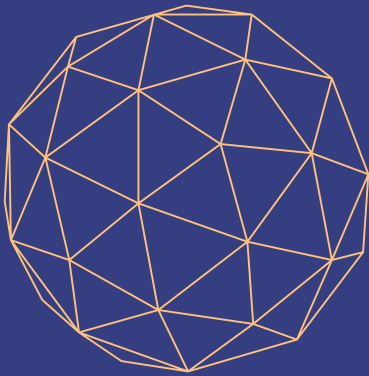# *Good In Tech* RESEARCH NEWS

Rethinking innovation and technology as drivers of a better world for and by humans

Data processing and responsible digital innovation

MELLET KEVIN

Customer value in the big data regime
Relationship marketing professionals grappling with data regulations (legal, technical, economic)

LOUVION ALEXIS

Study of the Data Protection Officer function

BALAGUÉ CHRISTINE
HAIDAR AHMAD

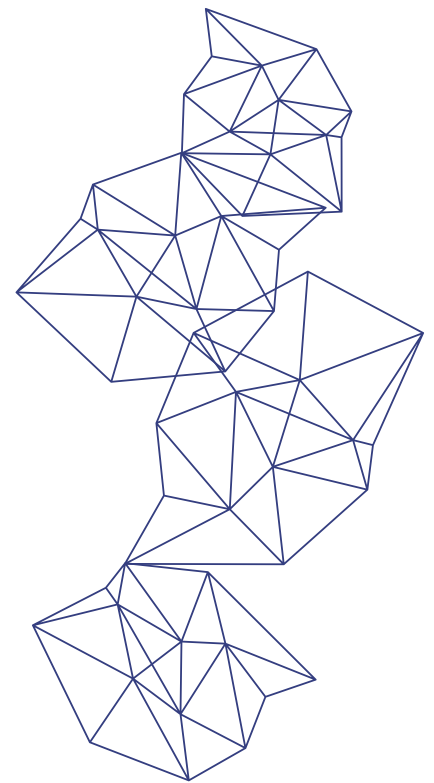Responsible digital innovation in terms of management.

GOOD IN TECH VISION

Good In Tech main objectives are to create knowledge around four research areas and to contribute to the dissemination of this knowledge not only in academic and pedagogical spheres but also to corporations, decision-makers, regulators and the general public.

To this end, the Chair aims to create and develop an ecosystem of interactions between research, companies, students from the two partner academics and political institutions, civil society in order to raise awareness of all stakeholders on this new paradigm on responsible digital technologies and innovation.

The chair also aims to develop international partnerships, particularly in Europe, to share the issues of responsible digital innovation with international committees.

Finally, the Chair aims to share the results of academic works and debates it organizes with national and European political institutions in order to inform and influence public policies.

Working on customer value in the big data regime: Relationship marketing professionals grappling with data regulations (legal, technical, economic)

Kevin Mellet

Kevin Mellet

Kevin Mellet is Assistant Professor of Sociology at Sciences Po, and researcher at the CSO. He is the Scientific head of the "Marketing & society" master's degree within the Innovation Management School of Sciences Po. His research work mainly draws on economic sociology and science & technology studies to study market techniques in the digital age. Current research interests focus on the emerging data marketing landscape and the formation and regulation of the personal data economy. His involvement in the 'Good on Tech' Chair is twofold. First, he promotes and relays the Chair's activities and calls for projects within the community of Sciences Po teachers and researchers, in conjunction with the two chairholders, Dominique Cardon and Christine Balagué. Then, he is involved as a researcher in the activities of the chair, with a research project on the compliance practices of companies in the field of relationship marketing.

WHY IS THIS TOPIC IMPORTANT ?

The aim of this article is to analyse **the range of practices and techniques included in the term data marketing**. Data now occupies a central place in our economic, social, and political world. It is at the heart of the concerns of companies whose aim is to extract the most value from this data.

The author analyses the **structure of this new data market** which represents a new source of value. This market is made up of internal actors (data scientists) but also of intermediary actors who provide companies with a service of economic valuation of their data.

The challenge of this research is therefore to understand the processes and constraints (professional, legal, technical) by which companies manage to produce, process and add value to the personal data to which they have access.

> **The aim here is to shed light on how the production of customer knowledge is developed, at the interface between commercial and the market**
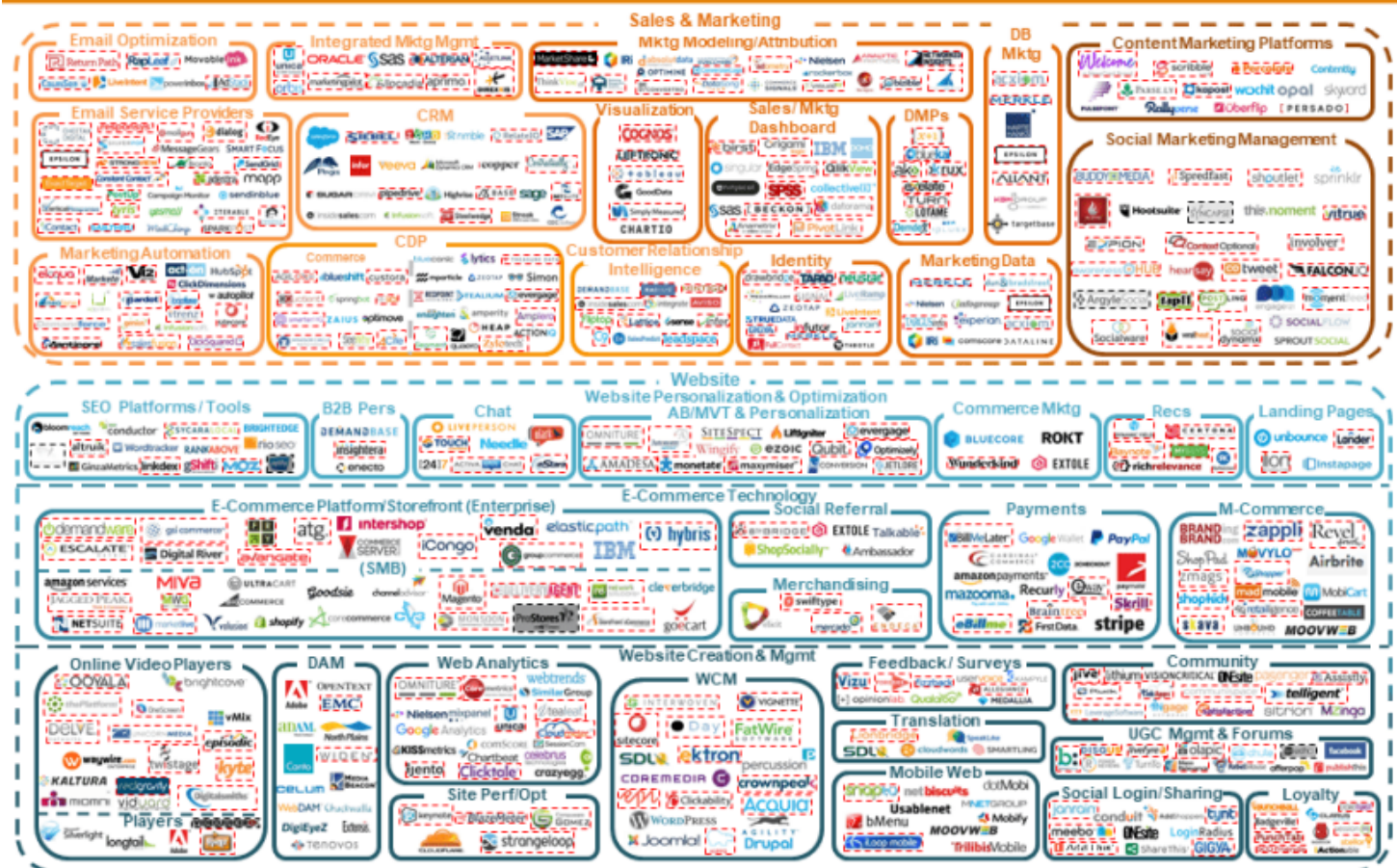
This article looks at **all spheres of data production**, which may originate from the company itself (first party data) or come from the outside (third party data).

Furthermore, as personal data is considered as sensitive, the author examines in more detail **to what extent privacy sets a limit to the use of data.**

METHODOLOGY

This article is the result of an economic sociology survey. The author uses a qualitative method based on in-depth interviews conducted with professionals of the data marketing sector.

"Marketing Technology Lumascape" A popular representation of the value chain and the many intermediaries of marketing technologies (2022).

14 interviews were conducted exclusively with actors belonging to the first set of the value chain of marketing technology intermediaries represented above (sales & marketing). These include CRM (customer relationship management), CDP (customer data platforms), DMP (data management platforms), email service providers, marketing automation, etc.

These actors are market intermediaries developing a range of tools and/or services aimed at supporting companies in building and valuing their customer databases.

This survey is also based on some thirty interviews conducted between 2015 and 2020 **with actors in online advertising, relationship marketing and personal data regulation.** The author also conducted an analysis of the professional press and participated in several trade fairs and conferences over the last ten years.

KEY FINDINGS

- The first use of customer databases dates from the 1970s-1980s with the development of Customer Relationship Management (CRM). **Data marketing is therefore an extension of older marketing practices.** However, it is based on a set of transformations in the IT and software infrastructures of data. These evolutions make it possible to process and exploit data more massively and more efficiently, thus producing a new economic environment.

- Data professionals consider the company as **a set of channels ensuring the constitution and circulation of data flows**. Marketing technology intermediaries intervene to ensure the proper interfacing of tools and the communication of internal and external systems. Two groups of actors can be distinguished: the first are the integrators who connect the various systems together to ensure consistency, for example by avoiding duplication. The second group ensures the implementation of a consolidated database by assembling the data of a single client under a single identifier.

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Data marketing and the multiple intermediaries and actors that promote it produce a set of promises, sometimes contradictory (...) These promises are filtered by actors who, behind the commercial façade and the 'offers' packaged in a very generic and mimetic way, organise their activity within coherent universes, framed by technical, professional and legal regulations.

- The survey identifies three main vectors of data use: **The first is CRM, based on the use of customer databases** for decision support or loyalty purposes. **The second is direct marketing**, which aims to reach new customers through mailings. **The third vector is called "extended CRM"**. It consists in using customer data for targeted media advertising. This vector, based on cookies, makes it possible to include or exclude certain profiles from advertising campaigns.

- **The world of data marketing is subject to professional, technical, and legal regulation**. Data marketing is highly sectorized, each actor operating within a specific perimeter. In addition, the use of personal data is subject to compliance with regulations such as the European GDPR. French data protection authority (CNIL) is particularly vigilant regarding all issues relating to the tracking of Internet users by cookie and the respect of their consent.

KEY TAKEAWAYS

> Internal (first party) and external (third party) data interact and are organised into coherent and harmonised databases by digital marketing intermediaries.

> Data generates value in three main ways: the retention of existing customers, the attraction of new customers, and the use of targeted advertising based on the data of existing customers.

> Data marketing is subject to technical and professional regulation: data actors operate in a specific area of exploitation. The use of data is also subject to extensive and growing legal control.

Study of the Data Protection Officer function

Alexis Louvion

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Alexis Louvion

Alexis Louvion is post-doctoral fellow in sociology. In 2019 he defended his thesis in sociology of labour at the Paris Dauphine University. His work earned him the 2019 Pôle Emploi thesis prize and the Dauphine 2021 Foundation young researcher prize.

Between 2021 and 2021 he worked as a researcher at the Centre for Employment and Labour Studies (CEET) and taught as a lecturer in sociology at the Paris Dauphine University.

Mandated by the Good In Tech Chair, he has been conducting research on Data Protection Officers since 2021.

WHY IS THIS TOPIC IMPORTANT ?

Since its introduction in 2018, the General Data Protection Regulation (GDPR) has created new obligations for European companies processing personal data.

As required by **Article 37 of GDPR**, public organisations, companies processing sensitive data or carrying out systematic data processing must appoint a Data Protection Officer (DPO).

In the event of a public inspection, if unlawful data processing is found, financial penalties of up to 4% of turnover can be imposed on companies. It has for example been the case in 2022 in France where the CNIL has fined Google 150 million euros for violating the GDPR.

DPOs are therefore responsible for ensuring that companies comply with the GDPR. They control the processing of data, the use made of it and the length of time it is kept.

❝

More than just a lawyer, the DPO must be able to interact with the company's departments that handle a lot of data in order to ensure that they do not exceed the limits imposed by the law.

This **research questions the perimeter of the DPO's job** and the profile of the people working in this extremely recent job.

As most small companies do not have a full-time DPO, the survey focuses on DPOs of large companies in order to effectively observe the scope of an emerging profession.

METHODOLOGY

This research is based on two complementary methods. On the one hand, the author conducted **thirty semi-directive interviews of one to two hours with DPOs from large companies.** The DPOs were questioned about the scope of their duties, the nature of their vocation and the career progression that this profession represented for them.

This work is also based on o**bservation work carried out within the DPO training courses** provided by Sciences Po Paris and the Institut Mines-Télécom Business (IMT-BS). The author sought to analyse the nature of the teaching given to DPO trainees while informally interviewing them about their training and their observations.

It should be noted that these two courses are significantly different, as the IMT-BS course is aimed at M2 students, whereas the Sciences Po course is more of a training course to legitimise the claim of already established workers to get this post.

KEY FINDINGS

DPOs are mainly lawyers. However, they are distinguished by their specific ability to translate the law in an intelligible way. They must therefore have good communication and teaching skills in order to become real data managers for the other departments of the company (particularly marketing).

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The aim of the DPO is to be seen as a business booster and not a simple legal expert imposing legal constraint

The importance and legitimacy of the DPO's job vary according to the company and the sensitivity of its managers to the subject. **In general, too few financial resources are still granted to the DPO** insofar as CNIL checks are still considered infrequent.

The role of the DPO includes many administrative tasks (information and justification of personal data processing, application of the right to be forgotten by users, etc.).

KEY TAKEAWAYS

> TheDPO function, which is still new, is not occupied in the same way in all companies. It may be a full-fledged position in large companies or be combined with another position in smaller companies. There are also shared DPOs working for several companies.

> **Most DPOs are legal experts.** However, there are no specific requirements to become DPO, it depends on the expectations of companies which can be more or less important. However, training courses are emerging, and a certification questionnaire has been introduced by the CNIL.

RESPONSIBLE DIGITAL INNOVATION IN TERMS OF MANAGEMENT

Christine Balagué & Ahmad Haidar

Christine Balagué

Christine Balagué is HDR Professor at IMT-BS and holder of the Good in Tech Chair (www.goodintech.org). Her research focuses on modeling the behavior of connected individuals, ethics of technology and AI, and responsible digital innovation. She is also a member of several national committees: CSA expert committee on online disinformation, Defense ethics committee, Haute Autorité de Santé (French health organization recommendations impact commission, executive committee of Cap Digital. As Vice-President of the National Digital Council from 2013 to 2016, she is also co-author of several reports submitted to the French government on digital issues. She published more than 50 research articles in scientific journals or international conference proceedings as well as several books on society and economic digital metamorphosis.

Ahmad Haidad

Ahmad Haidar is a researcher at Paris Saclay University's LITEM laboratory and sponsored by the Chair Good In Tech since November 2020. His research focuses on the net societal contribution of Artificial Intelligence algorithms, using an econometric model developed with Prof Christine Balague's supervision. Ahmad holds a dual Master's degree in Economics from Lebanese University, and Business Management. His memoir is titled "The Impact of Digital Transformation and Artificial Intelligence on Economy." He also assisted in developing a database and data processing for the American University of Beirut project as a research assistant. Additionally, as a trainee at the Central Bank of Lebanon and other alfa banks

WHY IS THIS TOPIC IMPORTANT ?

This article examines the concept of Responsible Digital Innovation (RDI) applied to management.

Digital innovation refers to the creation of products and services resulting from the use of digital technology. Due to innovation, companies are confronted with new ethical issues such as privacy, neutrality, transparency, accessibility... More broadly, innovation presents four types of potential harm: public health risks, environmental degradation, societal harm and economic harm.

This research assumes that to address these issues, innovation management needs to adopt a more global and transversal strategic vision. Therefore, this paper aims to provide a framework for companies to investigate responsible digital innovation and to identify its different dimensions and sub-dimensions. After developing a unified definition of RDI, the paper's results highlight five dimensions:

- RDI strategy
- RDI specific challenges
- Organization and Key Indicator Performance (KPIs)
- Users
- Catalysts

Finally, the article also details the various barriers to RDI.

METHODOLOGY

To define and study the concept of RDI, between April and June 2021, the authors conducted 18 qualitative semi-structured interviews with innovation or digital managers from companies and public organizations.
The authors' sample included managers working for large companies (41.2%), small and medium companies (29.4%), business associations (17.6%) and territorial collectivities (11.8%). The authors asked them about their definition of RDI, their experience in terms of RDI practices, and the main challenges related to this field.

KEY FINDINGS
How to define RDI

Based on the interviews, the article identifies several aspects of RDI:

- **Having a positive environmental and societal impact:** developping an ethical and inclusive digital model that has a positive impact on society which could be based the 17 Sustainable Development Goals (SDG).

- **Being responsible for the ecological footprint of digital innovation:** limiting data storage and using RDI to improve ecological efficiency.

- **Building a digital trust at the service of business and citizens.**

- **Building innovation on shared values**: bring a principled European vision of digital innovation defending data privacy, justice, autonomy...

- **Reflecting upon what must be transformed**

- **Considering RDI as a structural element of competitiveness**

RDI dimensions and practices

RDI Strategy

Having a specific RDI strategy implies four leading practices:

- **Creating a mission-based status for the company:** developing strategies aiming to impact society and elaborating a code of ethics for digital innovation.

- **Integrating RDI in Corporate Social Responsibility (CSR).**

- **Positioning the digital product of service as RDI 'by design':** thinking about the impact of innovation at any stage of the process.

- **Creating a corporate culture on responsible digital innovation:** communicating within the company and training employees.

Digital specific challenges

According to the paper, there are **six main challenges** that digital innovation-orientated companies should address:

- **Impact of digital innovation on the environment:** necessity to decrease the carbon footprint of digital innovation.

- **Data protection:** compliance with the GDPR and respect of the data privacy.

- **Artificial intelligence and algorithms:** building trustworthy artificial intelligence, avoiding new biases with algorithms, defining strict and explicit rules of AI usage...

- **Data and information system security:** obligation to secure information systems due to geopolitical risks and economic competition.

- **Digital sovereignty:** need to host data in Europe and to select European technical solutions.

- **Inclusiveness:** necessity to consider inequalities in digital access.

Organization and KPIs

Several KPIs are essential to manage RDI:

- **Collaboration and partnerships:** necessity to collaborate with external partners on RDI.

- **Large-scale training:** implementing regular training sessions on different topics such as 'ethics, 'RDI', 'eco-design'...

- **Selection of partners and suppliers:** applying RDI criteria to choose suppliers and partners.

- **Human Resources and organization**: Creating jobs specifically focused on RDI.

- **KPIs:** Creating specific KPIs pf the societal and environmental impact of RDI.

Taking users into account

- **Co-innovation with users:** integrating users in the innovation process.

- **Transparency toward users:** transparency about data collection, use and storage ...

- **Technology for users:** maximizing the benefit of technology for the users.

- **Data collection frugality:** minimize data collection in the innovation process.

- **Give control back to users:** providing users the means to check that the digital innovation is not harmful.

Catalysts

- **Top management support on different levels (CEO's level, CST responsible manager's support...).**

- **Benchmarking:** monitoring best practices.

- **Regulation:** compliance to European data protection, anticipation of future European regulation.

- **Trial/ error approach:** improvement based on learning dynamics.

- **Fundings:** dedicating fundings to RDI.

Barriers against digital innovation

- **Lack of scaling:** need to scale up RDI

- **Lack of knowledge**

- **Lack of indicators**

- **Organizational challenges:** need for transversality

- **Technical issues:** data anonymization, risk management ...

- **Lack of dedicated funding**

- **Controversies about RDI's societal and environmental impact.**

KEY TAKEAWAYS

> **The article identifies 5 main dimensions of RDI.** These dimensions themselves include sub-dimensions that can provide areas of reflection for both university researchers and companies.

> This framework enriches the existing literature on RDI. It can be used by the companies aiming to implement practices more responsibly in their digital innovation.

Good In Tech RESEARCH NEWS

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