

Preface

Recent technological developments such as generative artificial intelligence (GenAI) and advanced robotics have raised controversial sociotechnical problems.

The project team designed a compliant foot/wheel mechanism for a human hybrid robot for naval research in conditions unsafe for humans. Sub teams have designed a joystick controller system and prototyped foot/wheel designs. Motor integration is complete, and the robot can navigate on basic terrain. Future project teams may scale the power supply to create wireless control.

The recent proliferation of GenAI introduces extraordinary opportunities but also introduces problems of safety, employment rights, intellectual property, and algorithmic bias. Social groups disagree about how best to respond. Some perceive GenAI as overwhelmingly beneficial and consider most warnings alarmist. Others contend that substantial social harm has already occurred, and that regulation is overdue. A third category perceives GenAI as a future existential threat to humanity. Social groups compete to influence perceptions of and responses to such risks. Engaged groups include the Center for Human-Compatible Artificial Intelligence, the Algorithmic Justice League, the Writers Guild of America and the Computer and Communication Industry Association.