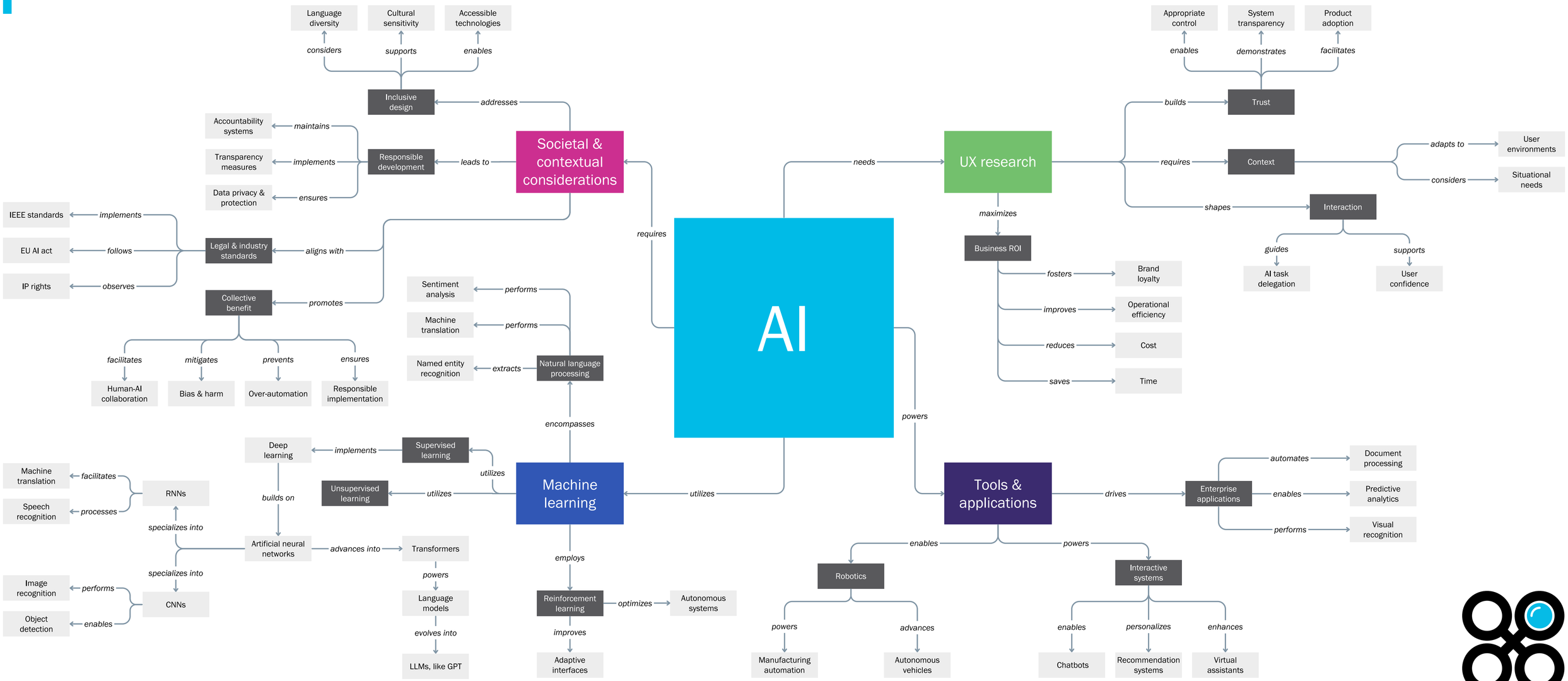
# THE ULTIMATE
# AI AND UX MIND MAP
## FOR 2025

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| | AI & UX | Societal & contextual considerations | Machine learning (ML) | Tools & applications |
|---|---|---|---|---|
| **RESEARCH TOPICS** | • Enhance collaboration between humans and AI by designing intuitive interaction models.<br>• Build trust through transparent designs that clearly communicate AI's capabilities and limitations.<br>• Measure the business impact of integrating AI, focusing on efficiency, cost savings, and user satisfaction. | • Evaluate accessibility of AI systems across user groups, including those with disabilities or limited technical skills.<br>• Test whether AI tools comply with laws and ethical standards to build trust and accountability.<br>• Understand how AI systems and tools need to adapt culturally and linguistically for use across global markets. | • Explore how people interact with ML-powered tools like chatbots, recommendations, and translations in their daily lives.<br>• Understand mental shortcuts people develop when using systems driven by supervised or unsupervised learning.<br>• Investigate how users build trust with AI systems, such as adaptive interfaces or reinforcement learning applications. | • Map how users navigate AI-powered tools in real-world scenarios.<br>• Identify opportunities to balance automation with human oversight for safer and more efficient workflows.<br>• Measure how AI tools impact productivity, reducing repetitive tasks, and improving focus on creative work.<br>• Understand user's preferences for collaboration, decision-making, and emotional connection with AI (within personal and professional domains). |
| **METHODS** | • Test AI interfaces in real-world scenarios to evaluate how well they support user needs.<br>• Use diary studies to track how users engage with AI tools over time and adapt to them.<br>• Validate how effectively AI explains its decisions to users in ways they can easily understand.<br>• Analyze the ROI of AI solutions to link design improvements with measurable business outcomes. | • Facilitate inclusive design workshops that involve diverse stakeholders.<br>• Test AI systems in varied cultural and regional contexts to uncover unique user needs.<br>• Audit AI outputs for biases or unintended consequences that could harm specific groups.<br>• Review AI systems against industry regulations to validate compliance. | • Analyze large user behavior datasets to identify patterns to improve AI models.<br>• Test system outputs with structured experiments (like A/B tests) to ensure they meet user expectations.<br>• Conduct usability studies to understand how people navigate ML-powered features.<br>• Collect feedback directly from users to fine-tune AI-generated results. | • Observe and document how people use AI tools (personally and professionally) through field studies and contextual inquiries.<br>• Collaborate with users in co-design workshops to make tools more intuitive and effective.<br>• Use eye-tracking and other techniques to evaluate attention patterns in AI interfaces.<br>• Analyze task flows to understand where automation helps and where human input is essential. |
| **IMPACT** | • Develop clear, engaging ways to communicate what AI can (and can't) do.<br>• Create systems that adapt to context, providing the correct support level for different environments.<br>• Incorporate trust-building features, like clear feedback and user control, into AI systems. | • Develop AI interfaces that reflect cultural nuances and inclusivity for global audiences.<br>• Build transparent systems for holding AI accountable when things go wrong.<br>• Establish robust testing protocols to promote fairness and safety in real-world applications. | • Create interfaces that adapt intelligently to user behavior for a seamless experience.<br>• Develop ways to measure and improve user trust across different groups.<br>• Adjust ML systems to deliver outputs that are more relevant and intuitive for diverse audiences. | • Design clear handoffs between AI systems and human users to minimize friction and increase adoption and engagement.<br>• Build simple, intuitive controls for complex autonomous systems.<br>• Create pathways for users to recover from errors when AI systems don't perform as expected. |