Responsible Design of Future AI Technologies Fostering Social Connectivity

This research examines the growing use of Altechnologies in social connectivity through the lens ofresponsibleAI.TheprojectaimedtoexplorethefuturedevelopmentofAItechnologiesinsocial contexts and investigate how these technologies can be designed responsibly for young adults, withafocusontheirvalues. The primary objective was to generate design implications that would guide designers in the responsible creation of AI technologies that foster social connectivity.

To achieve this, the research undertook a thorough review of theoretical data to, (1) define social connectivity and its significance, (2) investigate current and emerging trends in AI technologies within social contexts, and (3) examine responsibility and the relevant guidelines for responsible AI. Based on the insights gained, the project focus was refined to concentrate on the responsible development of personal AI virtual assistants that enhance interpersonal social connectivity amongst young adults. The in-depth theoretical analysis culminated in the development of the "Framework for Designing Responsible AI Virtual Assistants for Social Connectivity," which connected the explored topics and contextual values to the trends observed in AI virtual assistants and their potential social effects.

Building on these insights, the values of young adults pertinent to AI in the social domain were identified and elicited through design experiments. The research employed a combination of Speculative Critical Design and Value Sensitive Design approaches to effectively design, plan, and execute these experiments.

Ultimately, by identifying, eliciting, and defining relevant values, the research generated design implications in the form of nine value pyramids to guide responsible AI development. The research discovered nine values that young adults uphold regarding AI-fostered interpersonal connectivity: Human Agency and Oversight, Privacy and Data Governance, Transparency, Societal and Environmental Wellbeing, Personal Effort, Human-Human Connectivity, Genuity and Authenticity, Personalization, and Emotional Connectivity. These values were crucial in generating "Implications for Design," where each value was contextually defined and expanded into value principles and design norms, following Van De Poel's (2013) Hierarchy of Values. This study ultimately generated design implications intended to guide designers in the responsible creation of future AI virtual assistants that foster interpersonal social connectivity.

Noor-ul-Ain Javed Responsible Design of Future AI Technologies Fostering social Connectivity August 28th, 2024 Design for Interaction

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The Birthday Wish

Lisa became one of her closest friends. As they grew older, life took them on different paths. Anna moved to another city for graduate studies, and later, Lisa moved abroad for a new job.

they both made an effort to stay connected. As their lives grew more hectic, Anna started using her Digital Twin

Assistant (DTA) to help maintain their connection.

social media interactions. With this information, the DTA learned about their deep bond and automatically generated a personalized, heartfelt birthday wish for Lisa every year. Anna can review and approve the birthday wish before the DTA sends it on her behalf, ensuring Lisa feels loved and remembered on her special day.

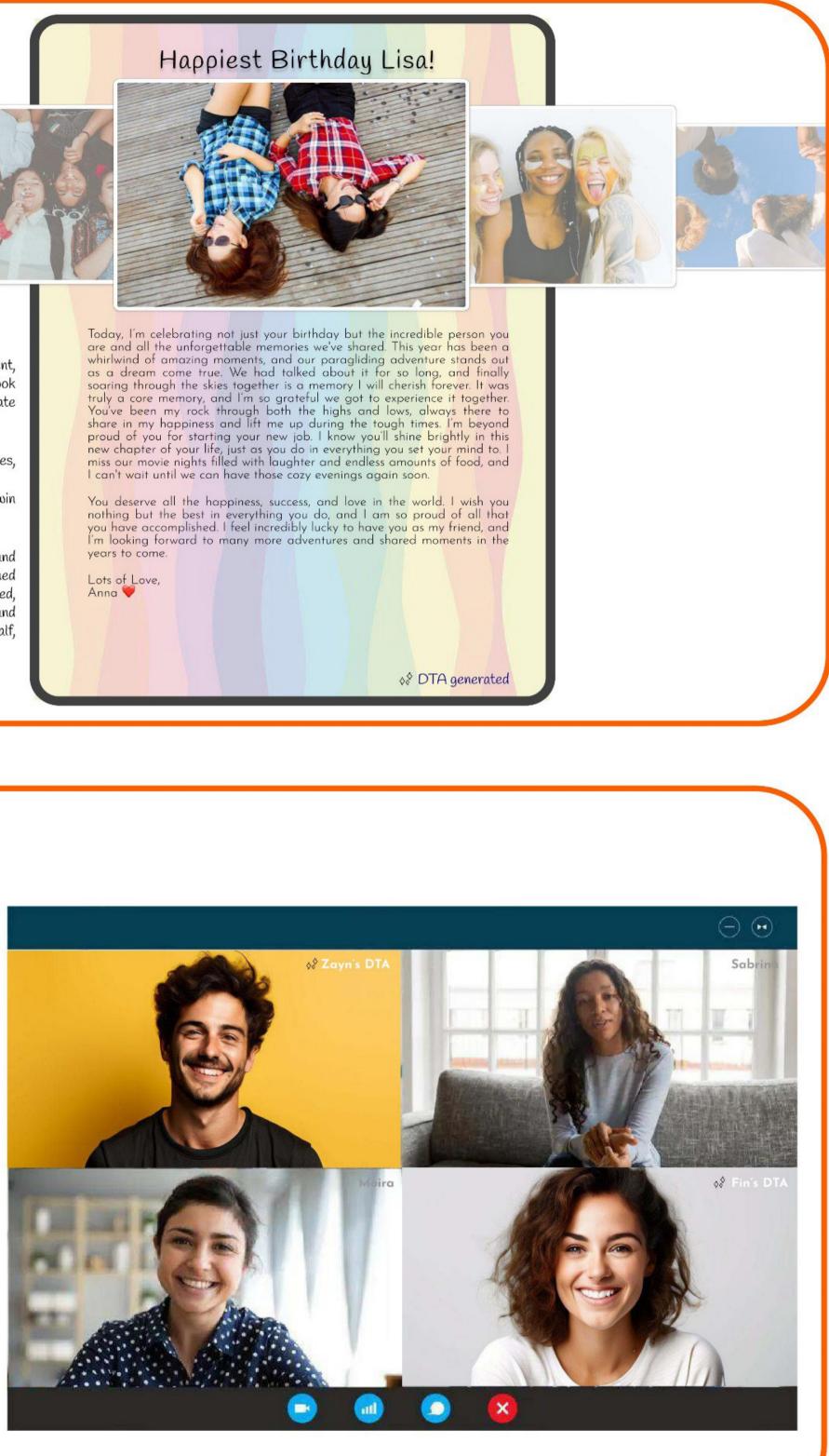
group call to plan their long-anticipated hiking trip to the mountains. At the last minute, personal and work emergencies prevented Zayn and Fin from joining, so they had their Digital Twin Assistants (DTAs) take their place in the group call.

planning. Everyone shared their thoughts on which trail they preferred. Zayn's and Fin's DTAs represented their thoughts, ideas, and opinions to their best abilities.

choosing the easier trail, as Zayn enjoys steeper and more challenging hikes. Moira reminded the group that Zayn had mentioned wanting a more relaxed hike this year, though Zayn's DTA insisted on his usual preference for intense trails.

Meanwhile, Fin's DTA advocated for the riverside trail, appreciating its scenic beauty. Sabrina and Moira also voiced discussion.

certain points. For the remaining decisions, Sabrina and Moira agreed to wait for Zayn and Fin to get back to them after receiving the call summary from their respective DTAs.



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