

BALANCING INNOVATION AND AI WITH THE HUMAN ELEMENT



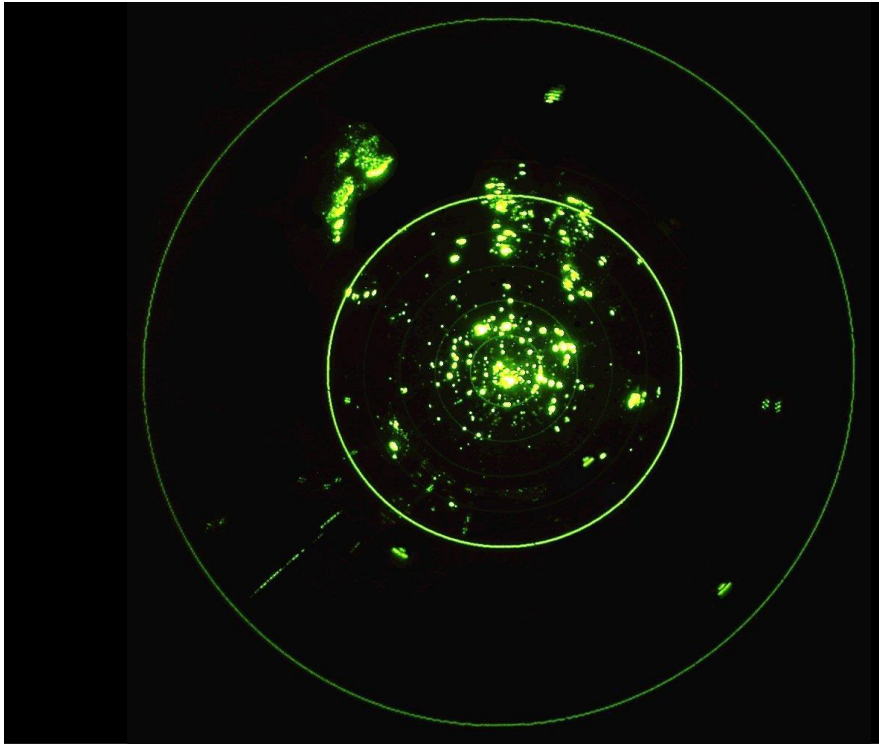
DATS WORKSHOP 8-9 MAY NORRKÖPING

PCX HELENA SJÖSTRÖM FALK

Operational ATC in LFV 1987 – 2024



THEN AND NOW





One Sky, One Voice

International Federation of Air Traffic Controllers' Associations

IFATCA is the recognised international organisation representing air traffic controller associations. The Federation has been representing air traffic controllers for more than 60 years, and has member associations in more than 130 countries.

- **The objectives of the International Federation of Air Traffic Controllers' Associations are:**
- To operate as a **non-profit and non-political** federation of air traffic controllers' associations;
- To promote **safety, efficiency and regularity** in International Air Navigation;
- To assist and advise in the development of **safe and orderly systems** of Air Traffic Control;
- To promote and uphold a **high standard of knowledge and professional efficiency** among Air Traffic Controllers;
- To protect and safeguard the **interests of the Air Traffic Control profession**;
- To make **mutual benefit affiliations** with other international professional organisations;
- To strive for a **world-wide Federation** of Air Traffic Controllers' Associations.

— Constitution of IFATCA



ICAO



Air Navigation Commission, ANC - 19 member states plus 9 organizations, of which IFATCA is one.

The Air Navigation Commission (ANC) considers and recommends Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) for adoption or approval by the ICAO Council.

Every third year – ICAO ASSEMBLY.

193 member states plus all organizations



ICAO PANELS

- ADOP (Aerodrome Design and Ops Panel)
- ATMOPS (ATM Ops Panel)
- ATMRPP (ATM Requirements and performance panel)
- CP-OPDLGW (Comms Panel, Datalink Specific WG)
- FLTOPSP (Flight Ops Panel)
- METP (Meteorology Panel)
- IFPP (Instrument Flight Procedures Panel)
- PTLP (Personnel Training and Licensing Panel)
- RPASP (RPAS Panel)
- SMP (Safety Management Panel)
- SP (Surveillance Panel)
- **Chair, SASP** (Separation and Airspace Safety Panel)

“Success in creating effective AI, could be the biggest event in the history of our civilization.

Or the worst. We just don’t know. So, we cannot know if we will be infinitely helped by AI, or ignored by it and side-lined, or conceivably destroyed by it.”

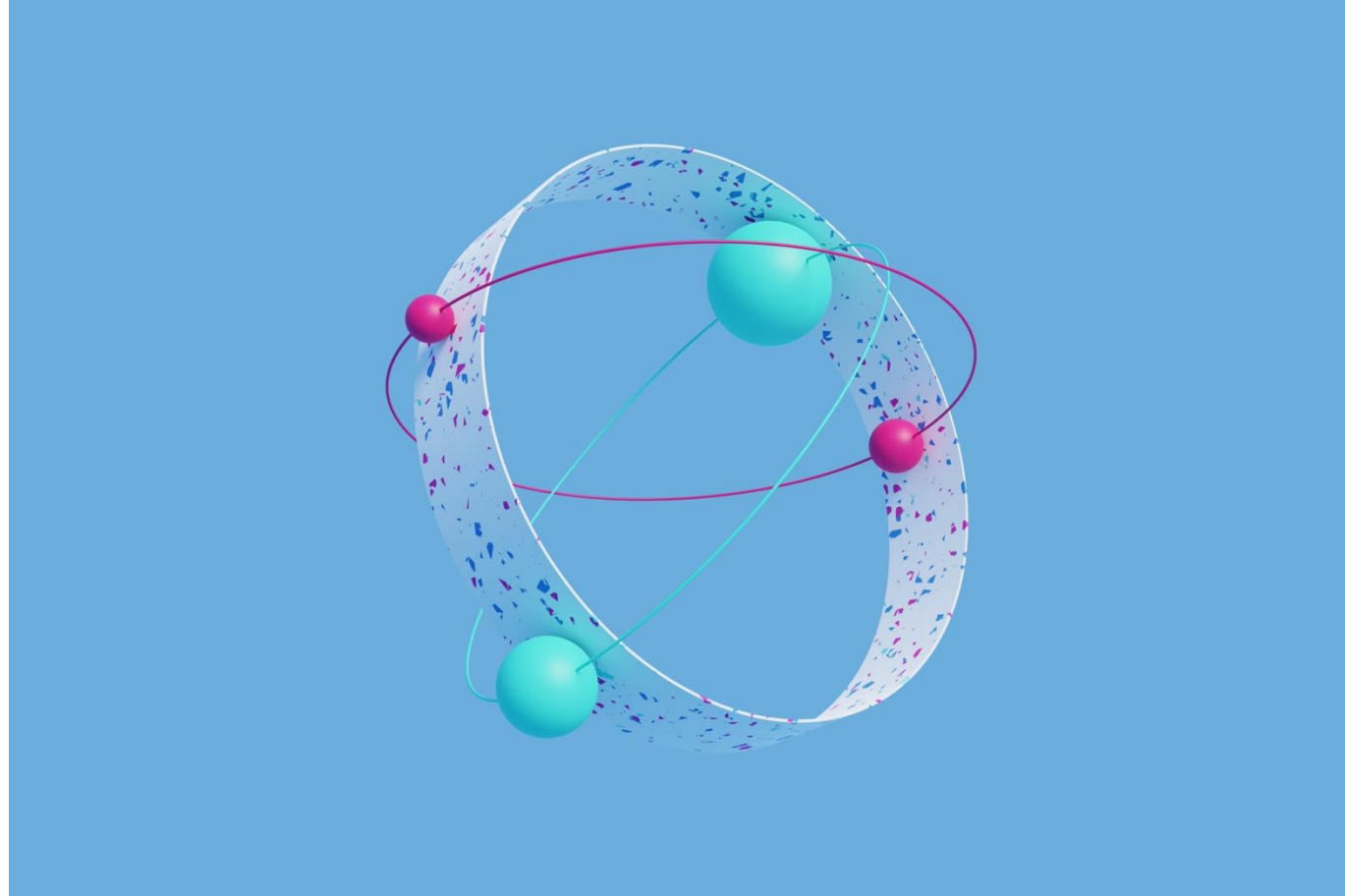
Stephen Hawking



WE WILL LEAVE THE ACTUAL PROGRAMMING TO THOSE WHO ARE GOOD AT IT



**BUT WE MUST HAVE CONTROLLERS INVOLVED IN THE THINKING,
PLANNING, IMPLEMENTATION AND TRAINING**



IFATCA JHMCS WORKING GROUP

BAUMGARTNER, SMOKER, MALAKIS & OTHERS

IFATCA Workshop : Digitalization in ATM

IFATCA

IFATCA Guidance Material on Joint Human and Machine System



Prepared by Stathis Malakis
IFATCA JCHMS Team

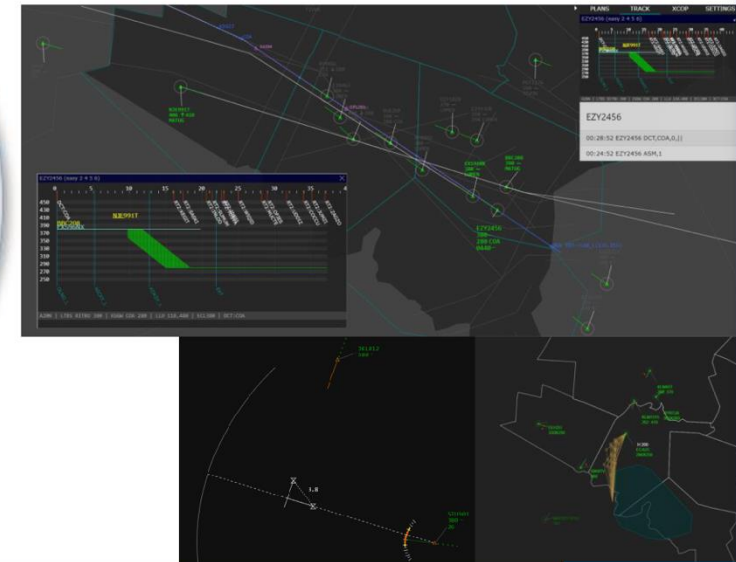
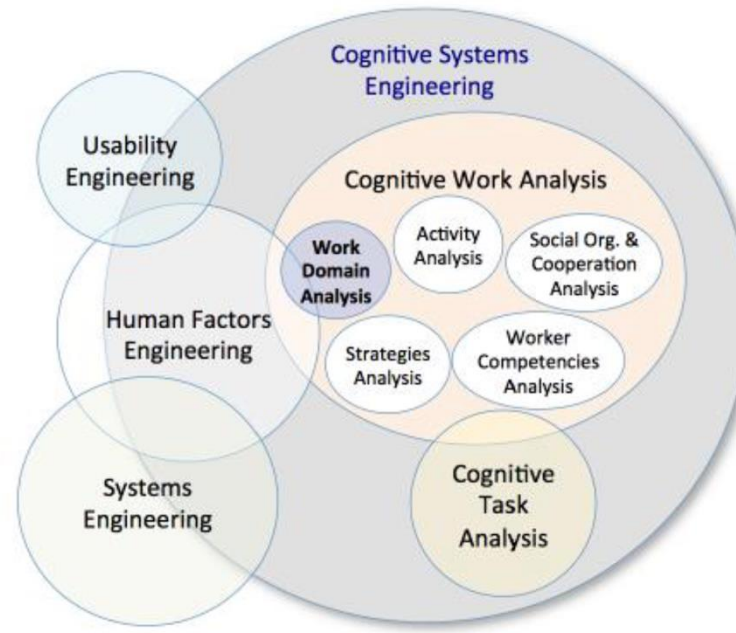
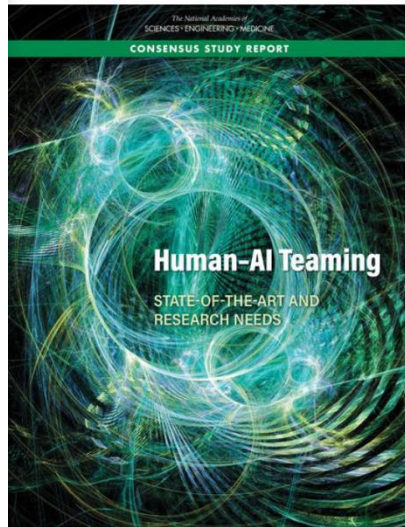
IFATCA Guidance Material on Joint Human and Machine System

Prepared by Stathis Malakis
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What was the Goal?

Develop a **Human Machine Teaming guide** for Air Traffic Controllers that can be used to support effectively Adaptive Human - AI teaming



Dr. Stathis Malakis IFATCA

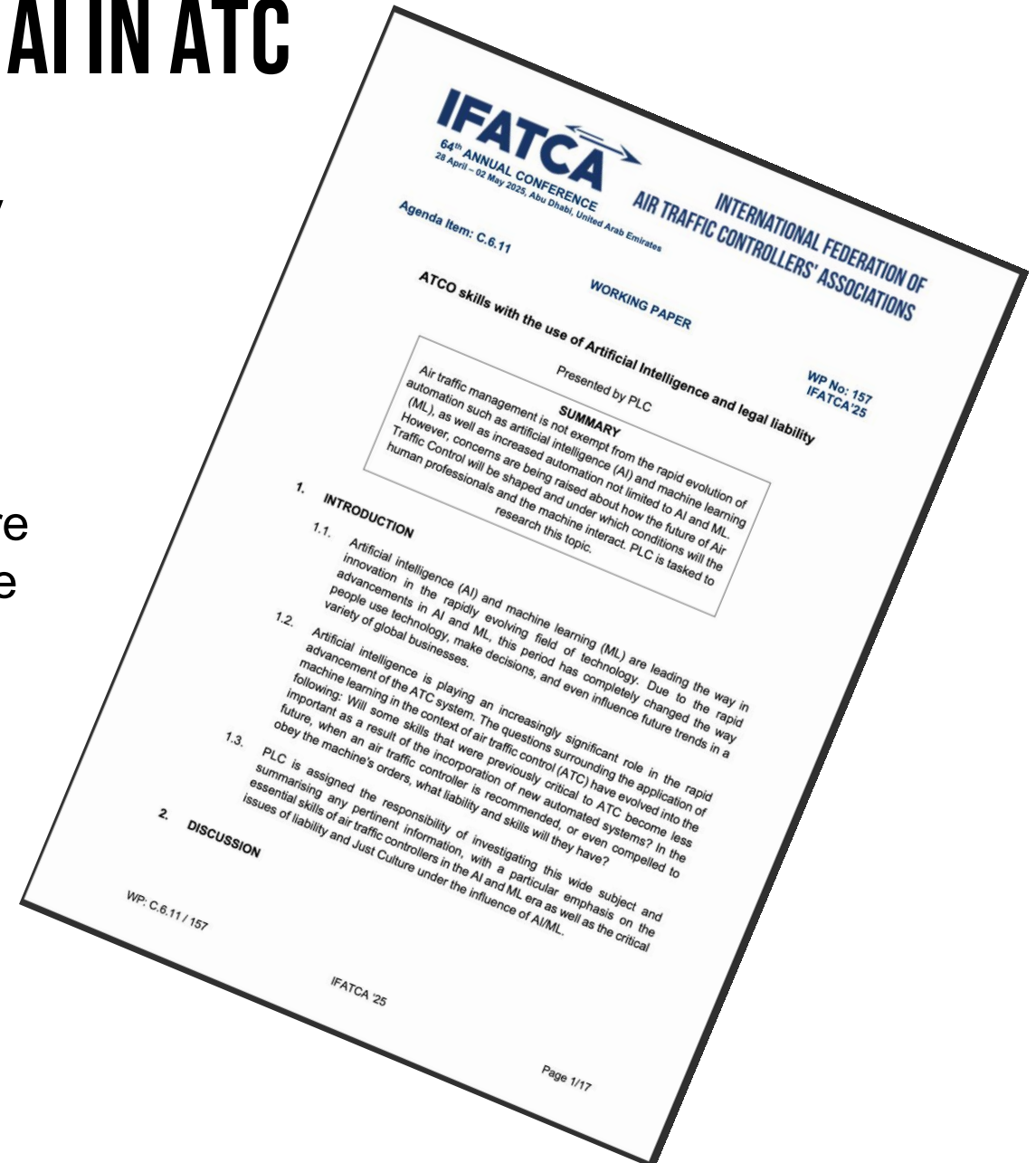
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LEGAL ISSUES WITH AI IN ATC

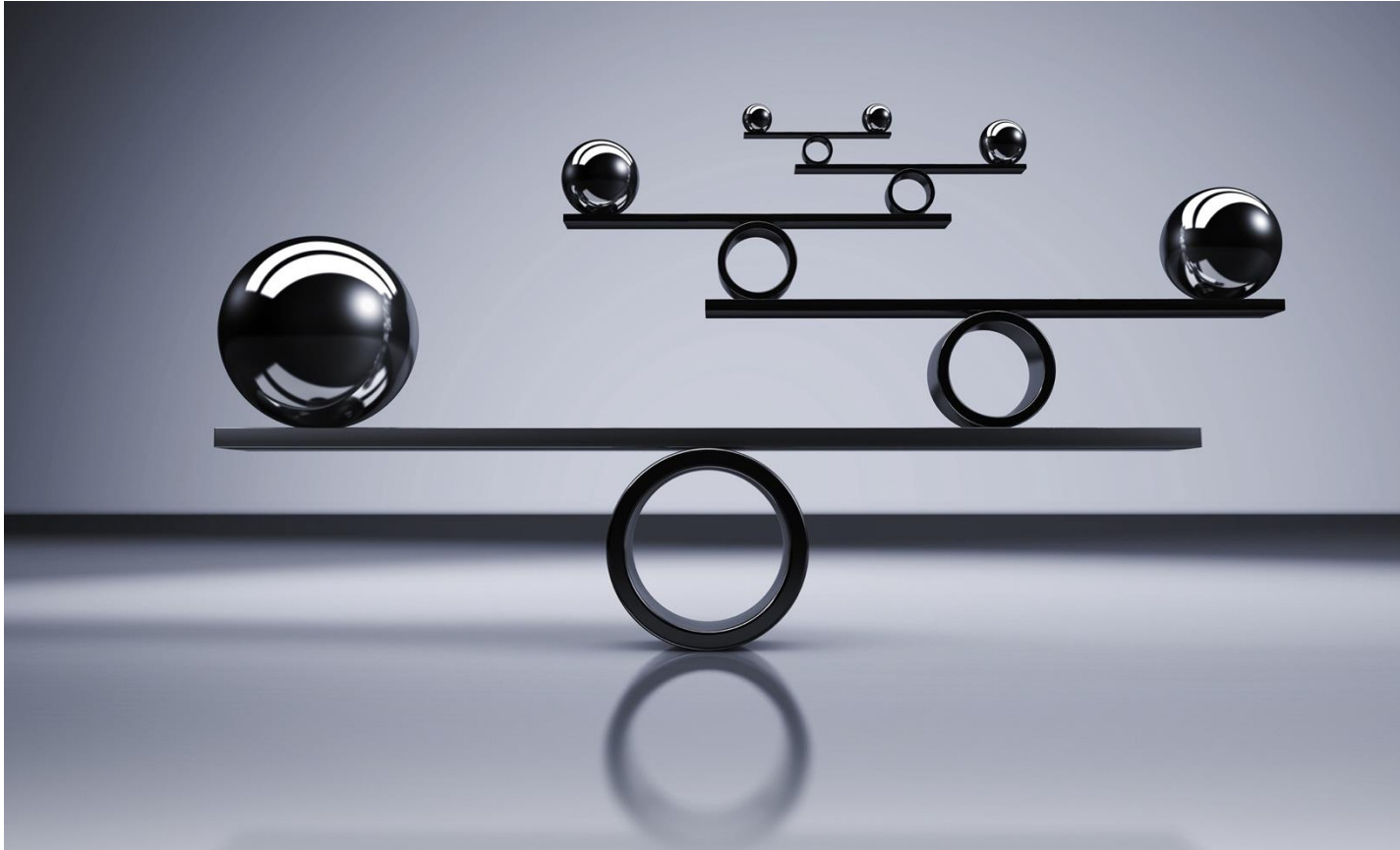
Precise frameworks for liability and accountability need to be established in order to guarantee the ongoing safety and reliability of air traffic management.

The crucial point should remain that AI and ML are here to assist the professionals and not to replace them. In order to achieve this, the controller shall receive sufficient training to keep their skills current and avoid skill fade.

The future of air traffic control must be human centric and not machine centric.



COLLABORATION



Academia

Industry

ANSPs

Politicians

PSOs

THANK YOU!

