A Discourse Analysis Approach to Establishing Prevalent Concepts in the Maritime Community

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ABSTRACT

The paper analyses prevalent topics found in narratives of the maritime discourse community in the past seven years, from 2016 to 2022. For this purpose, we compiled a corpus of eighty speeches given by the respected Mr. Kitack Lim, secretary-general of the International Maritime Organisation (IMO). The texts are found on the official IMO website and were delivered on the occasion of significant maritime events. The analysis section combines quantitative and qualitative methods. The sophisticated language program *Wordstat* was used to determine frequencies, dominant phrases, collocations and prevalent topics. In addition, critical discourse analysis was used to interpret linguistic facts through the lenses of an actual maritime setting. The results reveal how dynamic changes in the maritime discourse community are reflected in narratives. We note how traditional issues in seafaring have been complemented with new perspectives impacted by globalisation, digitalisation, automatisation, issues of social and human rights which have been raised, women's empowerment, questions of environmental protection and many more. We conclude that the established concepts cannot be demarcated: they are increasingly interdependent and have the seafarer in their focus. We also point to the possibility of future research in the domain of comparative analysis on a sample of larger corpora that could make use of research articles or academic narratives about the maritime discourse community.

1 Introduction

Recent years have witnessed dynamic changes in the shipping industry. A number of governing maritime concepts have been evolving and adapting to the needs of a globalised shipping industry. Focused primarily on seafarers, a diverse array of social, cultural, health and geo-political factors have influenced this specific branch of industry. The changes in shipping trends have been reflected in the narratives referring to the members of the maritime discourse communities worldwide. All developments in the shipping world have posed substantial challenges to the vast maritime community and have been followed by the International Maritime Organisation, the most distinguished organisation in shipping.

In light of this, this paper analyses speeches given at meetings, delivered by the respected Mr. Kitack Lim

between 2016 and 2022. Mr. Kitack Lim is the ninth secretary-general of the International Maritime Organisation (IMO), a specialised agency of the United Nations. IMO was established 30 years ago with the goal of laying down standards and regulatory frameworks aimed at enhancing maritime safety and security, and preventing pollution from ships. Currently, the IMO is made up of 175 member states and three associate members. Over the years, the countries have met challenges regarding the international labour market, evolving around the "seafarers journey" [16], the promulgation of seafarers' rights regarding health and social policies, employment, environmental protection and greener shipping. In addition, shipping companies have had to adapt their policies to enable a female-friendly working atmosphere and the elimination of gender-related barriers in the maritime sector [25]. On the other side of the continuum are the issues of remotely

controlled vessels, unmanned ships in the coming 15-to-20-year period and the reduced need for a human workforce, which may change the future of the shipping environment [30]. Given the above-stated goals of the International Maritime Organisation, the mission of the secretary-general is to do his best to promulgate and implement the prescribed goals of the IMO focused on the wellbeing of, primarily, seafarers and the vast maritime community. Regarding the changes affecting the modern world, his role in steering the organisation is reflected in efforts to maintain safety, prevent marine pollution and address diverse issues dealing with seafarers' social and legal rights and compliance with IMO conventions.

Relying on the critical discourse studies and the research work of van Dijk in particular, we explore how the established linguistic facts reveal the prevalent pragmatic concepts in the maritime discourse community. To the author's knowledge, only a few authors have explored how maritime narratives reflect current topics in the maritime sector. We have found two relevant research papers applying discourse analysis in the IMO narratives available on the official IMO website. The topics in focus were: globalisation, the legislative framework, leadership, and hegemony in international seaborne trade [5]. In another study, based on the research of available IMO documents, Germond and Wa Ha [14] point to the links between intertwined concepts, such as climate change and maritime security. The application of language software and a content-based approach associated with digitalisation and sustainable shipping is also conducted in the study carried out by del Giudice et al. [8]

There are myriad corpus analysis software programs or text-mining tools, which are often used for the analysis of large chunks of texts. We opted for *Wordstat* [42] analysis of the texts but we believe that any other sophisticated software would generate similar results (Leximancer, LancsBox). The mentioned software can be used not only for linguistic but also consent-based findings such as, for example, the analysis of an employee's feelings, intangible values of a company etc.

The advantage of corpus analysis programs is that they are easy to navigate and can rapidly and smoothly identify conceptual relationships between words. Thanks to the option called *coding*, which establishes conceptual connections and maps data on the basis of the lexical frequency and occurrence of data, *Wordstat* identified prevalent concepts and codes, among which we filtered out repeated ones and came up with five of them.

The research questions in this paper are related to the following topics: 1. Which concepts pervade the seven years of narratives about the maritime discourse community? 2. How does the discourse reflect the actual maritime social, environmental and seafarers' position in modern shipping?, and 3. How have these concepts evolved in the past seven years?

In the first part of the paper, we explain the concept of the maritime discourse community. Then, we present the research postulates in critical discourse studies and how they are related to exploring the maritime discourse community. We feel obliged to familiarise the reader to the concept of the maritime discourse community as well, as it connects seafarers and maritime professionals worldwide.

The main section of the paper – the analysis – combines quantitative and qualitative methods. The qualitative analysis is based on interpreting statistical linguistic data retrieved from the texts. The established data refer to the quantitative features of the texts, such as keywords, major topics, phrases and frequencies. The results show that the global concepts inherent to seafaring's centuries-old existence have persisted despite the rise of digitalisation and new technologies. Nevertheless, new 'currents' that have affected the maritime community have also been reflected in maritime narratives.

2 Theoretical setting

In the further sections of the paper, we present the theoretical foundations of the paper. We briefly present critical discourse studies as a linguistic theory which is utilised to conduct the research. After that, we elaborate on the concept of the maritime discourse community.

2.1 Critical discourse studies

The analysis of the concept of discourse in modern linguistics is subsumed under the umbrella of discourse analysis, or more recently, critical discourse analysis. Of the many definitions of discourse offered in the literature, the most familiar to the subject one focuses on studies of language higher than the level of the sentence. This language may encompass verbal and written pieces of speech and text. Over the years, discourse studies have included studies of the context – more precisely, the ethnographic dimension, social relations and power as explored by Fairclough [12], [13], van Dijk [35], [36], [37] and Wodak [39], [40]. The rise of digital technologies, the internet and globalisation have imposed the need to explore visual messages in digital media and non-verbal aspects in spheres of communication such as body posture and visual representation. The utility of the new media data enables closer insight into real-time content and access to text, image and multimedia information in general [41]. Therefore, a critical discourse analysis approach relates to how the narratives reflect the social world or how it is influenced by various social forces [6]. Analysing external or social factors requires an interdisciplinary approach or dialogue between disciplines [13].

From the above, it is clear that the critical discourse study approach strives to reveal the socio-political or social implications embedded in spoken or written texts. Some critical attitudes regarding critical discourse analysis refer

to the biased interpretation of the texts. However, there is no doubt that critical discourse studies in recent years have incorporated an eclectic approach and have unified scholars from different disciplines in the analysis of written and spoken texts [34]. Finally, critical discourse studies nowadays rely on quantitative computer programs enabling analysis of vast and diverse corpora. Automatic analysis enables the reliable and time-saving process of analysis of keywords, clusters, the lexical profile of the text, and collocations of the discourses under analysis [34]. The focus is especially on current perspectives, relations of political power, the position of minorities, feminist movements, gender-sensitive subjects and discrimination [34].

The term 'discourse' in this paper embraces narratives established over a seven-year period tackling the key perspectives of the diverse maritime discourse community and its specific work setting, social practices and current problems connecting its members [39]. Thus, the concept of the maritime discourse community will be elaborated in the following section of the paper.

2.2 Maritime discourse community – a current heading

The concept of a discourse community set forward by Swales [32] emphasises the communicative purpose and genres as prominent and linguistic features of a discourse community. The core concept in Swales's theory is genre: an organised pattern of communicative events employed by a specific discourse community with the aim of achieving a common communicative goal [32]. Bhatia elaborates on the theory of genre of Swales adding that genres have recognizable moves and rhetorical strategies [3]. Furthermore, members of a professional discourse community need to be familiar with the conventions of the genre before exploiting it for a particular communicative purpose [32].

Figure 1 partially outlines the components of the maritime discourse community and their associated participants. Regarding the parameters of a discourse community set forward by Swales – those of genre and its recognisable structure – we consider the major maritime-related participants involved in the shipping business onshore and offshore [9], [10], [11]. If we emphasise only seafarers, we may undermine the importance of all those participants onshore, which make the shipping process sustainable (maritime authorities, harbour master's offices, port administrations, vessel traffic services, maritime institutes, and maritime educational institutions). In addition, the maritime discourse community employs many regulatory mechanisms in the form of codes or conventions (e.g. The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), Safety of Life at Sea (SOLAS) and IMO Revised Strategic Plan [16], used to accomplish strategic (communicative) goals among maritime stakeholders. Owing to the rise of digital technologies and the popularity of social media, the IMO has been utilising virtual space to promote its activities.
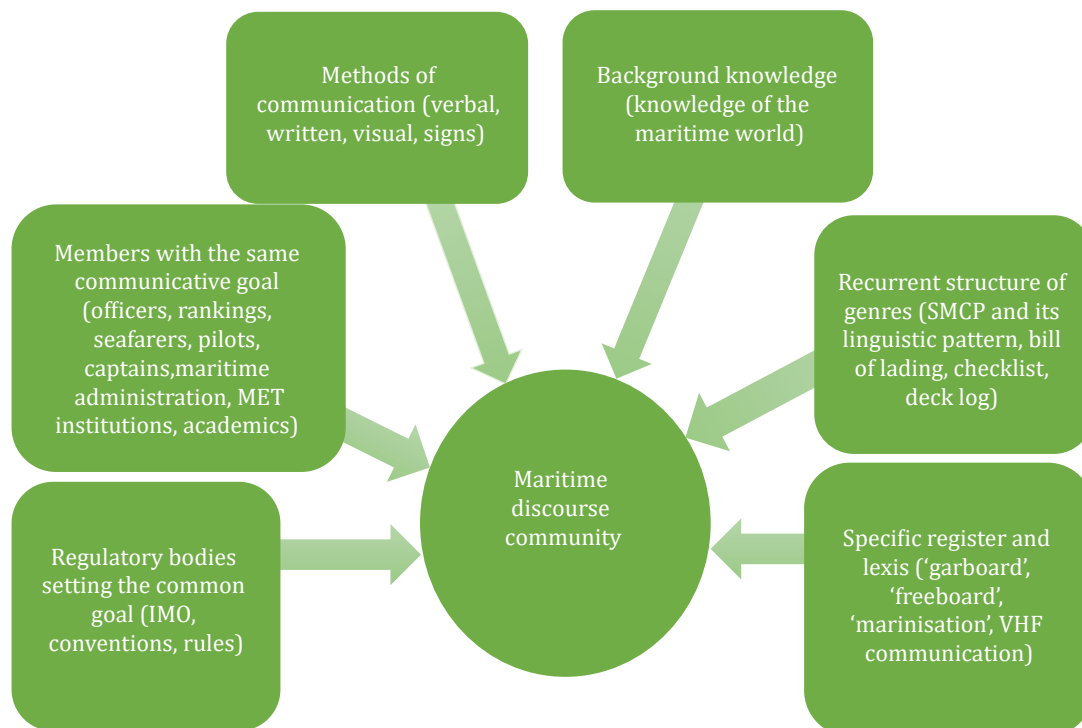

Figure 1 The concept of the maritime discourse community according to Swales' criteria of a discourse community

Source: Author

The classification into verbal and written communication brings a variety of discourse types and genres [9], [10], [11]. For instance, verbal communication connects an infinite number of members employing particular language patterns to achieve their communication goals, as with VHF communication rules in ship-to-shore or shore-to-shore communications. Moreover, regarding a ship as a specific professional work setting, there is a rough division into deck, engine and catering departments. We can thus further differentiate between the discourse community of the deck crew department and their peculiar communicative goals, engine officers and, more recently, the electro-technical officers dealing with electrical and electronic operations, manuals and instruction books.

Knowing that, nowadays, seafaring is globalised more than ever, interaction between academic institutions, maritime and training institutions (MET), governments, the economy and the public sector is most definitely unavoidable in the era of digitalisation and the rise of new genres of communication [4].

3   Corpus and methodology

Our aim in this paper is to analyse the main concepts in the maritime sector elicited from the last seven years. Accordingly, we compiled a corpus of 80 speeches delivered by the secretary-general of the International Maritime Organisation (IMO) from 2016 to 2022. These speeches are available in the form of written statements on the IMO official website, in the subsection named "Speeches by IMO Secretary-General Kitack Lim". Therefore, our corpus contains 396 pages of text and a total of 86,320 tokens.

The quantitative data was generated using language software. Firstly, the software *WordStat* version 2022.0.2 was used to produce a list of the prevalent topics in the narratives. For the sake of clarification of the notions *topic* and *concept* in this paper, we analyse dominant concepts being a broader category encompassing many topics and themes, and standing for more precise and concrete terms.

Table 1 Details about the corpus

Year	Number of speeches	Number of tokens
2016	10	14,180
2017	12	13,818
2018	10	12,376
2019	12	11,757
2020	11	11,059
2021	12	11,065
2022	13	12,065
Total corpus	**80**	86,320

Source: Author

The production of the topics in the software is based on grouping the most frequent words into thematic domains or clusters (co-occurrence of words concerning the same topic or domain). For example, in our corpus, "human element", "human health", "environment", "life", "committee", "positive", "growing", "matters", "organisation", "assembly", "group", and "strategic plan" are coded under the topic "human element". After establishing the topics (segments), we used the dictionary option to obtain the frequency list, the most frequent lexemes (IMO, shipping, maritime, global, world) and phrases, as presented in Figure 3. The advantages of the programme are also that it contains illustrative graphs, images and word clouds of the word lists, visualising the relationships between the code word in the corpus and its relationship ("distance") from other words in the "neighbourhood".

There were two reasons why we decided to explore the IMO secretary-general's speeches. Firstly, the secretary-general has the most significant authority in the maritime community. As the head of the IMO, the most recognised governing body in shipping, he has a comprehensive knowledge of a myriad of maritime-related issues. The second reason for choosing the secretary-general's speeches rather than, for example, scholarly articles from the maritime field, lies in the fact that we were choosing texts in which the speaker addresses the community of which he or she is a member. In addition, as a participant in the community under research, the secretary-general showed his involvement and solidarity, or the relational value of "being in the same boat" [13].

4   The analysis

In the first part of the analysis, we start with the analysis of grammatical features, vocabulary and specifically personal pronouns highlighting the speaker's rapport with the audience and the in-group solidarity [35]. Then, in the second part, we analyse prevalent concepts in the corpus and present the evolution of the concepts in the final part of the analysis section.

4.1 Grammatical words in the function of speaker's solidarity with the in-group of people

Regarding the grammatical words, personal pronouns are relevant to this paper as they act as lexical nominals and show the speaker's attitude toward the referents. Moreover, in the analysed narratives, personal pronouns have a metonymic meaning. That is, the speaker refers to him or herself as the protagonist in question [38] and expresses his or her belonging to the in-group of the speakers [35].

As can be seen from Figure 2, which presents the distribution of the most dominant lexical words in the corpus, the most frequent personal pronoun is *we*, followed by *I*, *you* and *they*. The lower rating of the third-person plural *they* can be explained by the fact that *they* refers to
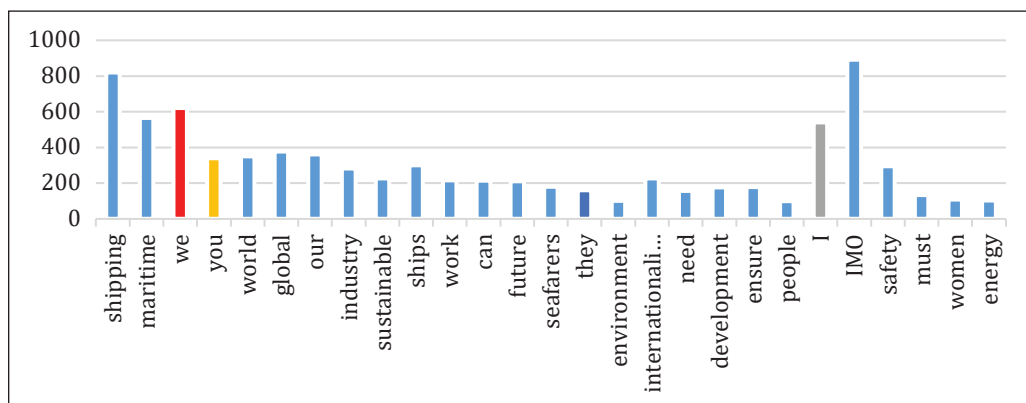
Figure 2 Lexical and grammatical words with at least 100 raw occurrences in the corpus

Source: Author

the out-group of people and usually implies bad other-presentation in public speeches [35], which is not the case with the secretary-general's speeches. As mentioned earlier, using the first-person pronouns *I* and *we* implies the speaker's dedication and commitment to the audience he is speaking to. According to Fairclough [12] the inclusive *we* in public speeches reduces the hierarchy between the speaker and the audience [12]. Furthermore, the rhetorical use of *we* aims to achieve a positive self-presentation, populism and national or in-group solidarity as stated by Van Dijk [35]. These rhetorical strategies in the context of this study contribute to shedding light on challenges and hardships that have affected the global maritime discourse community years back.

(1) We, at IMO, work tirelessly to ensure that these changes and challenges are supported by a constantly enhanced and strengthened regulatory framework (IMO, 6 June 2022)

(2) We are witnessing significant turmoil in the world today, and global shipping has not escaped its impacts. (IMO, 5 April 2022)

Also, using the pronoun *we* adds to the emotionality of speech, is evidence of the connection between the discourse and emotions in public speeches [19]. This is particularly evident in the use of collocations *we* + modal verb, as in *we can*, *we must*, *we will*, *we can*, adding to the persuasion and determination of the speaker to achieve the common in-group goals. The most prevalent modal in the corpus – *must* – is found in 138 instances, where it typically collocates with active verbs (*ensure*, *build*, *continue*, *recognize*, and *support*). Furthermore, in 40 of the statements, the modal *must* is followed by trinomials enhancing the meaning of the secretary-general's speeches (sentence 3). For example, the following message was delivered during a speech to students at a graduation ceremony at the World Maritime University in Malmö.

(3) We *must* do everything in our power to cultivate a wide range of *thoughts, skills and attitudes* (IMO, June 2021).

(4) Use the strength of *knowledge, skill and unity* in heart and mind wisely to serve the world's maritime and oceans constituency with dedication, perseverance, focus and hard work (IMO, 2016)

According to Fairclough, the use of *we* in the corpus as a sign of the life-world narrative is often accompanied by a metaphorical discourse showing that the speaker identifies with the audience by putting him or herself in the same boat [12]. The metaphors primarily used in *we* statements implying co-membership rely on universal concepts guided by humanity's knowledge of the world [28]. In our paper, this knowledge is linked to conventional concepts – those of *ocean* and *sea*, *sailing* and *voyage*. Some established phrases are "seafarers belong to a big (IMO) family", "sailing together towards the same course", and "common goals towards a safe voyage". The noun *voyage* is used in literature and has a metaphorical meaning, evoking memories of seafaring in ancient times when sailors were more endangered by the unpredictable perils of the sea.

(5) We must continue this voyage together towards preserving the environment by accelerating decarbonization of the maritime sector. (IMO, 2022)

(6) Let us all work to finish this "voyage together" – the voyage that our predecessors started all those decades ago. (IMO, 2016)

Use of the second-person pronoun *you* features high frequency, as shown in Figure 2, and is indicative of the speaker's intention to achieve conversationalisation [12] or an effort to become more interactive with professionals in a specific domain. In the following example, the secretary-general addresses the seafarers on the occasion of the seafarers' workshop concerning seafarers' rights; he uses *you* and *we* interchangeably. In this way, the speaker joins his seafaring community in the declaration that "seafarers matter".

(7) In doing so, you are showing your solidarity with seafarers all over the world and adding your voice to our Day of the Seafarer message for 2017 – which is that "Seafarers Matter" (IMO, 2017)

In the mentioned speech to graduating students of the World Maritime University Ceremony, the secretary-general uses "you and I" in order to mitigate the distance between himself and the students. A powerful rhetorical effect is achieved by referring to the speaker's (the secretary-general's) own past as a student of that university. Therefore, a self-portrayal strategy is used to turn personal experience into a collective one, where the "I" becomes "you" [40] – the students.

(8) You and I now share the experience of being WMU alumni. Seize the day, and employ all you have learned at WMU. Use the strength of knowledge, skill and unity in heart and mind wisely to serve the world's maritime and oceans constituency with dedication, perseverance, focus and hard work. Only then you will be proud to say "I am a WMU Alumni".

Another rhetorical strategy noted by Fairclough, employed by the speaker to show engagement with the audience and build a relationship of solidarity and shared goals [12], presupposing that the speakers share the same ideologies and goals with their co-community are 'question–request' interrogatives as stated by van Dijk [36].

(9) The human element in shipping is, and always will be, critical.
How can we do more?
What can we do better? (IMO, 2021)

(10) What of the other opportunities you – and we – face? (IMO, February 2020)

4.2 Prevalent concepts in the secretary-general's narratives

In this part of the analysis, we interpret the most dominant concepts in the analysed narratives. In order to generate the dominant topics, we focused on the topical words extracted from the collective corpus, as presented in Figure 2 and topical phrases, as presented in Figure 3. By means of quantifying words and linking their relationships in the context, based on occurrence and co-occurrence, the program *Wordstat* automatically generates topical phrases which helps the discourse analyst to explain the use of the established patterns in a particular context. It is worth noting that we may expect similar results with any simple linguistic program using the n-gram option but the difference is that our program offers quick and smooth analysis and offers a rich choice of illustrative representations and maps facilitating the researcher to visualise the established patterns.

It can be seen that the topics belonging to different fields overlap, suggesting that concepts relating to the maritime domain cannot be delimited as they are heavily intertwined and interdependent. This may be justified by the fact that the maritime profession is a global one and one may expect similar results in other international domains as well (e.g. economics, transportation and mechanical engineering). For example, the concept of sustainability is present in all maritime topics and embraces digitalisation, energy and globalisation.

In order to verify the concepts in the texts, we used the *Topics* option in *WordStat* to retrieve themes grouped around the most prevalent key words and phrases as shown in Table 2. By counting the most frequent words
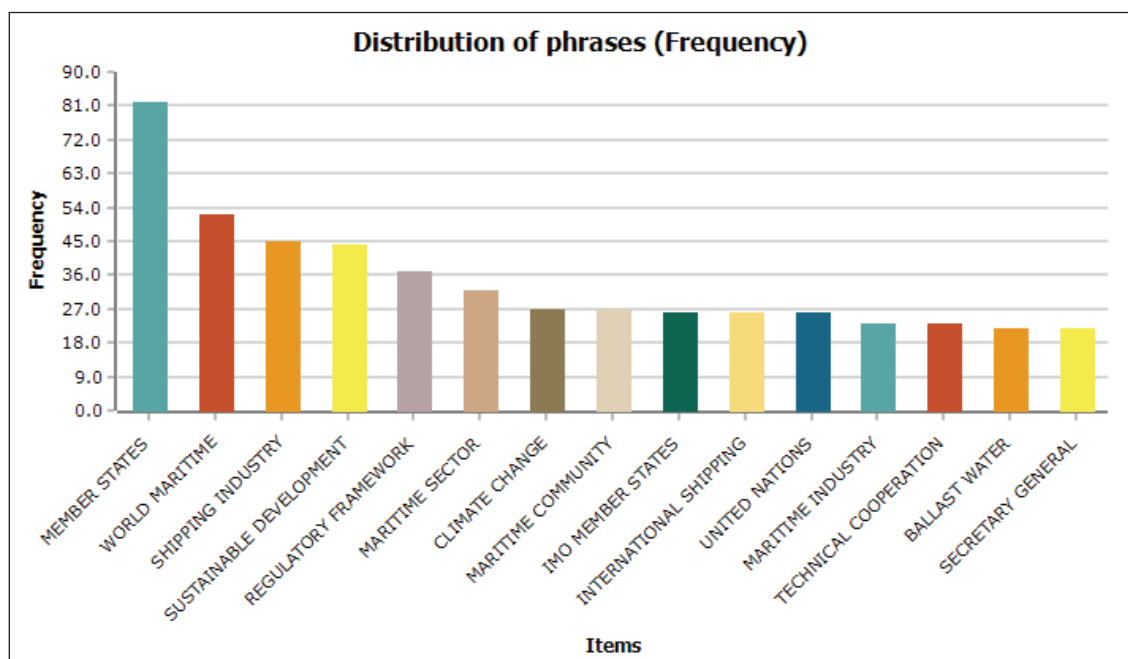

Figure 3 The 10 most prevalent phrases in the corpus (*WordStat* program)

and phrases, the program categorises them into topics, the number of which can be set by the user. Narrowing down the number of topics to five, we compiled the following list of topics:

Table 2 Topics in the secretary-general's corpus

Topic	Keywords
Trends development and vessel management	Trends, sustainable development, innovative, autonomous shipping, automation, innovative, technology, digital, digitalization, era, cyber, cyber security, sustainable cyber security, energy efficiency, emerging, energy, drive, improvement, vessel, areas, opportunities, sustainable vessel management, construction, IMO regulates
Environmentally sound, security balance	green house emissions, IMO GHG strategy, GHG strategy, construction; vessel; sustainable energy; emerging; automation; fuel; areas; improvements; management; bring; technologies; ships; era; sustainable technology; sustainable future, energy efficiency;
Sustainable development	sound; environmentally; secure; safe; efficient; mission; promote; operation; instruments; shipping; aspects; autonomous; clean; sustainable; element, environmentally sound; sustainable shipping; promote safe; human element; scoping exercise; sustainable shipping, sustainable future, carbon fuels, marine fuels
World maritime theme	nations; united; family; development; sustainable; goals; part; vision; achieve; helping; global; planet; agency; women, gender, gender equality human, empowering women, promote human efforts; sustainable development; seafarers, pandemic, people, united nations; sustainable development goals; united nations family; specialized agency; global efforts;
Globalisation and the legal framework	regulatory; framework; efficiency; technological; adopt; develop; global economy, global trade; present; environmental; introduction; considered; security; sustainable regime; global; opportunities; pandemic, health challenges; standards; shipping; implemented; regulatory framework; global trade; global shipping, sustainable environmental performance; global regulatory framework; global regulatory regime; technological advances present challenges; global efforts; global, pandemics

Source: Author

Regarding the five topics obtained in Table 2, the following concepts will be further elaborated in the paper. These are:

1. New technologies;
2. Safety and security;
3. Sustainable shipping and a sound environment;
4. People in the maritime industry and regular framework and globalisation; and
5. Globalisation and internationalisation of shipping.

4.2.1 New technologies

The concept of new technologies refers to the application of autonomous equipment, navigators' competencies in handling them, the international legal framework addressing construction, maritime and training institution requirements, training and human resources, economic sustainability, and environmental protection [31]. Undoubtedly, innovative processes in the shipping industry enhance the reputation and the optimisation of ships and seaports. However, novel information technologies and innovations depend on various factors such as: economics, politics, human resources, national regulations, administration, infrastructure [8]. In light of the mentioned complexity of the concepts regarding technologies, the secretary-general warns that the seafaring community needs to keep a balance and adapt to sustainable solutions. He emphasises the need to adapt to "goal-based standards" and to maintain balance in implementing new technologies regarding the standards. The speaker implies this need for a harmonisation of polarised contrast by using the contrastive conjunction *but* and *as well as* (in the sense of *likewise*). Furthermore, the use of binominals adds to the importance of the people affected by the new waves in the shipping community ("personnel onboard and ashore").

The following segment of the secretary-general's speech delivered at the International Maritime Forum evidences the confronting trends in shipping (conventional vs. new, technology vs. safety and security, technologies vs. environment, autonomy vs. personnel welfare) and the reconciling rhetoric of the IMO representative, highlighting the need to manage balance.

(11) Today, we live in a world in which new technology seems poised to have a transforming impact on all our lives. Shipping is no exception…. In the future, I expect technology will create a more interconnected and efficient industry, more closely integrated with the whole global supply chain. **But** technological advances present challenges **as well as** opportunities, so their introduction into the regulatory framework needs to be considered carefully. We need to balance the benefits against safety and security concerns, the impact on the environment and on international trade, the potential costs to the industry and, not least, their impact on personnel, both on board and ashore. The regulatory framework will need continual adjustment to keep pace with technology (IMO, 2017).

While referring to the need to harmonise polarised aspects of shipping in sailing toward a safer future, the speaker is simultaneously taking action according to van Dijk [35] and active intervention [23] regarding the state-of-the-art in shipping.

(12) These are directly relevant to EMSA's priority areas set out in your five-year plan: sustainability, safety, security, simplification and surveillance (IMO 2022)

4.2.2 Safety and security

The binomial *safety and security* occurs in 22 examples. The fact is that, despite new technologies and a higher level of ship autonomy currently implemented, safety and security have always been at the forefront. Successful ship and fleet management shifts require adequate knowledge of autonomous systems. The lack of such knowledge, along with the complex non-navigation risks, may lead to safety, security and environmental protection [18]. Thus, in our corpus, the binomial *safety and security* implies considerations that are tightly connected with the economy, environmental protection, and seafarers' overall welfare.

(13) We must ensure that these 'mega trends' are carefully integrated into shipping, balancing the benefits against safety and security concerns, the impact on the environment, on international trade, and particularly, on the human element (June 2018)

(14) Clearly there has to be a common approach, so that ships can trade around the world and that countries receiving foreign ships can be confident that they do not place their own safety, security and environmental integrity at an unreasonable risk by accepting them.

There is no doubt that maintaining the balance in managing the new paradigms mentioned by the secretary-general, or a shift toward contemporary developments, is the concern of all maritime stakeholders, those ashore and aboard. Hence, the discourse in the contemporary holistic narrative in shipping should be focused on the human element, primarily on the safety and security of seafarers [20].

4.2.3 Sustainable shipping and a sound environment

The adjective *sustainable* is applicable to all aspects of the maritime domains. It is a broad term that covers many issues relating to traditional vs. modern navigation, digitalisation, information technologies, transportation or, using an umbrella phrase – "a maritimisation approach". The approach embraces many aspects of modern shipping that strive to obtain a holistic approach "including all parts of the maritime region with all layers of the phenomenon which may be defined as a puzzle. If one of the elements is missing, the model cannot be established properly" [7]. In our corpus, the term *sustainable* in the secretary-general's speeches collocates with the words *development* in 84 instances, *future* (29), *maritime* (28), *shipping* (24) and *transport* (9). As seen in Table 2, the term *sustainable* permeates all five concepts.

The concept of a sustainable marine environment grew in importance in the post-COVID era. The decrease in vessel mobility in 2019 and the fall of the global economy raised the question of future policies regarding carbon emissions, the protection of ships from volatile substances, and energy efficiency. However, possible future research will focus on identifying optimum vessel dimensions in order to manage economies of scale, the flexibility of service provision and zero-carbon fuel [26], [18]. Notably, the word *sustainability* makes clusters with words categorised under the topic *trends management* as presented in Table 2: sustainable cyber security and digitalisation. Specifically, the new trends associated with the digitalisation era, automatisation and smart technologies also brought inevitable maritime threats, which must be efficiently managed from the viewpoint of seafarers and environmental safety [8].

4.2.4 People in the maritime industry and regulatory framework

Good seamanship is the core of the seafaring profession. In a globalised world where many traditional jobs are being transferred to autonomous manning systems and onboard IT systems, one question that many nautical experts and academics are considering is how the new autonomy will affect the anticipated uncrewed vessels and the consequent deficit in qualified crew members, especially qualified ship officers [18], [21]. Moreover, seafarers are concerned about the nature of traditional seafaring jobs in the future [22].

Speaking about the new transition era and the 'collision' between the old and the novel currents in shipping, the secretary-general expresses his worry for seafarers, their health and rights in the first place, as also prescribed in the IMO agenda.

(15) We also highlight the important role that seafarers play in all the work carried out by IMO, reflecting the key role of the human element in the safe, secure and environmentally sound operation of ships (IMO, 2022)

(16) Your expertise supports the process to ensure that technology and the human element operate compatibly in a manner that promotes maritime safety as a first priority. (IMO, 2022)

Prioritising people and the "human element", not only on board ships but also in the coastal maritime community, is expressed through the more generic term *people*. Thus, the secretary-general acknowledges the credentials of the numerous protagonists involved in the seaborne trade ashore. In light of this, the IMO has raised policies to promote the inclusiveness of all stakeholders and the welfare of seafarers [2].

(17) I urge all stakeholders to join us in ensuring that the people working in our industry remain at the centre of everything we do.

The above considerations are translated into numerous activities implemented by the IMO, including seminars, enhanced media campaigns and active promotion of social networks and digital platforms (IMO Twitter, Facebook, Instagram, LinkedIn, IMO e-Learning). Seafarers, professionals and stakeholders with maritime-related careers are encouraged to participate in campaigns and share their experiences. The IMO has established special days dedicated to long-term shipping tradition and seafarers. The most rec-

ognised are World Maritime Day,[1] Day of the Seafarer[2] and International Day for Women in Maritime.[3]

(18) If the fundamental nature of work is changing, this is the perfect time to re-examine and re-assess traditional roles and expectations in the workforce – and that means embracing diversity, and equality.

(19) Together we can work to overcome the challenges including advocating the many laudable professions in the industry as well as the advantages of the transferability of maritime training and skills to jobs on land and in other industries to attract more interest in maritime training.

The human factor or human element is crucial in the maritime industry. As seen in the statement, it not only covers seafarers but also human resources employed ashore. The fundamental IMO conventions, such as SOLAS, MARPOL and STCW, deal with the human element. In addition, the *IMO Maritime Labour Convention* aims to protect seafarers and enhance their welfare and social rights onboard ships. Globalised shipping encompasses many topics relevant to the maritime community members' mental and physical wellbeing, skills and performance, work environment, intercultural relations, safety climate and the concept of safety culture [1].

(20) To make sure that the human element is fully integrated in our work and given the importance it deserves, the IMO Assembly, in December 2021, revised the Organization's Strategic Plan to now include the Human Element as a key Strategic Direction, providing a framework for enhanced engagement. I urge all stakeholders to join us in ensuring that the people working in our industry remain at the centre of everything we do (IMO 2022).

4.2.5 Globalisation and internationalisation of shipping

Internationalisation is an integral feature of the shipping industry. Seafaring is a centuries-old seaborne activity covering navigation over a huge area of world's water surface. "For more than 200 years, the maritime industries have constantly crossed borders" [33]. The fact is that 90 per cent of the trade in commercial goods is carried out by

ships. However, shipping is much more than transport, it subsumes a range of economic, financial, cultural, national and international issues. The concepts of globalisation and shipping are intertwined and require a "dialogue connecting historians of various specialist backgrounds", and present an "interplay of continuity and change, with social scientists' interest in the forces shaping the present-day world" [29].

4.3 Trends in concepts development – a seafarer at the core of shipping

This part of the paper was motivated by one fact observed during the initial reading of the paper – we noticed somewhat different tendencies in the occurrence of the established concepts over the past seven years.

The data presented in Figure 4 provide a timeline view of the major concepts. Looking from an overall perspective, the trend is more or less steady. The exceptions, however, are the concepts of sustainability, development, safety, and women. This growth can be explained by the fact that the post-COVID era in the maritime industry brought intense considerations of technological innovations regarding the construction of smart ships, LNG, megaships, digital sensors, materials, fuels, solar and wind energy capacities with the aim of making "marine technology a real land of opportunity for businesses of all sizes greener shipping" [24]. A distinct issue relates to the concepts of safety and security and risk assessment in a more autonomous environment [18]. Concerning the issue of human resources, the evolving themes are: unmanned ships, as opposed to conventional manning; the scope of artificial intelligence tools; digital technologies in seafarers' training and competencies [15]. A remarkable increase in the term 'seafarer', peaking in 2022, is associated with the post-COVID concern that brought to the fore questions related to the seafaring profession, health and social welfare. From 2019 to the present date, the maritime narrative about human rights, social policies and gender quality is on the rise.

(21) In a broader context, our focus on safety remains strong; seafarers' issues are as important as ever (IMO, 2019)

(22) The wellbeing of seafarers and fishers remains a priority for IMO. Their health, education, safety and legal protection are vital issues for us – and, I can assure you, for the shipping industry, as well (IMO, 2020)

(23) Medicines, food, fuels and personal protective equipment – all delivered by seafarers even as COVID-19 has gripped the world (2020)

No less importantly, the mental wellbeing of seafarers during the pandemic was shattered and brought into question [27].

(24) On the contrary, we must ensure that seafarers' welfare is properly taken into account (...) And in doing so, we must promote diversity and gender parity including diversity in maritime.

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[1] *World Maritime Day* has been celebrated since 1978 and is organised by the IMO annually. It embraces a number of content-based themes (the topic for 2022 was "New technologies for greener shipping"). World Maritime Day is celebrated on the last Thursday of September. All stakeholders are invited to contribute to highlighting troublesome domains in shipping and share them via social networks (#WorldMaritimeDay).

[2] *Day of the Seafarer* has been officially established since the revision of the IMO STCW convention (25 June). It tends to celebrate the unique profession of seafarers and strives to promote good seamanship, but also to address shortcomings in the maritime profession (https://www.imo.org/en/About/Events/Pages/Day-of-the-Seafarer-2018.aspx).

[3] *International Day for Women in Maritime* was proclaimed in 2021 after the IMO Assembly passed a resolution declaring an International Day for Women to be celebrated each year on 18 May. The purpose is to support the visibility of women in the maritime industry and enhance their participation in maritime sectors, both on board and on shore.
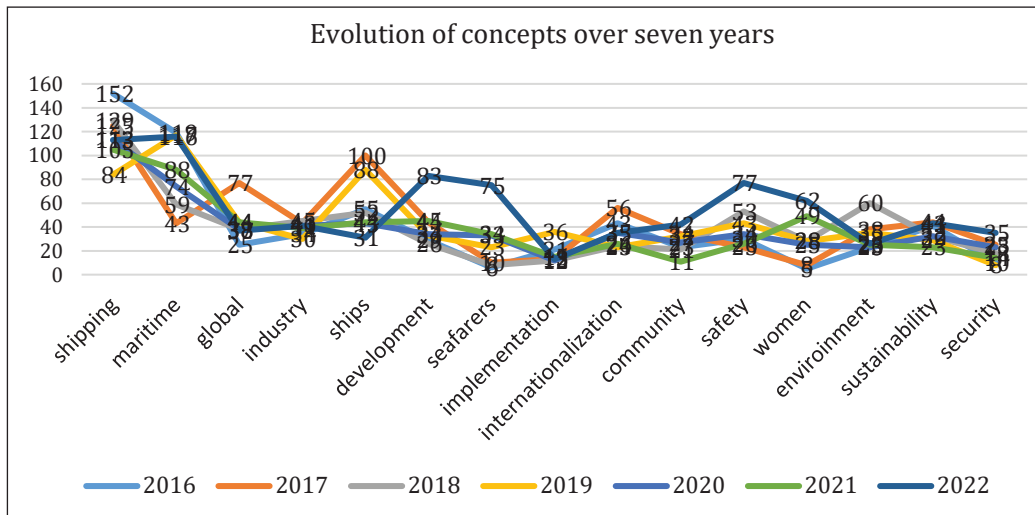
Figure 4 Development of trends in the past seven years

Last but not least, regarding the shortage of female officers in the maritime sector, primarily in management positions, the IMO has intensified campaigns to encourage the participation of women in the maritime sector. The emergence of women in seafaring and their space in media is not a discursive but a social action, evidencing a turn away from being a seafarer's wife to a woman seafarer. It evidences the implicit discourse used by new media to send a message [41] as is the case with images placed on the IMO of successful female pilots and captains, women in maritime business, usually at the ship's helm or at the onshore workplace.

5 Conclusions and recommendations

The aim of this paper was to establish the major concepts prevalent in the secretary- general's narratives published over the last seven years. We are aware that concepts change quickly, especially keeping in mind the dynamic nature of the maritime profession and its international character. The findings of the paper confirm that external factors such as the COVID-19 pandemic impact the other currents in this domain. Therefore, interrelated topics, such as energy efficiency, technologies development, greener shipping, safety and security and digitalisation, must be analysed holistically in terms of their proper legal and institutional implementation. As mentioned earlier, we narrowed the choice of topics to five, as we showed that they are more or less overlapping and interconnected; they are tightly dependent categories. Hence, we believe that a broader analysis that would include academic articles could provide more detailed results regarding the number of actual topics and concepts.

The first part of the analysis establishes the speaker's rapport with the discourse community he or she belongs to or the in-group of people [35]. The analysis of the occurrence of the first person pronouns – the singular *I* and the plural *we* – shows that the speaker shares concern with his in-group of people or his community.

In the second part of the paper we focused on determining the predominant concepts. We opted for five concepts and believe they could be extended if the analysis were to cover a larger corpus. Pragmatic analysis of each concept was conducted with the assistance of relevant professional literature. We also highlighted the polarisation between traditional and novel trends that have affected the lives of modern seafarers. However, these disparities do not exclude each other; they complement each other toward "a safe voyage". Moreover, in the new transition era, the focus of the secretary-general's narratives emerging from each concept are: people, the human factor, seafarers, men and women, students and "and all of us who heed the call of the sea" [16].

The present study adopts a discourse analysis approach to contemporary narratives of the maritime discourse community. In doing that, we tried to present how these narratives reflect the diverse maritime domains. For that purpose, we relied on the literature from discourse studies, maritime academic literature, reports and the IMO website. Understanding the specific maritime discourse community requires a comprehensive insight into the subject, so we purposely chose the secretary-general's narratives. Limitations of the study may be sought in the fact that the corpus could be expanded with narratives from the IMO website, research articles and professional maritime literature; however, we intentionally opted for the narratives of the leading person in the IMO, as these summarise events related to emerging maritime topics. It is likely that analyses of larger corpora would also yield similar topics to those established in this paper.

We believe that a broader study dating back to the analyses of a more extensive time range would provide a worthwhile chronological narrative about the changing trends in shipping. Such research would reveal the velocity and dynamics the shipping has been through and how the paradigms unfolded through this centuries-long profession.

References

[1] Barnett, M. L., & Pekcan C. H. (2017). The human element in shipping. *Encyclopedia of maritime and offshore engineering* 1–10. doi: 10.1002/9781118476406.emoe033.

[2] Baumler, R. (2021). Quantification of influence and interest at IMO in Maritime Safety and Human Element matters. *Marine Policy*. doi: 10.1016/j.marpol.2021.104746.

[3] Bhatia, V. K. (2013). *Analysing Genre. Language Use in Professional Settings*, Routledge.

[4] Bocanegra-Valle, A. (2020). Applied Linguistics and Knowledge Transfer: Employability, Internationalisation and Social Challenges. In A. Bocanegra-Valle (Ed.) *Linguistic Insights: Studies in Language and Communicatio*n. Peter Lang, pp. 55–64.

[5] Bocanegra.Valle, A. (2017). Empowering the discourse of globalization in international organizations: The International Maritime Organization as a case in point. In M. Ángeles Orts, R. Breeze & Maurizio Gotti (Eds.). *Power, persuasion and manipulation in specialised genres: Providing keys to the rhetoric of professional communities*. Peter Lang, pp. 51–70.

[6] Cameron D. (2001). *Working with Public Discourse*. SAGE Publications, London.

[7] Çetin O., Irak D. M., & Kahyaoğlu N. (2020). A comprehensive model for a sustainable maritimization: 3-Layer Holistic Maritimization Model. *Maritime Policy and Management* 47: 1064–1081, doi: 10.1080/03088839.2020.1744756.

[8] Del Giudice, M., di Vaio, A., Hassan R., & Palladino R. (2021). Digitalization and new technologies for sustainable business models at the ship–port interface: a bibliometric analysis. *Maritime Policy and Management*, 1(37):1–38, doi: 10.1080/03088839.2021.1903600.

[9] Dževerdanović-Pejović, M. (2014). Analiza pomorskog diskursa, In S. Perović (Ed*.*), *Analiza diskursa: teorije i metode*, Institut za strane jezike: Podgorica, 175–197. ISBN: 978-86-85263-12-5.

[10] Dževerdanović Pejović, M. (2020). Learning technical genres – a blended learning approach. *Pomorstvo,* 34 (2), 212–222. https://doi.org/10.31217/p.34.2.2.

[11] Dževerdanović-Pejović, M. (2021). A discourse analysis of email communication on ships, 1ˢᵗ Kotor International Maritime Conference, November 26-27 Kotor, 2021, Montenegro, Book of abstracts, p. 27.

[12] Fairclough, N. (1995). *Media Discourse*. London: E. Arnold.

[13] Fairclough, N. (2003). Analysing Discourse: Textual analysis for social research. London: Routledge.

[14] Germond, B. & Wa Ha F. (2019). Climate change and maritime security narrative: the case of the international maritime organisation. *J Environ Stud Sci* 9, pp. 1–12.

[15] Ichimura, Y., Dalaklis D., Kitada M., & Christodoulou A. (2022). Shipping in the era of digitalization: Mapping the future strategic plans of major maritime commercial actors. *Digital Business*, 2 (1): 1–12, doi: 10.1016/j.digbus.2022.100022.

[16] IMO Revised strategic plan for the organization for the six-year period 2018 to 2023, International Maritime Organization, A 32/Res.1149, 28 January 2022.

[17] International Maritime Organization (IMO). (2022). "Introduction to IMO." https://www.imo.org/en/About/Pages/Default.aspx.

[18] Kim, M, Joung T-H, Jeong B. & Han-Seon P. (2020). Autonomous shipping and its impact on regulations, technologies, and industries. *Journal of International Maritime Safety, Environmental Affairs and Shipping*, 4 (2): 17–25.

[19] Koschut, S. (2018). The power of (emotion) words: on the importance of emotions for social constructivist discourse analysis in IR. *J Int Relat Dev* 21: 495–522, doi: 10.1057/s41268-017-0086-0.

[20] Larsen, L. S. (2021). Seafarers and the Maritime Sector: A Quest Towards Safety and Security, Global Maritime Forum, https://www.globalmaritimeforum.org/news/seafarers-and-the-maritime-sector-a-quest-towards-safety-and-security, accessed June 2022.

[21] Lušić, Z., Bakota M., Čorić M., & Skoko I. (2019). Seafarer Market – Challenges for the Future. *Transactions on Maritime Science*. 8(1): 62–74. doi: 10.7225/toms.v08.n01.007.

[22] Mallam S. C., Nazir S., & Sharma A. (2019). The human element in future Maritime Operations – perceived impact of autonomous shipping. *Ergonomics*, doi: 10.1080/00140139.2019.1659995.

[23] Martin, J. (2022). Rhetoric, discourse and the hermeneutics of public speech. 42(2): 170–184, Sage Publications.

[24] McLeman, L. (2021). Five future trends in the shipping industry. Marine Challenge Fund Lead, Cornwall Development Company.

[25] Mitroussi K. (2013). Ship Management: Contemporary Developments and Implication. *The Asian Journal of Shipping and Logistics.* 29 (2): 229–248.

[26] Monios, J. & Wilmsmeier G. (2022). Maritime governance after COVID-19: how responses to market developments and environmental challenges lead towards degrowth. *Marit Econ Logist* 24: 699–722, doi: 10.1057/s41278-022-00226-w.

[27] Pauksztat, B., Andrei D. M., & Grech M. R.(2022). Effects of the COVID-19 pandemic on the mental health of seafarers: A comparison using matched samples. *Safety Science* 146, doi: 10.1016/j.ssci.2021.105542.

[28] Perović, S., & Vuković-Stamatović M. (2021). Universality and cultural variation in the conceptualisation of love via metaphors, metonymies and cultural scripts: The case of Montenegrin. *Círculo de Lingüística Aplicada a la Comunicación*, *85*: 45–60, doi: 10.5209/clac.7353.

[29] Petersson, N. P., Tenold S., & White N. J. (2019). Shipping and Globalization in the Post-War Era: Contexts, Companies, Connections. In N. Petersson, S. Tenold, & N. White (Eds.) Shipping and Globalization in the Post-War Era, Palgrave Macmillan, pp. 1–6.

[30] Rivkin, B. S. (2021). Unmanned Ships: Navigation and More. *Gyroscopy Navig*. 12(1): 96–108, doi: 10.1134/S2075108721010090.

[31] Sharma A. & Kim T. (2022). Exploring technical and non-technical competencies of navigators for autonomous shipping. *Maritime Policy and Management* 49(6): 831–849, doi: 10.1080/03088839.2021.1914874.

[32] Swales, J. (1990). Genre Analysis – English in Academic and Research Settings, Cambridge: Cambridge University Press.

[33] Tenold, S. (2020). Constantly crossing borders: The international nature of maritime history. The International Journal of Maritime History 32(2): 403–413.

[34] Tenorio, E. H. (2011): Critical Discourse Analysis: An overview. *Nordic Journal of English Studies,* 10(1): 183–210.

[35] Van Dijk, T. A. (2006). Politics, ideology and discourse. In R. Wodak (Ed.) Elsevier Encyclopedia of Language and Linguistics, Volume on Politics and Language, pp. 728–740.

[36] Van Dijk. T. A. (2008). *Discourse and Context: A Sociocognitive Approach*. New York, Cambridge University Press.

[37] Van Dijk, T. A. (2014). *Discourse and Knowledge: A Sociocognitive Approach*. New York, Cambridge University Press.

[38] Wiese, H. & Simon H. (2002). Grammatical properties of pronouns and their representation: An exposition. *Linguistik Aktuell/Linguistics Today* 52, pp. 1–21.

[39] Wodak, R. (2012). Politics as usual: Investigating political discourse in action. In J. P. Gee & M. Handford (Eds.), The Routledge Handbook of Discourse Analysis, London, Routledge, pp. 525–542.

[40] Wodak, R. (1989). 1968: The power of political jargon — a 'Club-2' discussion. In R. Wodak (Ed.), Language, Power and Ideology, John Benjamins Publishing Company, pp. 137–163.

[41] Wortham S. & Reyes A. (2015). *Discourse Analysis beyond the Speech Event*. Routledge: London and New York.

[42] Wordstat, https://provalisresearch.com/blog/analyzing-open-ended-question-conversation-expert/.