MARAD Symposium
Achieving Critical MASS

Uncertainty for Maritime Workforce of the Future

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Seafarers International Union

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Transport 2040: Automation, Technology, Employment - The Future of Work

World Maritime University

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TRANSPORT 2040

AUTOMATION TECHNOLOGY EMPLOYMENT

THE FUTURE OF WORK

World Maritime University

- About:

The World Maritime University (WMU) in Malmö, Sweden is a postgraduate maritime university founded in 1983 by the International Maritime Organization (IMO), a specialized agency of the United Nations.

The aim of WMU is to further enhance the objectives and goals of IMO and IMO member States around the world through education, research, and capacity building to ensure safe, secure, and efficient shipping on clean oceans. WMU is truly an organization by and for the international maritime community.

- Mission Statement

As the International Maritime Organization's center of excellence for postgraduate maritime education, WMU's mission is to be the world center of excellence in postgraduate maritime and oceans education, professional training and research, while building global capacity and promoting sustainable development.

www.wmu.se

International Transport Workers' Federation

The International Transport Workers' Federation (ITF) is a democratic, affiliate led federation recognized as the world's leading transport authority. We fight passionately to improve working lives, connecting trade unions from 147 countries that may otherwise be isolated and helping their members to secure rights, equality and justice. We are the voice for 18.5 million working men and women across the world.

www.itfglobal.org

Findings

- Low and Middle skilled mariners have a higher likelihood of having their jobs automated

Automation potential in relation to skills group by transport mode
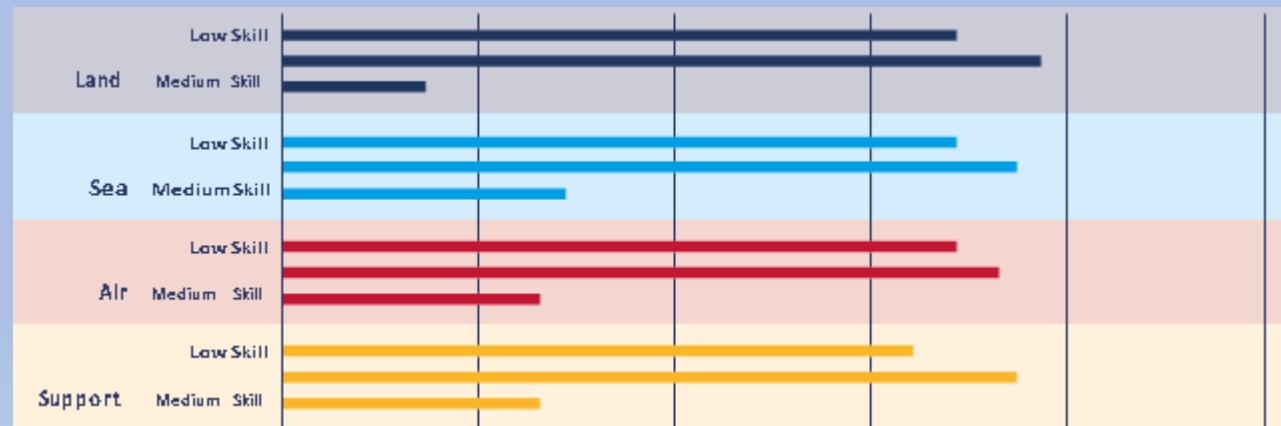
Employment-weighted probability of automation (%)

- Source: BLS, Eurostat, ILO, Frey and Osborne (2017), WMU analysis

Findings

- While some jobs will become obsolete, some new jobs will be created

  - Training is essential for mariners to take on these new jobs
  - It is essential to determine what will be required of the future workforce before implementing new technologies
  - Training needs to happen concurrently with the implementation of technologies so mariners are prepared to take on new jobs

Recommendations

- Raising awareness for the implications of further introduction of automation and technology into transport systems

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- Establishing national strategies and policies to address the ramifications of further automation and technology transport
- Supporting developing countries in coping with the effects of the introduction of more automation and technology in transport

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- Facilitation of intensive dialogues between stakeholders in global transport for a better understanding of the different position of all parties concerned
- Establishing national strategies and policies ro address the ramifications of further automation and technology transport
- Supporting developing countries in coping with the effects of the introduction of more automation and technology in transport
- Identifying Essential skills needed to effectively work in a world of advanced automation and technology in transport and implementing them in education and training

Safety & Security

- Interactions between Conventional Vessels and Autonomous vessels
  - Communications, rules of the road etc…
- Proof of Concept
  - Hacking, security breaches, malfunctioning of systems can allcreate hazardous conditions for conventional vessels especially in congested areas as is found in short sea shipping
- National Security:
  - Replacement of qualified mariners with autonomous vessels will create a mariner shortage during times of national emergency

One Last Finding

- Many Countries have not developed long-term plans for automation in the maritime sector

- The maritime sector is still at the beginning of its transformation compared to other transportation sectors

- Many countries have adopted a strategic vision for the introduction of new and emerging technologies in the maritime sector

- However, no country to date has unveiled a comprehensive strategy for maritime transport , one that combines regulations with innovation, competences and skills, infrastructure and future business models

Thank You

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