# AI Landscape Insights for Public Policy (ESAP Lecture Outline)

## AI Policy and Regulation

* **Strong research emphasis on AI governance:** The analysis of 42 AI research papers found **7,558 occurrences** of terms related to AI governance and regulation, focusing on topics like policy, compliance, and oversight[[1]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L31-L35). This indicates a robust evidence base in academic research for developing AI policies and regulatory frameworks[[2]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L132-L135).
* **Policy implications:** Researchers’ heavy focus on governance suggests that policymakers should prioritize creating clear AI strategies and regulations. The European Union’s work (e.g. the upcoming AI Act) provides a model emphasizing **data governance** as foundational to AI policy[[3]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L72-L80). For Colombia’s public sector, this means establishing strong legal and ethical guidelines for AI deployment (e.g. data protection, accountability mechanisms) to ensure AI systems are trustworthy and align with public values.
* **Real-world example (Colombia):** Colombia recently launched its **National AI Policy (CONPES 4144, 2025)**, a comprehensive plan for ethical and sustainable AI development[[4]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=The%20%E2%80%98Pol%C3%ADtica%20Nacional%20de%20Inteligencia,AI%29%20technologies%20through%202030). This policy includes creating new governance structures and updating the 2021 AI ethics framework to keep pace with emerging technologies[[5]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=Core%20components%20of%20the%20strategy,include). It illustrates the country’s commitment to AI regulation and can serve as a case study in how a Latin American nation is proactively setting rules for AI in line with global best practices.

## AI in Healthcare

* **AI as a healthcare priority:** “Health” emerged as the **third most frequent theme** in the AI research corpus (mentioned **1,857 times**)[[6]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L18-L26). In fact, healthcare applications are highlighted as a major part of AI research, falling under the broader “AI Applications” category (which had 2,754 term occurrences including healthcare topics)[[1]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L31-L35). This indicates that a significant portion of AI research is devoted to medical and health-related AI solutions (e.g. diagnostic tools, patient data analytics).
* **Policy and societal impact:** The prominence of healthcare in AI research suggests immediate benefits if leveraged in public policy. Governments can harness AI for improving public health services — for example, predictive analytics for epidemics or AI-assisted diagnostics in hospitals. The analysis recommends treating **healthcare AI as a priority area**, aligning with EU research that sees health tech as high-impact[[7]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L78-L86). For the ESAP audience, this implies that investing in health-related AI (from telemedicine to medical AI devices) could improve service delivery and health outcomes, but will also require regulations to ensure patient safety and equity in access.
* **Example in Latin America:** Across Latin America, health ministries are already exploring AI innovations. **Colombia’s Ministry of Health and Science** is fostering AI use in healthcare, mirroring a regional trend[[8]](https://www.thinkglobalhealth.org/article/health-latin-america-and-promise-artificial-intelligence#:~:text=Awareness%20of%20AI%27s%20potential%20for,for%20the%20region%27s%20urban%20health). One notable case is Brazil’s development of AI-assisted diagnostics in pathology and radiology, which has shown how AI can improve cancer detection and treatment outcomes[[9]](https://www.thinkglobalhealth.org/article/health-latin-america-and-promise-artificial-intelligence#:~:text=AI%27s%20potential%20to%20advance%20diagnostics,the%20region%27s%20shortage%20of%20pathologists). These examples demonstrate the real-world potential of AI in healthcare – from rural telemedicine tools to hospital AI labs – offering lessons that can be adapted in the Colombian context.

## Autonomous Vehicles

* **Emerging focus on autonomous systems:** The research analysis grouped **autonomous driving** under “AI Applications,” noting it as a key applied domain alongside healthcare and education[[1]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L31-L35). While mentions of autonomous vehicles (AVs) were fewer than healthcare in the corpus, their inclusion signals that self-driving technology is a recognized topic in AI research and policy discussions. This suggests that autonomous vehicles are on the radar of AI policymakers, albeit as a growing area rather than a dominant theme.
* **Policy implications:** For public administrators, the rise of autonomous vehicles raises questions about **regulation and infrastructure**. Ensuring safety standards, updating traffic laws, and preparing urban infrastructure for AV testing are crucial steps. The research emphasis on governance implies that proactive policies (like licensing frameworks or pilot programs) should accompany any introduction of self-driving cars. Colombian authorities might consider creating regulatory sandboxes for autonomous transit or joining international working groups on AV standards, so the country isn’t caught unprepared when this technology matures.
* **Example in Latin America:** Latin America has begun experimenting with autonomous vehicles. For instance, **Chile’s first autonomous shuttle pilot** in 2019 was a landmark project – over a 3-month trial in Santiago’s O’Higgins Park, a self-driving electric shuttle carried more than 2,500 users safely over 1,100+ kilometers[[10]](https://www.transdev.com/en/innovation-tech/chile-latin-american-autonomous-vehicle-project-success/#:~:text=Transdev%20Group%E2%80%99s%203,on%20the%20global%20AV%20network)[[11]](https://www.transdev.com/en/innovation-tech/chile-latin-american-autonomous-vehicle-project-success/#:~:text=,days%20up%20to%20413%20passengers). This successful case study, supported by the Chilean Transport Ministry and IDB, put the region on the AV map. It demonstrates both the potential of autonomous transit and the need for local governments to craft policies on vehicle certification, public acceptance, and integration with existing transport systems.

## Algorithmic Fairness

* **Ethics and fairness as key concerns:** The analysis identified an “**AI Ethics & Fairness**” category with **2,534 occurrences** of terms related to bias, fairness, and discrimination[[1]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L31-L35). Although it had the lowest term frequency of the five major areas, the presence of this category shows that researchers are increasingly concerned with **algorithmic bias and transparency**. In other words, ensuring AI systems treat people fairly (regardless of race, gender, or background) is an emerging priority in AI research[[12]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L132-L136).
* **Policy implications:** For a public-sector audience, algorithmic fairness translates into the need for **ethical guidelines and audits** for AI systems used in government services. The relatively lower emphasis in research (compared to technical or governance topics) is a warning that fairness needs more attention – an opportunity for countries like Colombia to take the lead[[13]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L84-L86). Policymakers should require impact assessments for AI deployments (e.g. checking that an AI used for welfare or hiring decisions doesn’t amplify discrimination). Incorporating international principles – such as the **OECD AI Principles** or UNESCO’s AI ethics guidelines – into national policy can provide a framework to keep AI deployments fair and human-centered.
* **Example initiatives:** Colombia’s national AI policy explicitly stresses ethics – it calls for updating the 2021 AI ethics framework and establishing oversight bodies to ensure **responsible AI use**[[5]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=Core%20components%20of%20the%20strategy,include). This includes monitoring algorithms for bias. In a broader Latin American context, we have seen growing awareness of AI fairness, for example in discussions about facial recognition in public security: cities are debating use of AI surveillance due to potential racial biases. These regional dialogues and Colombia’s own policy steps highlight how algorithmic fairness is moving from academia into concrete policy action aimed at protecting citizens’ rights.

## AI and Society

* **AI’s social impact is central:** The HUMAINT research corpus devoted significant attention to **AI and society**, with **6,001 occurrences** of terms around social impact, human factors, and trust in AI[[1]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L31-L35). This indicates that beyond technical aspects, researchers are examining how AI affects people and communities – from public trust in AI systems to the societal changes brought by automation. The analysis even notes that social impact considerations are **“central”** in the discourse, though still only about half as frequent as technical topics[[2]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L132-L135).
* **Implications for public administrators:** The intersection of AI and society means that governments must evaluate how AI technologies influence social structures, equity, and public values. Issues like job displacement due to automation, privacy concerns with surveillance systems, and the digital divide are all part of this theme. The research suggests a need to **balance technological advancement with social well-being**[[14]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L76-L84). For an ESAP audience, this could mean conducting impact assessments for AI projects (e.g. how an AI-driven service might affect vulnerable populations) and engaging citizens in dialogue about AI-driven changes. Public administrators should be prepared to manage both the opportunities (e.g. AI improving education or public safety) and the risks (e.g. ethical dilemmas, public pushback) of AI’s societal influence.
* **Regional perspective and examples:** In Latin America, the societal context of AI is particularly important. Many countries, including Colombia, emphasize that AI initiatives should contribute to **social well-being and inclusion**[[15]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=6,environmental%20sustainability%2C%20and%20economic%20competitiveness). For example, if AI is used in public services like education (adaptive learning systems in schools) or city management (smart city projects in Medellín), officials must ensure these tools are accessible and beneficial across different socio-economic groups. One case to illustrate AI’s social impact is the use of AI for social media monitoring during elections – while it can help flag misinformation, it also raises debates about censorship and free expression in society. Such examples underscore that the success of AI in society will depend not just on technology, but on policy decisions that uphold transparency, equity, and public trust.

**Sources:** The insights above are drawn from an AI landscape analysis of EU HUMAINT research publications[[16]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L29-L35)[[12]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L132-L136), along with relevant policy documents and case studies from Colombia and Latin America. These findings aim to inform and persuade future public administrators that effective AI policy requires a blend of technical evidence and societal perspective, preparing them to harness AI for public good while safeguarding core values.[[4]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=The%20%E2%80%98Pol%C3%ADtica%20Nacional%20de%20Inteligencia,AI%29%20technologies%20through%202030)[[10]](https://www.transdev.com/en/innovation-tech/chile-latin-american-autonomous-vehicle-project-success/#:~:text=Transdev%20Group%E2%80%99s%203,on%20the%20global%20AV%20network)

[[1]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L31-L35) [[2]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L132-L135) [[6]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L18-L26) [[12]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L132-L136) [[16]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/ANALYSIS_SUMMARY.md#L29-L35) ANALYSIS\_SUMMARY.md

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[[3]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L72-L80) [[7]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L78-L86) [[13]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L84-L86) [[14]](https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md#L76-L84) HOW\_TO\_USE\_FOR\_COLOMBIA.md

<https://github.com/carlosdenner-videns/ai-landscape-analysis/blob/526b436694bb6c931a79107b0a727a72c9995182/docs/HOW_TO_USE_FOR_COLOMBIA.md>

[[4]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=The%20%E2%80%98Pol%C3%ADtica%20Nacional%20de%20Inteligencia,AI%29%20technologies%20through%202030) [[5]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=Core%20components%20of%20the%20strategy,include) [[15]](https://dig.watch/resource/colombias-national-ai-policy#:~:text=6,environmental%20sustainability%2C%20and%20economic%20competitiveness) Colombia's national AI policy | Digital Watch Observatory

<https://dig.watch/resource/colombias-national-ai-policy>

[[8]](https://www.thinkglobalhealth.org/article/health-latin-america-and-promise-artificial-intelligence#:~:text=Awareness%20of%20AI%27s%20potential%20for,for%20the%20region%27s%20urban%20health) [[9]](https://www.thinkglobalhealth.org/article/health-latin-america-and-promise-artificial-intelligence#:~:text=AI%27s%20potential%20to%20advance%20diagnostics,the%20region%27s%20shortage%20of%20pathologists) Health, Latin America, and the Promise of Artificial Intelligence | Think Global Health

<https://www.thinkglobalhealth.org/article/health-latin-america-and-promise-artificial-intelligence>

[[10]](https://www.transdev.com/en/innovation-tech/chile-latin-american-autonomous-vehicle-project-success/#:~:text=Transdev%20Group%E2%80%99s%203,on%20the%20global%20AV%20network) [[11]](https://www.transdev.com/en/innovation-tech/chile-latin-american-autonomous-vehicle-project-success/#:~:text=,days%20up%20to%20413%20passengers) Chile's first Autonomous Vehicle project was a great success

<https://www.transdev.com/en/innovation-tech/chile-latin-american-autonomous-vehicle-project-success/>