UNIDO BRUSSELS Report

2nd edition of UNIDO Brussels Dialogue on Economic Intelligence, co-organised by SKEMA Business School and the French Academy of Economic Intelligence
(8 October 2021)

The Practice of Digital Transformation Intelligence & Its Impact on Organizational Performance
2nd edition of UNIDO Brussels Dialogue on Intelligence Economic
8 Oct 2021, 10h30 – 12h00 (CEST, Brussels) Webinar

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EXECUTIVE SUMMARY

Digital transformation is of great importance to the growth prospects of various organizations. Understanding competitive intelligence, labeled as digital transformation intelligence, is therefore critical to succeed in the digital age. Following the UNIDO Brussels conference on competitive intelligence in 2019, this second edition of UNIDO Brussels dialogue on intelligence economic was organized in partnership with SKEMA business school¹, the think tank “Académie de l’Intelligence Économique”² and Competitive Intelligence World Wide³. The discussion focused on the impacts of digital transformation on organizational performance.

Moderated by Patrick Gilabert, Head of the UNIDO Brussels Liaison Office, the webinar started with a presentation from C. Bisson, Ph.D. Scientific Director at SKEMA Business School. He presented his research paper on The practice of digital transformation intelligence and its impact on organizational performance. His analysis introduced the concept of digital transformation intelligence (DTI) and explores the practices of DTI in 78 companies. He concluded that the results of DTI practices demonstrate a positive correlation with the levels of agility of an organization.

Claude Revel, in charge of the future SKEMA think-tank, underlined the innovative contribution of this research and the accuracy of the data collected to evaluate the extent to which the DTI supports the practices of strategic and competitive intelligence. She also explained the importance to collect and analyze internal information within a company or an organization. Philippe Clerc, expert advisor in international foresight at CCI France and president of l’Académie de l’Intelligence Économique, then examined the vital role of international organizations in supporting the digital transformation in developing countries. Henri Dou, director of Competitive Intelligence World Wide and researcher at Centre national de la recherche scientifique brought the discussion on the field of epigenetics of quantum cognition and intuition. He recommended making available simple systems for small and medium enterprises as well as for individuals to present multisets of information according to precise subjects.

The discussion provided insights into opportunities and future perspectives for the digital transformation in the context of achieving the Sustainable Development Goals (SDGs).

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¹ SKEMA business school is a French institution devoted to higher education and research in France and worldwide.
² Académie de l’Intelligence économique is a French think tank for strategic reflection and innovation, essential for decision-makers faced with disruptions and emerging challenges.
³ Competitive Intelligence World Wide is a French think tank that aims to foster a multidisciplinary dialogue in the fields of education, research and entrepreneurship.
ABBREVIATIONS

AI  Artificial Intelligence
COVID-19  Coronavirus Disease 2019
DTI  Digital Transformation Intelligence
ISID  Inclusive and Sustainable Industrial Development
ITC  International Trade Center
SDGs  Sustainable Development Goals
SEI  Strategic Economic Intelligence
UNIDO  United Nations Industrial Development Organization
WIPO  World Intellectual Property Organization
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AGENDA

Date: 8 October 2021
Co-organizers: Skema Business School, Académie de l'Intelligence Économique
Moderated by Mr Patrick Gilabert

1) Welcome remarks and introduction
   Mr Patrick Gilabert, UNIDO Representative, UNIDO Office Brussels

2) Presentation of the research paper “The Practice of Digital Transformation Intelligence & Its Impact on Organizational Performance”
   Mr Christophe BISSON, Ph.D, Scientific Director, Msc "International Strategy and Influence". Associate Prof in Anticipatory Systems.

3) Panelists' comments and presentations
   • Ms Claude Revel, President of SAS Information & Strategies, president of GIE France Sport Expertise, strategy and influence advisor of Skema Business School
   • Mr Philippe CLERC, President of the Academy of Economic Intelligence
   • Mr Henri Dou, Director of Research at the CNRS

4) Closing remarks
   Patrick Gilabert

5) Q&A session

6) Conclusion

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4 This research report written by Christophe BISSON and Nabila Boukef, associate professor at SKEMA introduces the concept of digital transformation intelligence (DTI)
For this second edition of the dialogue on economic intelligence, co-organized by SKEMA Business School and the Academy of Economic Intelligence in France, Patrick Gilabert, head of the UNIDO office in Brussels, insisted, in his introduction, on the centrality of digital transformation and the need for organizations to adapt to it. Patrick Gilabert recalled that this transformation was a priority for the European Commission and the United Nations in order to achieve sustainable and inclusive economic development.
1/ Context

Christophe Bisson, first speaker, presented his research on "The Practice of Digital Transformation Intelligence & Its Impact on Organizational Performance", co-directed with Nabila Boukef. His research highlights the vital nature of digital transformation within organizations. For C. Bisson, digital transformation, understood as "the use of information technology to transform business models, processes, habits and capabilities of the enterprise", must be driven by the market and not directly by technology. The speed at which organizations transform is one of the key drivers of success in the marketplace. Anticipating and managing risk therefore enables companies to adapt effectively to market changes. Covid-19, an accelerator of systemic organizational changes, reinforces the challenges of digital transformation.

The originality of Christophe Bisson and Nabila Boukef’s research lies in the joint analysis of Strategic Economic Intelligence (SEI) and digital transformation. From this analysis emerges the notion of Digital Transformation Intelligence (DTI). For Christophe Bisson, DTI corresponds to "tools and methods for collecting data and information that will be processed and analyzed, allowing the dissemination of high value-added knowledge". This collection of data should make it possible to anticipate both opportunities and threats.

"The legal gathering of data and information, which is then processed and analyzed, allowing one to disseminate insights concerning the competitive landscape. DTI helps organizations anticipate opportunities or threats impacting the digital transformation of the entire enterprise as well as specific aspects of doing business."

Christophe BISSON, Ph.D.
Scientific Director, Msc "International Strategy and Influence". Associate Prof in Anticipatory Systems.
2/ Methodology

The agility and adaptability of 78 organizations in relation to digital transformation was described through a questionnaire (data collection) based on 5 components⁵:

- Gathering;
- Attitude;
- Technological Support for the gathering and analysis of data/information;
- Use;
- Location for having people and unit dedicated to DTI.

The agility of these 78 responding organizations was analyzed according to 12 criteria⁶, and was measured using a 7-point Likert scale (strongly disagree, disagree, somewhat disagree, neutral, somewhat agree, agree and strongly agree).

3/ Results ⁷

INFORMATION GATHERING FOR ITD :

"45% of respondents are at the "basic" level. Only mainstream, free and easily accessible media are used to gather information."

"50% of respondents are at the 'hunter' level. People specifically in charge of DTI spend time, money and effort collecting hard-to-find information."

"The remaining 5% of respondents are midway between Easy and Hunter."

ORGANIZATIONAL ATTITUDE TOWARDS ITD

"50% of respondents are at the "Strategic" level Long term, strategic approach to DTI by all departments and top management.

"15% of respondents are at the "Operational" level Top management is involved in DTI processes due to potential benefits. No strategic approach to DTI."

"24% of respondents are at the "Task-Driven" level Departments conduct DTI activities by themselves as needed. Top management is not involved."

"5% of respondents are at the "Immune" level Company believes it is immune to competitive and digital factors either because it is too small or it is too large."

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⁷ All results below come from the original study by Christophe Bisson and Nabila Boukef.
"The remaining 5% of respondents are midway between Task-Driven and Operational."

TECHNOLOGICAL SUPPORT FOR DTI

"17% of respondents are at the "High" level Machine learning, AI, text mining and semantic analysis are being used. Visualization of the results and mined information is available."

"49% of respondents are at the "Advanced Technologies" level High-level information scanning, storage, analysis and dissemination are done automatically by information systems."

"13% of respondents are at the "Average" level Simple off the shelf products or free tools are used for information scanning."

"18% of respondents are at the "Simple" level Only free and easily accessible tools not requiring training (e.g. websites, already available office applications)."

USE OF DTI IN THE DECISION-MAKING PROCESS

"10% of respondents are at the "Strategic" level Long-term approach involving all departments."

"31% of respondents are at the "Tactical" level Constantly watches industry, regulations and competitors to understand the impact on the firm."

"29% of respondents are at the "Disconnected" level. User acts on the information gathered by any means without analysis or validation with other departments."

"29% of respondents are at the "Unaware" level Occasional or non-user."

LOCATION OF DTI IN THE ORGANIZATION

"45% of respondents are at the "Designated" level Full-time unit tasked with DTI activities. This unit meets strategic requirements, talks with all relevant departments, and dissolves communication barriers."

"54% of respondents are at the "Ad Hoc" level No unit tasked with DTI activities within the company. Individual departments due to necessity do all the activities. Limited to no communication with other departments."
3/ Conclusion

The results of DTI practices show a correlation with the levels of agility of an organisation, as you can see in the table below:

<table>
<thead>
<tr>
<th>Agility Level</th>
<th>% of Respondents</th>
<th>DTI Practice Level</th>
<th>DTI practices</th>
<th>Organizational structure and processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Agile</td>
<td>6%</td>
<td>Basic business driven DTI</td>
<td>Easy gathering</td>
<td>Strategic attitude or Task-driven attitude</td>
</tr>
<tr>
<td>Not Very Agile</td>
<td>36%</td>
<td>Basic business driven DTI</td>
<td>Easy Gathering</td>
<td>Task-driven attitude</td>
</tr>
<tr>
<td>Somewhat Agile</td>
<td>33%</td>
<td>Strategic DTI but no dedicated location of DTI</td>
<td>Hunter Gathering</td>
<td>Strategic attitude</td>
</tr>
<tr>
<td>Agile</td>
<td>22%</td>
<td>Strategic DTI Advanced technology support</td>
<td>Hunter Gathering</td>
<td>Strategic attitude</td>
</tr>
<tr>
<td>Highly Agile</td>
<td>3%</td>
<td>Strategic DTI High technology support</td>
<td>Hunter Gathering</td>
<td>Strategic attitude</td>
</tr>
</tbody>
</table>

Through these analyses, C. Bisson highlighted the need for organizations to rapidly improve their agility in the context of digital transformation in order to remain competitive.

"More specifically, our results highlighted three interrelated components of DTI practices, which are strategy (strategic DTI vs. basic business driven DTI), organizational structure and processes (existence of dedicated BU for DTI vs. ad hoc structure) as well as digital capabilities that impact the agility of the company." Christophe Bisson
PANELISTS' COMMENTS

Claude Revel, President of SAS Information & Strategies, president of GIE France Sport Expertise, strategy and influence advisor of Skema Business School, praised the "remarkable and innovative" work of Christophe Bisson. C. Revel underlined that "For the first time, we measure with solid data how digital transformation supports the practice of strategic intelligence. An intelligence based on the triptych: anticipation, economic security and influence."

For C. Revel, this research work highlights recurring and nagging problems related to the practice of intelligence for digital transformation. This work also shows an improvement in the awareness of organizations.

These recurring problems include:
- Recognition and funding;
- The demand for a return on investment.

Positives and improvements include:
- Half of the respondents consider that DTI must be managed at a strategic and long-term level;
- 1/3 of respondents link DTI to anticipating standards.

C. Revel underlined several needs for the development of DTI in organizations:
- Internal information sharing;
- Internal information gathering.

In conclusion C. Revel stressed that the research work "The Practice of Digital Transformation Intelligence & Its Impact on Organizational Performance" by C. Bisson and N. Boukef shows that "digital tools must be implemented in a more strategic and general logic". The understanding of SEI by company managers is nowadays for C.Revel, a necessity.
Philippe Clerc, President of the Academy of Economic Intelligence and expert advisor for Studies & Foresight at CCI France, praised the "innovative work and frequent organization of seminars on SEI" by UNIDO, the World Intellectual Property Organization (WIPO) and the International Trade Center (ITC). For P. Clerc, the current transformation of the productive base in the world raises many questions and brings to the forefront the issues of digital transformation.

The study by C. Bisson and N. Boukef comes at a time of accelerating transition processes (climate, digital and energy). For P. Clerc, "Disruptive innovations such as deep learning, big data and artificial intelligence should allow private and public organizations to access an increased intelligence". To do this, companies must arm themselves with an arsenal of strategic intelligence and develop, as explained by C. Bisson, their organizational agility.

The "Digiplote" platform, set up by the French Chambers of Commerce and Industry (CCI) for all French companies, allows them to follow their evolution in the digital transformation. This tool works at the request of the client and is market driven. For P. Clerc, the inclusion of economic intelligence and agility in the functioning of this platform as presented by C. Bisson would be positive.

In conclusion, P. Clerc emphasized that while the collection and sharing of data on a large scale is a major challenge, it also raises risks in terms of confidentiality and constitutes a real cybersecurity challenge. In this sense, the first priority, as explained by C. Bisson in the context of digital transformation, is to improve the quality of services for users.

8 The Academy of Economic Intelligence, which represents the community of practitioners and researchers in SEI, is a place of projection and methodological innovation.
Henri Dou, Director of Research at the CNRS, underlined the increasing complexity of the world and the growing interconnection of risks, making the decision-making process more and more difficult. In this sense, digital transformation, thanks to the tools deployed (massive data collection) could help facilitate decision-making.

For H. Dou, "both digital transformations coupled with intuitive intelligence should be used to fully benefit from the information transformation that is underway”. He emphasized the need to develop a holistic observation attitude (looking at an object as a whole), thus enlightening the decision-making process. He also referred to the transition between static and dynamic decision making, offering several "degrees of support for available choice options".

H. Dou concluded his presentation with three main recommendations:

- "Developing a better training in information retrieval, analysis and critical thinking;
- Developing informative endogenous functions in the organizations;
- To make available simple systems for small and medium enterprises as well as for individuals to present multisets of information according to precise subjects."

"To partially control global interconnected risks and these interactions, a filter based on Big Data and AI is placed between the mass of information and decision-makers, so called Digital Transformation. This aspect is becoming a necessity in order to better understand his environment."

Henri DOU
Director of Research at the CNRS
CONCLUSION

The dialogue, initiated by four business intelligence experts, brought together many attendees from academia, the private sector and international organisations, based in Europe, Africa and Asia, concerned with the challenges of digital transformation and the industrial revolution 4.0. As with many of the events organised by UNIDO, an exciting debate emerged between heterogeneous actors from different backgrounds but with similar expectations. Strengthening the collaboration with think tanks, academia and the private sector is a priority for UNIDO. As recalled by the different speakers, the digital transformation opens up new potentialities, however, to overcome the challenges facing today's societies, cooperation is required.
ANNEX - BIOGRAPHIES OF SPEAKERS

Christophe BISSON, Ph.D.

He is the Scientific Director of the Msc "International Strategy & Influence" program at SKEMA Business School. He explores and develops strategic and anticipatory systems 'augmented' by artificial intelligence. He has received international and national awards for his work and won research funds from the American NSF, EU, etc. Christophe is SCIP World advisory board member, Full member of WFSF (a consultative partner of UN and UNESCO), board member of the scientific committee of Academie d'Intelligence Economique, member of the Economic Intelligence committee of CGEM RSK among others.

Claude REVEL

Claude Revel is a French former high civil servant. She was in charge of the national French competitive intelligence in 2013-2015. She also had a private and teaching experience. She now runs her own private company. She is in charge of the future SKEMA think tank. Claude is a former student of the National School of Administration (ENA1980) and a graduate of the Institute of Political Studies of Paris and in Business Law (University of Nice then University of Paris II). She is the author of numerous books and articles and participates regularly in conferences as a speaker.

Philippe CLERC

He is currently expert advisor for Studies & Foresight at CCI France, the national organization of the French Chambers of Commerce and industry and president of the Academy of Economic Intelligence. He is the president of the International Francophone Association for Economic Intelligence and a founding member of the Open University of Dakhla in Morocco. He is expert and consultant for WIPO, the world intellectual property organization and for the International trade center in Geneva.

Henri Dou

Manager and Founder of CI World Wide Think Tank, he is a Director of Research at the CNRS. Consultant to SDC (System Development Corporation), he joined the University as Professor of Information Science and developed the first courses in Technological Watch and Competitive Intelligence in France, Brazil, Malaysia, and Indonesia. As a Pioneer of this field in France, he has published numerous books and international conferences and has supervised more than a hundred doctoral theses in this domain.

Patrick GILABERT

He is Head of the UNIDO Office in Brussels and representative to the European Union institutions and OACPS Secretariat. Before his appointment in Brussels, he was UNIDO Dep. Representative to the UN in New York, and Representative in Hanoi, Vietnam and Antananarivo, Madagascar. He holds a PhD in Scientific Information - Tech Foresight from the University of Aix-Marseille, complemented by the Trium Executive MBA from HEC Paris, London School of Economics (LSE), New York Stern Business School.