

UMEÅ UNIVERSITY

MANAGING THE DIGITAL ENTERPRISE

## Individual Assignment 3

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October 20, 2023

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## 1. Core assumptions in digital transformation literature

In this Section, the core assumptions of Venkatraman in *The digital matrix: new rules for business transformation through technology* [9] and Westerman, Bonnet and McAfee in *Leading digital: Turning technology into business transformation* [8] are presented.

### Author of *The digital matrix*



Picture of Venkat Venkatraman<sup>1</sup>

Dr. Venkatraman holds a PhD from the University of Pittsburgh's (Katz Graduate School of Business, 1985). He specializes in the study of how established companies adapt to digital technologies. He published his knowledge in his book *The Digital Matrix: New Rules for Business Transformation through Technology* in 2017. [7, 8]

### Authors of *Leading digital*



Picture of George Westermann<sup>2</sup>

George Westerman is a Senior Lecturer at MIT Sloan School of Management and Founder of the Global Opportunity Initiative. He has written award-winning books and conducted research on digital transformation. [5, 9]



Picture of Didier Bonnet<sup>3</sup>

Dr. Didier Bonnet is specialized on digital transformation. He is a Professor at IMD Business School (Switzerland) and co-author of the book *Leading digital*. He is featured on broadcasts like the BBC or CNN. [1, 4, 9]



Picture of Andrew McAfee<sup>4</sup>

Andrew McAfee is a principal research scientist at MIT and co-founder of the MIT Initiative on the Digital Economy. He has written numeral books, including *Race Against the Machine*, *The Second Machine Age* and *Leading digital*. [2, 3, 6, 9]

To effectively understand and use the literature and recommendations, it is important to critically analyse and understand the core assumptions that underlay their suggestions. These assumptions might be the reader's position, the nature and market of the organization in question or its geographical context.

<sup>1</sup>Picture from <https://www.dukece.com/people/venkat-venkatraman/>

<sup>2</sup>Picture from <https://mitsloan.mit.edu/faculty/directory/george-f-westerman>

<sup>3</sup>Picture from <https://digitaltransformation2021.brightline.org/speakers/didier-bonnet/>

<sup>4</sup>Picture from <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/the-strategy-and-corporate-finance-blog/leadership-rundown-is-technology-a-force-for-good>

### 1.1. Top-down approach

In the books, the execution of the digitalization was suggested with a top-down approach. A top-down leadership approach in digital transformation can present challenges and lead to limitations. It often assumes that the employees are synchronized to a certain degree in terms of digital readiness and understanding. In reality, they might have different levels of digital understanding and readiness. In addition to this, top-down approaches can be slow in responding to challenges or changes, which can cause problems in the dynamic markets. Depending on the culture of the company or the location of the headquarter, a top-down approach might not find acceptance and employees do not feel valued in their opinions. The books assume a company and market environment, that is ready for digitalization and accepting a top-down approach to execute the changes. [8, 9]

### 1.2. Geographical context

The geographical context in which a company operates is a critical factor. It has a big influence on the company's culture, employees, business environment, and technological infrastructure.

To assess the pre assumptions that were made by the authors, the companies that were mentioned as an example were extracted and analysed. This extraction did not aim for completeness regarding finding every single example but there are enough data points to draw conclusions with, because most of the example companies are included. The extracted example companies and according headquarter positions and industries are listed in Appendice A and B.

In *Leading digital*, 14 of the 33 examined example companies have their headquarters in the USA. This can be seen in Figure 1, too. [9]

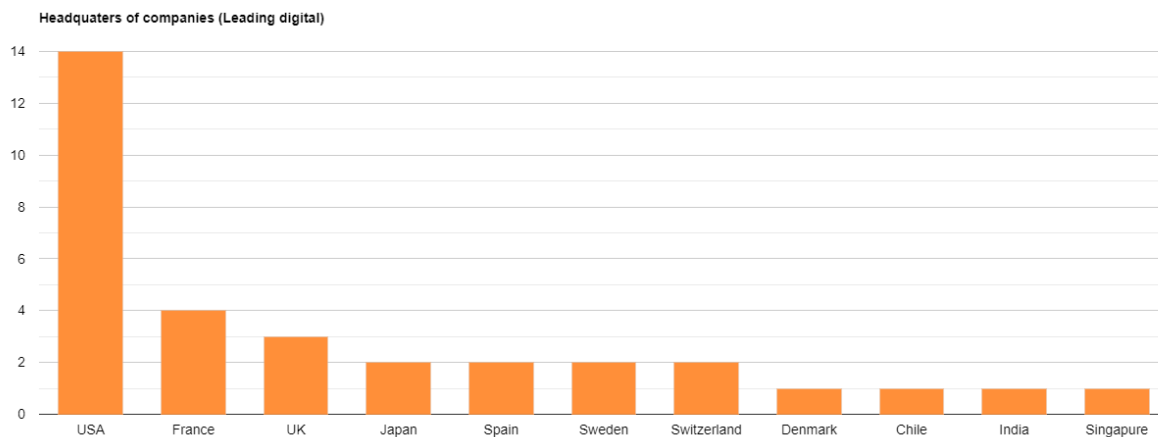


Figure 1: Headquarters of the example companies in *Leading digital* [9]

In *Digital matrix*, the majority of examined example companies is located in the USA, too. This can be seen in Figure 2.

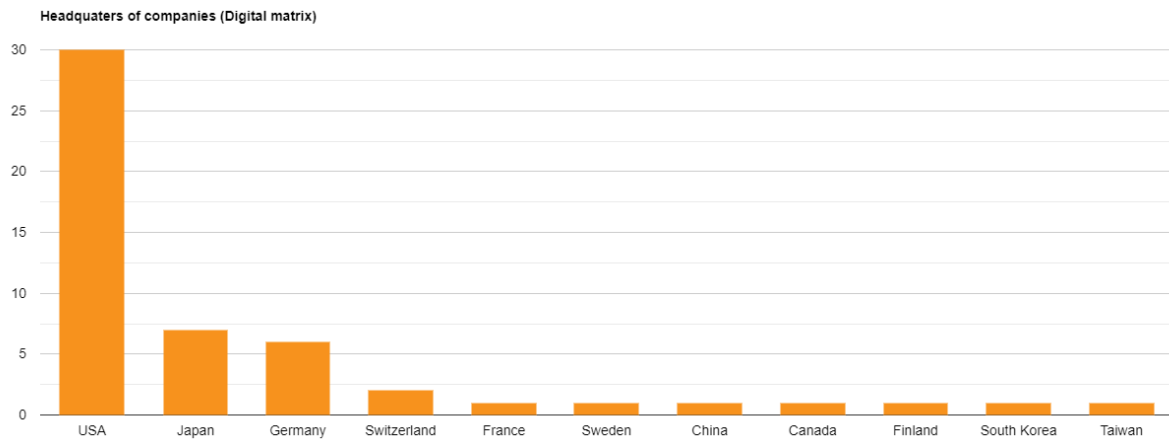


Figure 2: Headquarters of the example companies in *Digital matrix* [8]

In the graph in Figure 3, the distribution of the companies headquarters can be seen clearly, too. The majority of example companies are in the USA.

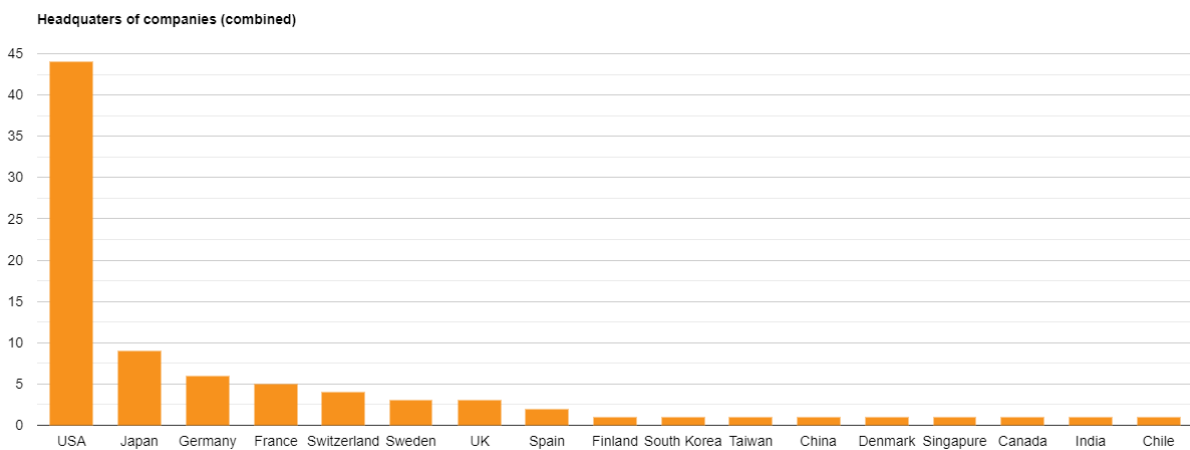


Figure 3: Headquarters of the example companies in both books [8, 9]

It has to be mentioned, that not only most companies are from the USA, the majority of countries that are listed are industrial countries. This leads to the conclusion, that the authors base their strategies on their experience with American companies.

### 1.3. Market of the companies

## 2. Consequences of assumptions in digital transformation

### 2.1. Top-down approach

### 2.2. Geographical context

| Definitions |
|-------------|
| Text        |

### 2.3. Market of the companies

## 3. Example for constraints

| Definitions |
|-------------|
| Text        |

## References

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- [8] Venkat Venkatraman. *The digital matrix: new rules for business transformation through technology*. LifeTree Media, 2017.
- [9] George Westerman, Didier Bonnet, and Andrew McAfee. *Leading digital: Turning technology into business transformation*. Harvard Business Press, 2014.

## A. Example companies in Leading digital

| Company name          | Headquarters | Industry                      |
|-----------------------|--------------|-------------------------------|
| Nike                  | USA          | Fashion                       |
| Asian Paints          | India        | Paint                         |
| Air France            | France       | Aerospace                     |
| Burberry              | UK           | Fashion                       |
| Caesars Entertainment | USA          | Hospitality and Entertainment |
| Codelco               | Chile        | Metal                         |
| P&G                   | USA          | Final goods                   |
| Pages Jaunes          | France       | Telephone business            |
| Starbucks             | USA          | Food                          |
| Capital One           | USA          | Finance                       |
| Toyota                | Japan        | Automotive                    |
| Zara                  | Spain        | Fashion                       |
| Apple                 | USA          | Electronics                   |
| Nordic Post Danmark   | Denmark      | Post                          |
| Nets                  | Singapore    | Finance                       |
| Nordic Post Sweden    | Sweden       | Post                          |
| Boeing                | USA          | Airline                       |
| Pernod Ricard         | France       | Food                          |
| Kraft                 | USA          | Food                          |
| Nestle                | Switzerland  | Food                          |
| L'Oreal               | France       | Cosmetics                     |
| Volvo                 | Sweden       | Automotive                    |
| Prisa                 | Spain        | Media                         |
| CVS                   | USA          | Pharmacy                      |
| Intel                 | USA          | Electronics                   |
| Barclays Bank         | UK           | Finance                       |
| Coca-Cola             | USA          | Food                          |
| TetraPak              | Switzerland  | Food                          |
| Seven-Eleven          | USA          | Food                          |
| eBay                  | USA          | Marketplace                   |
| UPS                   | USA          | Post                          |
| Lloyd Banking Group   | UK           | Finance                       |
| Tokio Marine Holdings | Japan        | Insurance                     |

Figure 4: Companies that were mentioned as examples in *Leading digital* [9]



## B. Example companies in Digital matrix

| Company name             | Headquarters | Industry                      |
|--------------------------|--------------|-------------------------------|
| BlackBerry               | Canada       | Electronics                   |
| Nokia                    | Finland      | Electronics                   |
| Apple                    | USA          | Electronics                   |
| Microsoft                | USA          | Electronics                   |
| Samsung                  | South Korea  | Electronics                   |
| HTC                      | Taiwan       | Electronics                   |
| Sony                     | Japan        | Electronics                   |
| Toshiba                  | Japan        | Electronics                   |
| Marriott Hotels          | USA          | Hospitality and Entertainment |
| AirBNB                   | USA          | Hospitality and Entertainment |
| Walmart                  | USA          | Marketplace                   |
| McDonalds                | USA          | Food                          |
| Uber                     | USA          | Transportation                |
| Netflix                  | USA          | Hospitality and Entertainment |
| Google                   | USA          | Electronics                   |
| Honda                    | Japan        | Automotive                    |
| General Electronics (GE) | USA          | Electronics                   |
| GM                       | USA          | Automotive                    |
| Ford                     | USA          | Automotive                    |
| Toyota                   | Japan        | Automotive                    |
| BMW                      | Germany      | Automotive                    |
| Mercedes-Benz            | Germany      | Automotive                    |
| Tesla                    | USA          | Automotive                    |
| Lyft                     | USA          | Transportation                |
| Amazon                   | USA          | Marketplace                   |
| Nike                     | USA          | Fashion                       |
| NewBalance               | USA          | Fashion                       |
| Adidas                   | Germany      | Fashion                       |
| Facebook                 | USA          | Media                         |
| Accor Hotels Group       | France       | Hospitality and Entertainment |
| Honeywell                | USA          | Aerospace                     |
| Novartis                 | Switzerland  | Pharmacy                      |
| IBM                      | USA          | Electronics                   |
| Monsanto                 | USA          | Food                          |
| InnoCentive              | USA          | Media                         |
| Nintendo                 | Japan        | Hospitality and Entertainment |
| Panasonic                | Japan        | Electronics                   |
| Siemens                  | Germany      | Electronics                   |
| Lenovo                   | China        | Electronics                   |
| Rethink Robotics         | Germany      | Electronics                   |
| Oracle                   | USA          | Electronics                   |
| SAP                      | Germany      | Electronics                   |
| BestBuy                  | USA          | Marketplace                   |
| Comcast                  | USA          | Telephone business            |
| Ericsson                 | Sweden       | Telephone business            |
| John Deere               | USA          | Automotive                    |
| Local Motors             | USA          | Automotive                    |
| Boeing                   | USA          | Aerospace                     |
| ABB                      | Switzerland  | Automotive                    |
| Mitsubishi               | Japan        | Automotive                    |
| Goldman Sachs            | USA          | Finance                       |
| PayPal                   | USA          | Finance                       |

Figure 5: Companies that were mentioned as examples in *Digital matrix* [8]