UNU-IIST Macau
Research and Training portfolio

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• First launched in 1992 by the United Nations University and authorities from China, Portugal and Macau.

• Throughout the years it contributed to development in areas including software technology and e-gov training.

• UNU-IIST is a UN think tank with a focus on digital technologies for sustainable development; conducts policy-relevant research; offers digital technology and SDGs training.

• Our focus:

  What are the (positive/negative) impacts of digital technologies on the world, particularly on the Global South?

  How digital technologies can speed up the achievement of SDGs?
United Nations University Institute in Macau
Research Team

Multi-disciplinary Team
• Computer Science, Data Science, Educational Psychology, Communication, Global Health, Computational Social Science, Public Policy

Research Interests
• **AI & Ethics**: Exploring the moral implications and responsibilities associated with AI.
• **Complex System Modelling & Simulation**: Utilizing computational tools to understand and predict complex systems behaviour.
• **Collective Intelligence**: Harnessing the power of collective knowledge and decision-making.
• **Digital Well-being**: Ensuring technology contributes positively to mental and physical health.
• **Youth Engagement**: Involving young people in meaningful activities that affect their lives and communities.
• **Global Health**: Addressing health concerns that transcend national boundaries.
• **Gender**: Studying the connection between gender and digital technology.
Gender and Technology
UNU-Macau is a founding partner of both the EQUALS Global Partnership and the EQUALS-EU initiative. As part of this work, we contributed to a gender and diversity Lexicon, held a Hackathon, and presented at the general assemblies. We hosted a dissemination event in Macau to promote gender equality among women and girls in the region.

EQUALS-EU aims to build capacity in gender-inclusive innovation in Europe and partner countries worldwide with an ambitious and value-driven agenda. It is an initiative funded by the EU Horizon 2020 Framework Programme and implemented as part of the EQUALS Global Partnership. [https://equals-eu.org/](https://equals-eu.org/)

**A 4-STEP PLAN FOR GENDER EQUITY**

1. **ANALYSIS:**
   - Mapping gender-inclusive innovation ecosystems in 22 countries:
     - Policy Brief
     - Country fact sheets
     - Lexicon of gender equity terminology

2. **CO-CREATION**
   - Hosting innovation camps and hackathons in 19 countries during 2022:
     - New solutions for the digital inclusion of women and girls
     - New ICT products & services for gender equity

3. **MENTORING**
   - Running a six-month incubator program on gender-inclusive entrepreneurship for hackathon and innovation camp winners:
     - Lead new start-ups led by women
     - Two gender equity tools for digital inclusion

4. **KNOWLEDGE EXCHANGE**
   - Professional development of future leaders and advocates in gender equity and digital inclusion:
     - 3-week summer school in Valencia, Geneva, Riga during Summer 2023
Measuring, Monitoring and Evaluating the SDGs

Digital Poverty: Conceptual Definition and Measurement

- Digital poverty is the multifaceted lack of access, skills, and usage of information and communication technologies (ICTs) affecting individuals and groups beyond mere economic constraints.
- Not a single agreed definition of digital poverty, as different sources may use different criteria and indicators to measure it.
- Is it possible to come up with a conceptual definition of digital poverty?
- Review literature on digital poverty and related terms, identifying common themes and gaps
Inclusive and Responsible AI
UNU Generative AI Series

• A monthly series of webinar on Generative Artificial Intelligence

• Aims at understanding on how generative AI will impact our collective future on health, education, environment, climate, UN peacekeeping and humanitarian work

• Tuesday 9 April 15:30-17:00 Macau Time: Generative AI and Education

Register here: https://unu.edu/macau/unu-generative-ai-series
The Use of Synthetic Data to Train AI Models: Opportunities and Risks for Sustainable Development

Understanding the broad impact of synthetic data used in machine learning pipelines

Synthetic Data Policy Expert Committee (5 experts) - Extended version of the policy brief

- Training on understanding the challenges and risks of Synthetic Data for policy-makers

Theme: AI for All: Bridging Divides, Building a Sustainable Future.

When: 24-25 April 2024

Where: Macau SAR

Objective: The conference aims to:
- Create a knowledge-sharing platform for applied AI issues from diverse perspectives.
- Facilitate collaboration among stakeholders with common interests in AI-related topics.
- Co-create data-driven, inclusive, and sustainable AI solutions to accelerate SDGs.
- Foster an inclusive multi-stakeholder AI community that spans the Global South and the Cultural East.

Conference Tracks:
1. AI for SDGs: Exploring how AI can accelerate achieving Sustainable Development Goals (SDGs), including poverty reduction and climate action.
2. AI Governance: Addressing complex issues related to AI governance, emphasizing ethical, legal, and positive societal outcomes. This includes empowering marginalized communities.
3. Capacity Building: Enabling effective and responsible AI use by enhancing understanding and skills among individuals, organizations, and government officials, teachers, and technology communities.

Registrations: https://aimacau-2024.org/
UNU Artificial Intelligence Network

Mission:
• **Ethical AI**: Commit to UNESCO's AI ethics to empower the Global South and ensure a people-centric, sustainable digital future.

Who Should Join?
• **Diverse Engagement**: Academia for research, Private Sector for SDG innovation, Governments for policy guidance, Civil Society for grassroots application, UN Bodies for governance, Donors for support, and Individuals for expertise.

Membership Benefits:
• **Resourceful Collaboration**: Gain exclusive access to resources, co-create impactful projects, and showcase AI innovations at our annual conference.

Membership Contributions:
• **Supporting Sustainability**: Join for free and consider contributing to help raise $200,000 for our inaugural project and network coordination.

More info: www.unu.edu/macau
Training portfolio
Training “Agent-based modelling for better health policies”

• Course to understand how agent-based modelling can be used to address complex public health challenges where environmental, social and economic issues are interlinked.
• Projects: students implements their own models
• 25 students from Northwestern Polytechnic University (NPU)
• Online training + one week face to face sessions in Macau
• Career workshops on: Introduction on UN System, Introduction to UN Sustainable Development Goals, How to get a job at UN, Career Development in International Organisations
Training “Growing Up Digital: Youth, Technology, and Sustainability”

Background
It is crucial to understand how growing up with omnipresent digital technologies is influencing the way young people think, feel, and act and to consider what implications this might have on their health and well-being. Young people need to become empowered as digital leaders and have a deep understanding of the challenges and opportunities of technology poses in meeting the SDGs.

Aims and Objectives
By participating in this programme participants will be able to identify and formulate relevant and feasible research questions, learn about the influence of emerging technologies on youth development, and work together to develop research proposals.

This programme equip participants with:
- The knowledge and skills to engage in policy-relevant research
- Understanding of cyberpsychology and sustainability

Outline
- 1 week online training (1 hour synchronous per day) + 1 week (9.30am-6.00pm) face to face sessions in Macau:
  - Youth and Tech
  - Applied research methods and skills
  - Career development in the UN
  - Presentation skills
Workshop on Gender Equity and Digital Inclusion

Background:
Digital technologies are pivotal in achieving sustainable development goals and transforming societies. Despite the progress, challenges such as the digital gender gap and inadequate digital capacity-building remain prevalent, particularly in low- and middle-income countries.

Workshop Overview:
This workshop aims to address these challenges by:
- Highlighting the role of government programs in reducing societal inequalities and supporting digital inclusion.
- Discussing the impact of digital tools on socio-economic development and gender equality.
- Sharing insights and methods to foster policy influence, resource allocation, and sustainable, inclusive digital futures.

Key Features:
- Interactive sessions featuring insights from the EQUALS-EU project.
- Introduction to the Sustainable Social Impact Model and the Value Creation Canvas.
- Strategies for ensuring gender-inclusive impact in the digital space.

Expected Outcomes:
Participants will gain a comprehensive understanding of the tools and strategies necessary for integrating gender equity and digital inclusion in government programs, leading to more equitable and inclusive policies and practices.

Call to Action:
We invite stakeholders, policymakers, and practitioners to join us in this collaborative effort to shape a more inclusive digital world.