

# University of Michigan, School of Nursing

## Leadership, Analytics and Innovation (LAI) Master's Program 4-Day Intensive

May 17, 2022

**Topic:** *LAI in Data-Driven, Evidence-based, and Technology-Enhanced Health Science*

**Presenter:** [Ivo D. Dinov](#)

**URL:** [https://wiki.socr.umich.edu/index.php/SoN\\_LAI\\_4\\_Day\\_Intensive\\_May\\_2022](https://wiki.socr.umich.edu/index.php/SoN_LAI_4_Day_Intensive_May_2022)

Data, Methods & Implementation Challenges	Effective Nursing, Biomedical, and Health Sciences Approaches
<ul style="list-style-type: none"><li>• Lack of access to existing, effective, modern, active-learning resources</li></ul>	Embrace Open and FAIR Data Science
<ul style="list-style-type: none"><li>• Credit, acknowledgement, and recognition</li></ul>	Give credit, entice independent enhancements
<ul style="list-style-type: none"><li>• Storage, computing, networking limitations</li></ul>	Challenging, but Google, MS, AMZ, NVIDIA, RStudio provide free Ed support
<ul style="list-style-type: none"><li>• Collaboration<ul style="list-style-type: none"><li>○ Cross-institutional partnerships (limited time, funding, HR),</li><li>○ Transdisciplinary interactions (non-trivial),</li><li>○ Application domain repurposing (requires team-science support)</li></ul></li></ul>	Engage with fellow academics (e.g., MBDH, professional Societies), offer open-enrollment in short courses, MOOCs, other electives  Collaborate with partners on R&D projects
<ul style="list-style-type: none"><li>• Decision science and implementation of ML/AI into clinical practice</li></ul>	Use a team science approach, embedding nurses, clinicians, statisticians and engineers

### Core Principles

- *Team Science* approach to tackling difficult healthcare challenges (science, implementation, translation, costs, outcomes, equity)
- *FAIR* (Findable, Accessible, Interoperable, and Reusable) resources
- Supporting the *common-good, equitable, fair, transparent, trustworthy, rigorous, transdisciplinary, and sustainable Leadership, Analytics & Innovation in Nursing & Healthcare*

### Demonstrations

- Electronic books & active-learning – [DSPA EBook](#), [Scientific Methods for Health Sciences](#), [Probability and Statistics EBook](#)
- [Case-Studies - driving motivational challenges](#) and [open data resources](#)
- [Webapps](#) – [Motion Charts](#), [Pressure Injury Prediction Model](#), [UK Biobank](#), [SOCRAT](#)
- Collaborative Open-Science ([Ongoing Research Project](#), [Consulting](#), [Pubs](#))

**Contact:** Questions, comments, collaborations, and suggestions are always welcome. Google Search for “SOCR News” to find a one-page PDF with all details, resource links, and supporting information.