

EDUCATION, TRAINING, AND CAPACITY-DEVELOPMENT FOR THE IMPLEMENTATION OF GLOBAL MARITIME STANDARDS

Maximo Q. Mejia Jr ¹

¹ President, World Maritime University, Malmö, Sweden.

op@wmu.se

EDITORIAL

KEY-WORDS: Global maritime standards, Decarbonization, Education and training, Green transition, Technological advancements.

The role that shipping plays in facilitating trade has been indispensable throughout most of the history of human civilization. Indeed, shipping serves as the lifeblood of the global economy. In recent times it has become abundantly clear that humankind cannot continue to treat the oceans, and nature as a whole, as it has always done – as a pristine and inexhaustible supply of natural resources that can absorb the negative aspects of every operational activity undertaken on it – without giving thought to its state and sustainability.

Climate action aligned with the “Paris Agreement” has compelled the maritime industry to mitigate the negative environmental impacts of shipping activities. Industry needs are rapidly shifting towards the green and ecological operation of ships and ports.

The green transition in maritime energy is inevitable, yet it is also an opportunity for the industry. The maritime industry inherently offers the lowest GHG emissions and energy consumption per transport mode, and has a wide range of technical possibilities for energy saving and replacement of fossil energy with sustainable options. Maritime transport also has great opportunities for adopting carbon-free energy sources, given the dimensions of commercial vessels, and that vast renewable

energy resources are available on the world’s oceans.

However, the specific technical issues are not the only issues regarding sustainability as a whole. The concept of greener shipping must be seen as relevant to all aspects of the industry, from maritime education for sustainability, through maritime law, insurance, shipbuilding, repair and operation, financing, regulation, logistics, port operations, bunkering, brokering, Flag State and Port State action, among others.

Given the phenomenal scale of the task ahead, the maritime industry as a whole, stands at the cusp of one of the greatest technical, economic and operational challenges in its modern history. The transition will require unprecedented transformations, adaptations, and changes in the way the industry works as well as the adoption of novel technical innovations. The world is entering an era of fundamental (and often exponential) transformation, perhaps the most profound in human history.

Humankind is already starting to witness the emergence of innovative energy saving measures, net-/zero-carbon renewable fuels, and the use of modern renewable energy technologies, such as

wind and solar propulsion technologies. Ports will also no doubt take a central role as energy hubs in this transition.

Maritime education, indeed all education, has a critical role to play in making this current generation and ones to come, appreciate – not only cognitively, but also affectively – the importance of good stewardship of the natural environment in which the maritime industry operates.

The question is what kind of education will support the diverse facets of maritime human resource management and development in this kind of ever-changing global context – and even national context – in light of decarbonization?

One view that could be taken is that education for the future should definitely cover the technical competencies required in the multiple professional areas of the maritime sector, whether in respect of ship operations (seafarers) or in areas such as maritime finance, shipbuilding, and maritime and ocean governance.

Focusing on seafarers, there are many previous and ongoing research efforts to understand the specific skills that will be needed for the medium to long term in ship operations.

The nature of work will change. More sophisticated ships will be deployed, and such sophisticated environments will require a correspondingly high and sophisticated level of skill in future seafarers. On the one hand, demand for seafarers is expected to increase at a steady rate, allaying any initial fears that seafaring jobs would vanish due to automation. However, the technological transition in the maritime industry will affect seafarers differently depending on their rank and job function. Upskilling and reskilling are important interventions in support of seafarers in light of the rapid change in their working environment due to the advancement of smart and green technologies. The pace and nature of technological change brings with it many possibilities and opportunities... but it also presents societal dangers and challenges such as cyber-security concerns, energy demands brought on by cloud-based activities, global inequity, and the risks associated with great pressure for accelerated paces of adaptation.

Furthermore, on top of the specific technical skills needed for the maritime industry today and in the

short-term, there is the need for a new paradigm of education that seeks to engender in learners a problem-solving mindset, critical thinking, resilience, adaptability, systems thinking and collaboration (as opposed to the all too pervasive siloed approached taken by maritime actors). Just as important is the kind of education that fosters the important skill of continuous learning.

As the nature of work evolves, massive training will be needed, and the maritime industry will have to consider technological advancements within education and training itself. The question “how” do we educate and train and with “what” brings to mind options such as online/hybrid learning, blended learning mediated by technology, artificial intelligence applications, virtual reality (VR), augmented reality (AR), mixed reality (MR), and extended reality (XR).

Maritime education and training (MET) institutions will be presented with increased pressure to contend with the challenges of –

- educating people for 20- to 40-year career roles in a context of very quick change;
- maintaining awareness at an organizational level of changes in the industry arising from diverse sources – International Maritime Organization (IMO), industry, technology innovators, practices of other MET institutions;
- updating curricula, optimising teaching and learning resources; and
- resource acquisition to support all of the above.

Taking a broader perspective, the world’s future maritime leaders will be the architects and the conductors who will determine whether our agreed aspirations today will become the realities of the future. As and when global standards are agreed and adopted at IMO – on decarbonization, ship design and operation, digitalization, automation, among many other areas that will be affected by technological development and innovation – ultimately, success in implementation will depend on strong and concerted partnerships and collaboration between all the stakeholders in the global system of maritime governance. Ultimately, education, training, and capacity-development for all stakeholders will be critical to the successful implementation of global maritime standards.



AUTHOR BIOGRAPHY:

PhD, Lund University, Sweden
MSc, World Maritime University, Sweden
MALD, Fletcher School of Law and Diplomacy, Tufts University, USA
BSc, United States Naval Academy, USA

Professor Maximo Q. Mejia is an accomplished global leader and scholar in Maritime Governance, Policy, and Administration. With over three decades of professional and academic experience, Professor Mejia is a passionate international advocate for the promotion of safe, secure, sustainable, and efficient shipping on clean oceans.

Professor Mejia was appointed by the Secretary-General of the International Maritime Organization (IMO), as the eighth President of the World Maritime University (WMU), a university established within the framework of the IMO and a global centre of excellence for maritime and ocean education, research, and capacity building. He is the first President from Asia and the first President who is a graduate of WMU. As the Chief Executive Officer, Professor Mejia oversees and directs the academic programmes, operations, and administration of the University.

Professor Mejia held various positions at WMU, as Director of the PhD Programme, Head of the Maritime Law and Policy Specialization, and Nippon Foundation Professor of Maritime Governance, Policy, and Administration at WMU. He also served as Associate Academic Dean and has been a resident Faculty member since 1998. During his tenure at WMU, Professor Mejia spearheaded the further development of the WMU PhD programme in Maritime Affairs ensuring a cutting-edge curriculum and a growing number of doctoral students. Professor Mejia is author/co-author of more than 70 published articles and book chapters and the editor/co-editor of 12 books. His multi-disciplinary research and teaching include maritime policy, maritime law, maritime labour law and policy, human factors, safety, and security-related issues.

Aside from senior leadership roles within WMU, Professor Mejia served as Administrator/Director-General at the Maritime Industry Authority (MARINA) from 2013 to 2016, heading the government agency responsible for integrating the development, promotion, and regulation of the maritime industry in the Philippines. From 1988 to 1998, he progressively held various positions in the Philippine Navy and Philippine Coast Guard including Deputy Chief of Staff for Navigational Safety and Deputy Executive Director of the Multisectoral Task Force on Maritime Development. In 2013, Professor Mejia was included in the Lloyd's List 100 Most Influential Persons in the Shipping Industry. He served on several senior diplomatic assignments including Head of Delegation of the Philippines to IMO meetings (2013-2016), Special Envoy of the President of the Philippines to the Inauguration of the Expanded Panama Canal (2016), and Chairperson of the 31st ASEAN Maritime Transport Working Group (2016).

Professor Mejia earned his PhD from Lund University, Sweden, Master of Science from the World Maritime University, Master of Arts in Law and Diplomacy from the Fletcher School, Tufts University, USA, and Bachelor of Science from the United States Naval Academy. Professor Mejia is fluent in Filipino, English, and Swedish and has a knowledge of Spanish and Chinese. He is married to Rebecca Hayes Mejia, with whom he has three children and three grandchildren.

CONNECT WITH HIM AT OP@WMU.SE