 26.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

Professor Clare Bryant at the University of Cambridge is utilizing the AI tool Co-Scientist to identify molecular switches responsible for severe diseases, such as sepsis, that arise when pathogens transfer from animals to humans. By inputting her grant proposal into Co-Scientist, she received a ranked list of hypotheses, including novel protein targets that had not previously been considered. This iterative process has allowed her team to refine their focus down to specific amino acids for experimental testing, significantly accelerating their research timeline from two to three years to potentially six months. The project aims to enhance understanding of pathogen-induced diseases and develop preventive strategies.

<https://deepmind.google/blog/finding-the-molecular-switches-behind-new-infectious-diseases/>

7. Opening new paths in aging research

Category: Research

Departments: Biological Sciences, Public Health Sciences, Computer Science

Topics: Healthcare AI, Aging Research, Hypothesis Generation, Integrated Stress Response, Literature Synthesis Tool

Impact Score: 26.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 4

Interdisciplinary Potential: 5

Ethical / Policy Implications: 3

At Calico Life Sciences, researchers are utilizing the AI tool Co-Scientist to synthesize disparate findings in the biology of aging, aiming to generate testable hypotheses. The tool has demonstrated effectiveness in filtering through the complexities of existing literature, leading to the formulation of a novel hypothesis regarding the regulation of the integrated stress response (ISR) by metabolism, which varies with age and disease. This hypothesis was further refined through interactions with Co-Scientist, resulting in experimental designs that yielded new findings about ISR's implications for health and disease. The team intends to publish these results, contributing to the understanding of aging-related biological processes.

<https://deepmind.google/blog/opening-new-paths-in-aging-research/>

8. Accelerating discovery of liver disease mechanisms

Category: Research

Departments: Biological Sciences, Nursing, Public Health Sciences, Computer Science

Topics: Healthcare AI, Combination Therapies, NLRP3 Inflammasome, Metabolic Dysfunction, Hypothesis Generation

Impact Score: 26.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 4

Interdisciplinary Potential: 5

Ethical / Policy Implications: 3

At the University of Edinburgh, bioengineer Filippo Menolascina utilized the AI tool Co-Scientist to analyze biomedical literature and generate new hypotheses related to metabolic dysfunction-associated steatohepatitis (MASH). The research addressed the complexity of MASH, which involves multiple biological processes, making single-target drug development inadequate. Co-Scientist synthesized relevant evidence and identified potential combination therapies, including a hypothesis linking the NLRP3 inflammasome to the interplay between inflammation and metabolism in MASH. This hypothesis was experimentally verified and may inform the development of targeted dual-therapies for affected patients.

<https://deepmind.google/blog/accelerating-discovery-of-liver-disease-mechanisms/>

9. Co-Scientist: A multi-agent AI partner to accelerate research

Category: Research

Departments: Biological Sciences, Computer Science, Public Health Sciences, Pharmaceutical Sciences

Topics: Generative AI, Multi-Agent Systems, Hypothesis Generation, Antimicrobial Resistance, Plant Immunity

Impact Score: 26.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 4

Interdisciplinary Potential: 5

Ethical / Policy Implications: 3

A new multi-agent AI system called Co-Scientist has been introduced to assist researchers in generating and refining scientific hypotheses, as detailed in a recent publication in Nature. Developed collaboratively by Google DeepMind, Google Research, Google Cloud, and Google Labs, this system aims to address the challenges of hypothesis generation in the life sciences and other fields. The Co-Scientist tool is designed to iteratively create, debate, and evolve hypotheses for complex scientific problems and will be made available to individual researchers through an experimental tool called Hypothesis Generation. Initial applications of the system have focused on issues such as antimicrobial resistance, plant immunity, and liver fibrosis.

<https://deepmind.google/blog/co-scientist-a-multi-agent-ai-partner-to-accelerate-research/>

10. Bosch, Researchers Develop AI for Humanoid Dexterity

Category: Research

Departments: Computer Science, Industrial, Manufacturing & Systems Engineering, Electrical & Computer Engineering

Topics: Robotics, Humanoid Dexterity, Reinforcement Learning, Tactile Sensing, Multi-View Vision

Impact Score: 26.0

Rubric Scores

Research Relevance: 5

Educational Value: 4

Innovation / Novelty: 5

Practical Impact: 5

Interdisciplinary Potential: 4

Ethical / Policy Implications: 3

Researchers at the Bosch Center for AI and Carnegie Mellon University have developed the Humanoid Transformer with Touch Dreaming (HTD), an AI system designed to enhance the dexterity of humanoid robots. HTD enables robots to predict touch and force outcomes, facilitating improved planning and execution of tasks that require whole-body coordination and advanced object manipulation. The system employs reinforcement learning, tactile sensing, multi-view vision, and proprioception, achieving a 90.9% increase in task success rates across five real-world manipulation tasks. Future work will focus on scaling HTD's learning framework and expanding its applications to various environments, including household and industrial settings.

<https://aibusiness.com/robotics/bosch-researchers-develop-ai-humanoid-dexterity>