Big data and operational management

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The Times They Are A-Changin'

Never has the future of shipping been this interesting!

- Autonomous vehicles give us new technologies and applications.
- Other industries proves new business concepts Life cycle, power by the hour, SaaS
- The communication ship-shore has finally become cheap and reliable

At the same time shipping is going through one of its worst crisis in many decades, opening up to disruptive innovation.

The opportunity is there ready to be ceased!

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Digital opportunity

Today, very few customer have any idea on how to

- Collect data locally, filter, compress and remotely
- Analyse
- What the initial findings will be
- How to then use the data systematically now and in a continuous learning loop.

Therefore, there are a lot of “**unsubstantiated**” ideas on how to perform digitalisation.

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Inefficent subdivisions

A large portion of general shipping is subdivided between owner – manager – charterer.

While this allows for transparent benchmarking and a high degree of competition, the total system is quite short-sighted and does not encourage optimization in equipment or system

At the same time other industries like aviation has moved towards life cycle management and power by the hour

It appears there is an opportunity for disruption

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Technical structure – lost opportunities

Charterer

Ship Manager

Ship Owner

Bank

Shipyard

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Technical structure – lost opportunities

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Technical structure – lost opportunities

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Conservative and non-Communicative

Sailors have an 12 Commandments!

- 11th commandment – We have always done it like that
- 12th commandment – We have never done it like that

From young age sailors are trained in a culture of “not questioning”
Then they are promoted, and finally work in the shore office, managing Captains and Chief Engineers brought up in the same culture

Anecdotal evidence

At the same time, most shipping companies considers accurate measuring and data collecting tool including satellite communication and internet access an unnecessary expense, removing the opportunity for close monitoring of equipment and systems.

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Onboard digitalization

Local data storage and monitoring

Entertainment

Safety Security

Design

Bridge

DP

Hydro acoustics

Integrated Automation System

Eniram

Shaft seal

Batteries

Switch boards

Scrubber

Tank level

Propeller

gearbox

Shaft generators

Engines

Waste Heat

thruster

LNG system

bearing

Generators

Sewage

Inert – N2

Fuel system

Air compressors

Ballast BWT

OWS

Evaporator

DW Pumps

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Digital opportunity

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Real time vs. Post analysis

Risk-reward profile and reliability of monitoring/predictions determines need for real time monitoring.

Real time

Post analysis

Post analyisis only for slow changing data with low risk.

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The waiting game

Lack of interest in the shipping community?

- It seems most shipping companies are waiting on the side line
- Cruise segment has bandwidth and most items on cost side in their own hands

Battle of the “Eco systems”

The shipping community needs a common eco system for data transmission, custody and analysis. Some attempts has been made by the likes of DNVGL and GE.
History shows that the firsts are rarely the winners. (myspace, google+)

If we need to, Wärtsilä will create such platform, together with partners

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THANK YOU!

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