Luis Martín Sánchez Adame

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Born: November 14, 1990—Victoria de Durango, Durango, Mexico.
Nationality: Mexican.
Marital status: single, no children.

Areas of Specialisation

User Interface Design; Usability; User Experience; Digital Companions; Human-Computer Interaction.

Areas of Interest

Architecture; Industrial Design; Graphic Design; Human Factors & Ergonomics; Epistemology; Digital Rights; Privacy & Security; *Shoah* Studies.

Education

2017-2021 PhD in Computer Science, CINVESTAV-IPN.

Thesis title: "*Epistemology of Anticipated User Experience: Task, User and Heuristic Approaches.*"

Advisors: Dr. Sonia Guadalupe Mendoza Chapa & Dr. Beatriz Adriana González Beltrán.

2013-2016 MSc in Computer Science, CINVESTAV-IPN.

Thesis title: "*Coherence Heuristics for the Design of Meta-user Interfaces.*"

Advisor: Dr. Sonia Guadalupe Mendoza Chapa.

2008-2013 BSc in Computer Engineering, Instituto Tecnológico de Durango.

Appointments Held

2024   FULL-TIME ASSOCIATE PROFESSOR "C" at the Acatlán Faculty of Higher Studies, Universidad Nacional Autónoma de México.

2022-2024   LECTURER at the University Centre Valle de México, Universidad Autónoma del Estado de México.

Honours & Awards

2023-2026   CANDIDATE level in the "Sistema Nacional de Investigadores" (National System of Researchers) - CONACyT.

2022   FIRST PLACE in the "José Negrete" national award for the best PhD thesis developed in some field of Artificial Intelligence, granted by the Mexican Society of Artificial Intelligence (SMIA).

Publications

PAPERS PUBLISHED IN JOURNALS INDEXED IN THE *JOURNAL CITATIONS REPORT*

2023   **Sánchez-Adame, Luis Martín**, Monroy-Rodríguez, G., Mendoza, S., Decouchant, D., & Mateos-Papis, A. P. (2023). Framework for ethically designed microtransactions in the metaverse. *IEEE Access*, *11*, 140687–140700. https://doi.org/10.1109/ACCESS.2023.3341057

2022   Mendoza, S., **Sánchez-Adame, Luis Martín**, Urquiza-Yllescas, J. F., González-Beltrán, B. A., & Decouchant, D. (2022). A model to develop chatbots for assisting the teaching and learning process. *Sensors*, *22*(15). https://doi.org/10.3390/s22155532

2022   Urquiza-Yllescas, J. F., Mendoza, S., Rodríguez, J., & **Sánchez-Adame, Luis Martín**. (2022). An approach to the classification of educational chatbots. *Journal of Intelligent & Fuzzy Systems*, *43*(4), 5095–5107. https://doi.org/10.3233/JIFS-213275

2021   Mendoza, S., Cortés-Dávalos, A., **Sánchez-Adame, Luis Martín** & Decouchant, D. (2021). An architecture for collaborative terrain sketching with mobile devices. *Sensors*, *21*(23). https://doi.org/10.3390/s21237881

2021   **Sánchez-Adame, Luis Martín**, Mendoza, S., Urquiza, J., Rodríguez, J., & Meneses-Viveros, A. (2021). Towards a set of heuristics for evaluating chatbots. *IEEE Latin America Transactions*, *19*(12), 2037–2045. https://doi.org/10.1109/TLA.2021.9480145

2020   **Luis Martín Sánchez-Adame**, Urquiza-Yllescas, J. F., & Mendoza, S. (2020). Measuring anticipated and episodic ux of tasks in social networks. *Applied Sciences*, *10*(22), 8199. https://doi.org/10.3390/app10228199

Papers Published in Proceedings of Peer-Reviewed International Conferences

2024   Urquiza-Yllescas, J. F., Mendoza, S., **Sánchez-Adame, Luis Martín**, Rodríguez, J., & Decouchant, D. (2024). Towards an architecture for educational chatbots. In P. Zaphiris & A. Ioannou (Eds.), *Learning and collaboration technologies* (pp. 333–351). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-61691-4_22

2024   Monroy Rodríguez, G., Mendoza, S., **Sánchez-Adame, Luis Martín**, Valdespin-Garcia, I. G., & Decouchant, D. (2024). Wearable and pervasive architecture for digital companions in chronic disease care. In N. A. Streitz & S. Konomi (Eds.), *Distributed, ambient and pervasive interactions* (pp. 68–85). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-60012-8_5

2023   Monroy-Rodríguez, G., Mendoza, S., **Sánchez-Adame, Luis Martín**, Valdespin-Garcia, I. G., & Decouchant, D. (2023). Achieve your goal without dying in the attempt: Developing an area-based support for nomadic work. In F. Nah & K. Siau (Eds.), *Hci in business, government and organizations* (pp. 421–438). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-35969-9_28

2023   Monroy-Rodríguez, G., **Sánchez-Adame, Luis Martín**, Mendoza, S., Valdespin-Garcia, I. G., & Decouchant, D. (2023). Towards an interaction design framework for iot healthcare systems. In N. A. Streitz & S. Konomi (Eds.), *Distributed, ambient and pervasive interactions* (pp. 91–104). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-34668-2_7

2020   Mendoza, S., Hernández-León, M., **Sánchez-Adame, Luis Martín**, Rodríguez, J., Decouchant, D., & Meneses-Viveros, A. (2020). Supporting student-teacher interaction through a chatbot. In P. Zaphiris & A. Ioannou (Eds.), *Learning and collaboration technologies. human and technology ecosystems* (pp. 93–107). Springer International Publishing. https://doi.org/10.1007/978-3-030-50506-6_8

2020   **Sánchez-Adame, Luis Martín**, Mendoza, S., González-Beltrán, B. A., Meneses-Viveros, A., & Rodríguez, J. (2020). The man in the besieged castle: Heuristic evaluation of home security systems. In A. Moallem (Ed.), *Hci for cybersecurity, privacy and trust* (pp. 250–260). Springer International Publishing. https://doi.org/10.1007/978-3-030-50309-3_17

2019   **Sánchez-Adame, Luis Martín**, Mendoza, S., Meneses Viveros, A., & Rodríguez, J. (2019). Towards a set of design guidelines for multi-device experience. In M. Kurosu (Ed.), *Human-computer interaction. perspectives on design* (pp. 210–223). Springer International Publishing. https://doi.org/10.1007/978-3-030-22646-6_15

2019   **Sánchez-Adame, Luis Martín**, Mendoza, S., Viveros, A. M., & Rodríguez, J. (2019). Consistency in multi-device environments: A case study. In K. Arai, R. Bhatia & S. Kapoor (Eds.), *Intelligent computing* (pp. 232–242). Springer International Publishing. https://doi.org/10.1007/978-3-030-22871-2_17

2018   **L. M. Sánchez-Adame**, Mendoza, S., González-Beltrán, B. A., Rodríguez, J., & Viveros, A. M. (2018b). Aux and ux evaluation of user tools in social networks. *2018 IEEE/WIC/ACM International Conference on Web Intelligence (WI)*, 104–111. https://doi.org/10.1109/WI.2018.0-101

2018 **L. M. Sánchez-Adame**, Mendoza, S., González-Beltrán, B. A., Rodríguez, J., & Viveros, A. M. (2018a). Ux evaluation over time: User tools in social networks. *2018 15th International Conference on Electrical Engineering, Computing Science and Automatic Control (CCE)*, 1–6. https://doi.org/10.1109/ICEEE.2018.8533950

2018 **Sánchez-Adame, Luis Martín**, Mendoza, S., González-Beltrán, B. A., Meneses Viveros, A., & Rodríguez, J. (2018). Towards an aux evaluation framework for user tools in virtual communities. In A. Rodrigues, B. Fonseca & N. Preguiça (Eds.), *Collaboration and technology* (pp. 25–33). Springer International Publishing. https://doi.org/10.1007/978-3-319-99504-5_3

Patents

Granted

2023 Mendez García, D., Mendoza Chapa, S. G., González Beltrán, B. A., **Sánchez Adame, Luis Martín**, Meneses Viveros, A., & Rodríguez García, J. G. (2023). Sistema y método para generar una interfaz de usuario multimodal en múltiples dispositivos de cómputo que conforman espacios interactivos [Patent Title No. 407001 (10/10/2023 – 22/10/2039)]. https://vidoc.impi.gob.mx/visor?usr=SIGA&texp=SI&tdoc=E&id=MX/a/2019/012611

Solicited

2020 Decouchant, D., **Sánchez Adame, Luis Martín**, Hernández León, M., & Mendoza Chapa, S. G. (2020). Sistema de chatbot inteligente basado en modelos cognitivos [Patent Application MX/a/2020/013949 https://vidoc.impi.gob.mx/visor?usr=SIGA&texp=SI&tdoc=E&id=MX/a/2020/013949]

Science Outreach

2024 **Sánchez Adame, Luis Martín** & Mendoza, S. (2024). El metaverso: Frágil promesa de una utopía digital [Available Online https://avanceyperspectiva.cinvestav.mx/el-metaverso-fragil-promesa-de-una-utopia-digital/]

2023 de la Peña, H. (2023). Retos académicos frente a la inteligencia artificial [Available Online https://conexion.cinvestav.mx/Publicaciones/retos-acad233micos-frente-a-la-inteligencia-artificial]

2023 Martín sánchez, reconocido por la sociedad mexicana de inteligencia artificial [Available Online https://unomasuno.com.mx/martin-sanchez-reconocido-por-la-sociedad-mexicana-de-inteligencia-artificial/]. (2022)

2023 Urquiza-Yllescas, J. F., Mendoza, S., José, R., & **Sánchez Adame, Luis Martín**. (2023). Chatbots: Llegaron para quedarse [Available Online https://avanceyperspectiva.cinvestav.mx/chatbots-llegaron-para-quedarse/]

2022 Conexiones 42: Inteligencia artificial [Available Online https://open.spotify.com/episode/3jtSqRRJbE11Sf2sYz0JJP]. (2022)

2022 Monroy Rodríguez, G., Mendoza, S., & **Sánchez Adame, Luis Martín**. (2022). Un compañero digital al rescate de los pacientes con diabetes [Available Online https://avanceyperspectiva.cinvestav.mx/un-companero-digital-al-rescate-de-los-pacientes-con-diabetes/]

2022 **Sánchez Adame, Luis Martín** & Mendoza, S. (2022). El lenguaje de la experiencia de usuario [Available Online https://avanceyperspectiva.cinvestav.mx/el-lenguaje-de-la-experiencia-de-usuario/]

2022 Mendoza, S., & **Sánchez Adame, Luis Martín**. (2022). Covid-19, el detonador de una pandemia que logró la masa crítica de usuarios de los sistemas colaborativos [Available Online https://avanceyperspectiva.cinvestav.mx/covid-19-el-detonador-de-una-pandemia-que-logro-la-masa-critica-de-usuarios-de-los-sistemas-colaborativos/]

2022 Con realidad aumentada, creativos pueden colaborar fácilmente [Available Online https://conexion.cinvestav.mx/COVID-19/Contenido-COVID-19/con-realidad-aumentada-creativos-pueden-colaborar-f225cilmente]. (2022)

2022 Desarrollan alternativa para procesos de comunicación entre dispositivos inteligentes [Available Online https://conexion.cinvestav.mx/Publicaciones/desarrollan-alternativa-para-procesos-de-comunicaci243n-entre-dispositivos-inteligentes]. (2022)

2022 **Sánchez Adame, Luis Martín**. (2022). Epistemología de la experiencia de usuario anticipada [Available Online https://avanceyperspectiva.cinvestav.mx/epistemologia-de-la-experiencia-de-usuario-anticipada/]

Conference Presentations

2020 *Supporting student-teacher interaction through a chatbot*. HCII 2020. Copenhagen, Denmark. July 24, 2020.

2020 *The man in the besieged castle: Heuristic evaluation of home security systems*. HCII 2020. Copenhagen, Denmark. July 19, 2020.

2019 *Consistency in multi-device environments: A case study*. Computing Conference 2019. London, England. July 16, 2019.

2018 *AUX and UX evaluation of user tools in social networks* . WI 2018. Santiago, Chile. December 4, 2018.

2018 *Towards an AUX evaluation framework for user tools in virtual communities*. CRIWG 2018. Costa da Caparica, Portugal. September 6, 2018.

Alumni & Current Students

Graduate

2021-2023

MSc in Computer Science, Ivan Giovanni Valdespin Garcia, "*Multi-Source Speech and Voice Recognition System Oriented to Digital Companions.*" CINVESTAV-IPN (Co-director: Dr. Sonia Guadalupe Mendoza Chapa).

Undergraduate

2020-2021   BSc in Computer Engineering, Sharon Daniela Balderas Chávez, "*Collaborative drawing web application.*" UAM-Azcapotzalco (Co-advisor: Dr. Beatriz Adriana González Beltrán).

Thesis Jury Member

2023   PhD in Computer Science, José Fidel Urquiza Yllescas, "*Generic Educational Chatbot Architecture to Support the Teaching-Learning Process.*" CINVESTAV-IPN.

2023   PhD in Information Design and Visualisation, Néstor Apolo López González, "*Accesibilidad de las Aplicaciones Móviles. Directivas de Diseño para Interfaces Gráficas Orientadas a Usuarios Adultos Mayores.*" UAM-Azcapotzalco.

2020   MSc in Computer Science, Gabriela Alejandra García Robledo, "*Interfaz de consulta en idioma español para la búsqueda de información en un ambiente académico.*" UAM-Azcapotzalco.

Participation in Research Projects

2018-2021   *Development of an intelligent chatbot to assist the teaching/learning process in educational and technological subjects.* Role: Participant. Funding Agency: SEP-CINVESTAV (Call 2018). Number of project 120. Amount: $396,505 MXN ($\approx$ $19,413.50 USD).

Research Stays

2015   Institution: Laboratoire d'Informatique de Grenoble (LIG), Université Grenoble Alpes, Grenoble, France. Period: June, 15 to July, 15. Advisor: Joëlle Coutaz, Professor Emeritus.

Courses Taught

Undergraduate - BSc in Graphic Design (UNAM)

2024   2D Animation and Digital Audio – 64 hours, February - July term.

2024   Handwriting and Calligraphy – 64 hours, February - July term.

2024   Hypermedia – 64 hours, February - July term.

Graduate - MSc in Computer Science (CINVESTAV-IPN)

2023   Distributed Collaborative Systems – 60 hours, May - August term.

2022   Distributed Collaborative Systems – 60 hours, May - August term.

2023   Artificial Intelligence – 60 hours, August - December term.

2023   Human-Computer Interaction – 60 hours, August - December term.

2023   Computer Graphics – 60 hours, August - December term.

2023   Computer Technologies I – 60 hours, January - June term.

2023   Object Oriented Programming – 60 hours, January - June term.

2022   Artificial Intelligence – 60 hours, August - December term.

2022   Robotics – 60 hours, August - December term.

2022   Computer Graphics (2 groups) – 60 hours, August - December term.

UNDERGRADUATE - BSC IN ADMINISTRATIVE INFORMATICS (UAEM)

2023   Base Software – 60 hours, January - June term.

Program Committee Member

2023   IEEE/WIC International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT) 2023 - Program Committee.

2023   IEEE International Conference on Agents (ICA) 2023 - Program Committee.

2022   15th Colloquium on Research in Science and Technology, UAEMex - Evaluation Committee.

2022-Present   IEEE CTSoc Human-Machine Interaction and User Experience (HMI) - Technical Committee.

2022   14th Colloquium on Research in Science and Technology, UAEMex - Evaluation Committee.

2022   IEEE CTSoc International Conference on Games, Entertainment & Media (GEM) 2022 - Publications Chair.

2018   Regional Consortium for Computing Sciences and their Foundations (RCCS+SPIDTEC2) 2018 - Preliminary Scientific Committee.

2018   International Conference on Computer Networks Applications (ICCNA) 2018 - Technical Program Committee.

2017   International Conference on Computer Networks Applications (ICCNA) 2017 - Technical Program Committee.

Reviewer

Journal *IEEE Access* (80 papers reviewed).
Journal *IEEE Latin America Transactions* (5 papers reviewed).
Journal *Journal of Intelligent & Fuzzy Systems* (3 paper reviewed).

Supervision

2019   *Industrial stay* - Luis Alejandro Pérez Sarmiento. Project supervised: "Chatbot inteligente para asistir el proceso de enseñanza/aprendizaje". From 2 September to 14 December 2019 (600 hours).

2019   *Professional stay* - Hilda Ameyalid Hernández. Project supervised: "Marco de trabajo para el desarrollo de aplicaciones ejecutables en un arreglo irregular de dispositivos móviles". From 2 September to 13 December 2019 (600 hours).

2019   *Professional stay* - Raciel Pacheco Hernández. Project supervised: "Marco de trabajo para el desarrollo de aplicaciones ejecutables en un arreglo irregular de dispositivos móviles". From 2 September to 13 December 2019 (600 hours).

2019   *Professional stay* - Javier Alejandro Regueira Hipólito. Project supervised: "Chatbot inteligente para asistir el proceso de enseñanza/aprendizaje". From 11 February to 14 June 2019 (500 hours).

2018   *Industrial stay* - Luis Alejandro Pérez Sarmiento. Project supervised: "MetaPaint". From 13 to 31 August 2018 (120 hours).

Languages

Spanish - native language.
English - TOEFL ITP: 627 points.
French - FES Iztacala: A1.

Professional Societies

Member of the Institute of Electrical and Electronics Engineers (IEEE).
Member of the IEEE Consumer Technology Society.
Member of the Association for Computing Machinery (ACM).
Member of the ACM's Special Interest Group on Computer Human Interaction (ACM SIGCHI).