Webinar: Data-Driven Innovation in HR Functions

“Just as electricity transformed almost everything 100 years ago, today I actually have a hard time thinking of an industry that I don’t think AI will transform in the next several years”
Andrew Ng – Google Brain, Baidu, Stanford
Webinar: Data-Driven Innovation in HR Functions

1. Introduction (5 min)
2. State of AI in Human Resources (15 min)
3. What lies ahead: Starting your AI projects (15 min)
4. Setting Up an AI CoE (15 min)
5. Discussion Forum (10 min)
1. Introduction
We are a next-generation consulting firm

We are a global firm that has grown steadily over the past 20 years

- 2,000 Consultants
- 36 Offices across 18 countries
- $390M in revenue for FY20/21
- +19% increase in revenue FY19/20 despite C19

We invest heavily in tech and design to stay on cutting-edge and meet our clients’ evolving challenges

- 5 AI centers
- 2 Design Centers
- 600 Clients 92% returning

We cultivate expertise stemming from R&D activities and our proximity with our clients’ industries

- 4% Of our revenue invested in R&D
- 130k+ Followers on LinkedIn

Data-Driven Innovation in HR Functions
A pioneer mindset, enhanced by a unique blend of capabilities...

...to better serve our clients.

Delivering results through Business Expertise, the core of Consulting

Leveraging AI, emerging tech, and open innovation for augmented consultants

Reshaping projects and experiences through design & creativity for next-level impact

Making CSR a lever for profitable transformation

BUSINESS EXPERTISE & TRANSFORMATION

CONSULTING

CONSULTING by DESIGN

CONSULTING FOR GOOD
From Consulting to Augmented Consulting, a blend of Business & Tech expertise

Business Expertise

- Banking
- Energy & Utilities
- Insurance
- Compliance
- Consumer Goods & Retail
- Transportation & Logistics
- Government
- Healthcare
- Manufacturing
- Tech
- Telecoms & Media
- Marketing & Customer Experience
- Human Resources
- Procurement & Sourcing

Data Science

- Analytics
- Data quality
- Forecast
- Machine and deep learning
- NLP
- Speech to text
- Text mining
- Image recognition
- Data visualization

Augmented Consulting

This combination of Business expertise, Data Science and AI ecosystem with Heka is the foundation of the Augmented Consulting. It reflects the way our consulting offerings are evolving to take advantage of new technologies and innovative ways of working to innovatively address our client’s challenges.
2. State of AI in Human Resources
A Snapshot of HR Today

HR Professionals do not rely on gut feeling anymore, they make data-driven decisions for more strategic actions and stronger financial performance.
Journey To Become A Data-Driven HR Function: 3 pillars in 5 steps

**Step 1**
ALIGN
Align your vision and understand **why data is interesting** for your company and **what you want to achieve** with it

**Step 2**
STORE
Acquire and centralize the relevant data by **creating a data management organization using technology**

**Step 3**
ANALYZE
Start extracting insights from your data and understand **what are the main AI use cases applicable**

**Step 4**
DEVELOP
Build the necessary profiles and implement analytics functions and optimize business processes

**Step 5**
INNOVATE
Use your data and analytics to **innovate in products and transform the organization**

HR ANALYTICS – AI STRATEGY

DATA MANAGEMENT

VISION
Maturity of the HR Function Across the Journey

**Tactical HR**
- Multiple Data sources not integrated
- Data in isolation and difficult to analyse

**Operational HR**
- Ad-hoc descriptive reporting and metrics
- Reactive to business demand
- Basic reporting

**Strategic HR**
- Multi dimensional dashboard and analysis
- Operational reporting for decision making

**Data-Driven HR**
- Development of people models with data analytics
- Insight into drivers of performance and behaviours
- Centre of Excellence
- Development of complex models to anticipate issues
- HR as a profit centre

**ALIGN**
- Essential
  - Multiple Data sources not integrated
  - Data in isolation and difficult to analyse

**STORE**
- Enhancing
  - Ad-hoc descriptive reporting and metrics
  - Reactive to business demand
  - Basic reporting

**ANALYZE**
- Data & Analytics maturity
  - Multi dimensional dashboard and analysis
  - Operational reporting for decision making

**DEVELOP**
- Strategic Impact
  - Development of people models with data analytics
  - Insight into drivers of performance and behaviours

**INNOVATE**
Making the Business Case for data-driven HR

Selling data driven HR across the company

01. Make people understand the benefits of Data Driven HR for the organization

02. Onboard people from other functions (allows the capture of new kinds of employee data)

03. Prepare a business plan for the leadership team

04. Outline what you are hoping to achieve with data as well as the tangible benefits to the business and the employees

05. Be open and realistic about the time frame, business and costs disruption (don’t gloss over these issues)

How to go about this in the company

01. Depends on the size of your organization and on the usual process for starting new projects

02. Summarize your data strategy into key points that can be communicated in a short presentation

03. Keep it simple and brief

04. Be enthusiastic

05. Show examples how other companies are leading the way
Leverage Data From Every Source

**Primary People Data**
- Recruiting
- Learning
- Employee Salary
- Compensation
- D&I

**Emails**
- Surveys
- Secondary People Data
- Travel
- Wellbeing
- Demographic

**Business Data**
- Sales revenues
- Customer experience
- Safety
- Productivity

**CRM**

**External Data**
- Published research
- Trends / Benchmarking
- Reviews

**Social Media**

**Web**
Pathway to an Organization Automation & HR Data Driven Digitization

Sources of Data
Collect, store and process data
Leverage data and predict
Interactive displayed data
User Interface & User Experience (UI & UX) design

Artificial Intelligence
Robotic Process Automation

Automate Human’s Operation

Collect, store and process data
Leverage data and predict
Interactive displayed data
User Interface & User Experience (UI & UX) design

Data-Driven Innovation in HR Functions
Topics Addressed by HR Analytics

Recruitment
- Attraction
- Evaluation
- Hiring

Employee Wellbeing
- Employee fitness and well-being
- Community service
- Cultural activation

Employee Development
- On-boarding
- Ongoing development
- Career management

Employee Performance
- Goal setting
- Performance management
- Talent management
Benefits of HR Analytics

1. Time and money saviour and processes accelerator
2. Reliable predictions
3. Better and more reliable decisions
4. Meeting the organization’s goals
5. Accurate insights into organizational processes
Challenges of HR Analytics

- Bringing Together and Understanding Data from Many Sources
- Lack of Data Analytics Skills within HR
- Worries about Privacy & Compliance
- Insufficient IT Resources for HR Data Analytics
- Insufficient Support of Top Management
3. What Lies Ahead: Starting your AI Project
An Attempt for AI Classification

**COGNITIVE DOMAIN**

**SENSE & PERCEIVE**
recognize objects and words
#Machine Perception

**CONTROL & ACT**
control robots, drive cars or fly drones
#Intelligent Robots

**COMMUNICATE**
understand, and analyze natural language
#Natural Language Processing

**PLAN**
draw conclusions from facts and plan actions
#Advanced Process Automation

**REASON**
understand relationships and causality
#Knowledge Representation

**LEARN**
acquire new knowledge from experience
#Machine Learning
#Deep Learning
**HR Analytics Techniques**

3 Domains of AI that enable HR analytics:

- **Natural Language Processing**
  - Text Analytics
    - Scan and analyze the content of emails and CVs
  - Predictive Analytics
    - Predict talent needs

- **Sentiment Analysis**
  - Understand employees' opinion
  - Determine employees' emotional states

- **Image Analytics**
  - Facial recognition
  - Recognize your brand in pictures shared by your employee on social media

- **Video Analytics**
  - Use of CCTV to detect if an employee is not wearing the right outfit or safety gear
  - Alert abnormal behavior
  - Understand more your employees

- **Machine Learning**
  - Help identify employees' satisfaction
  - Support on digital interviews

- **Advanced Process Automation**
  - Scan and analyze the content of emails and CVs
  - Predict talent needs
Key Ingredients of AI Implementation

AI Challenges are not really about algorithms or technology:

Ingredient 1: Coherent Strategy
Ingredient 2: Operating Model
Ingredient 3: Execution
Ingredient 1: Align your AI Product to Corporate Strategy
Ingredient 2: Define the Operating Model (1/2)

DRIVERS

Corporate Strategy
Stakeholders Challenges
HR Strategy

Business

DEMAND

SOLUTION

IT

IMPLEMENTATION

BUSINESS OUTCOMES

Employee Experience
Organisational change
Revenues

Data-Driven Innovation in HR Functions
Ingredient 2: Define the Operating Model (2/2)

Data-Driven Innovation in HR Functions

Business

DRIVERS
- Corporate Strategy
- Stakeholders Challenges
- HR Strategy

PEOPLE

ETHICS & LEGAL

PROCESS

IT

AI Product 1

AI Product 2

AI Product 3

AI Product 4

DATA ASSETS

TECHNOLOGY

BUSINESS OUTCOMES
- Employee Experience
- Organisational change
- Revenues

Employee Experience
Organisational change
Revenues

24
Ingredient 3: Execution – Set up of an AI Project

**Ways of Working**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope definition</td>
<td>15%</td>
</tr>
<tr>
<td>Data processing &amp; cleaning</td>
<td>20%</td>
</tr>
<tr>
<td>Communication &amp; hand-over</td>
<td>25%</td>
</tr>
<tr>
<td>Data identification</td>
<td>10%</td>
</tr>
<tr>
<td>Model creation</td>
<td>20%</td>
</tr>
<tr>
<td>Prioritization</td>
<td></td>
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<tr>
<td>Staffing allocation</td>
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**Timeline breakdown (up to 3 months)**

- **Scope definition**
  - Identify business needs and expected project outcome (timeline, ROI...)
- **Data processing & cleaning**
  - Understand, analyze, and transform
- **Communication & hand-over**
  - Create apps, dashboards, APIs...

**Staffing allocation**

- **HR Specialist**
  - Define needs and use final deliverables (reporting, dashboards...)
- **Business Analyst**
  - Identify and analyze data sets with the user and test the suggested solution
- **UI UX Designer**
  - Develop dashboards and user interfaces
- **Data Steward**
  - Manage and supervise data quality
- **Data Scientist**
  - Thoroughly analyze challenges, develop complex models and supervise every project stage from the data identification to the hand-over
- **Data Engineer**
  - Refine data lake architecture and functionalities; test new features

**25% Business / 75% Data**
Ingredient 3: Execution – AI Project Implementation

1. Define KPIs and metrics
2. Formulate Requirements
3. Check the market
4. Consider building a tool
5. Extract transform and load data set
6. Clean data set
7. Prepare additional data collection
8. Train & deploy the model

HR Specialist:
1. Define KPIs and metrics
2. Formulate Requirements
3. Check the market
4. Consider building a tool

Data Steward Data engineer:
5. Extract transform and load data set
6. Clean data set

Data Steward Data scientist:
6. Prepare additional data collection
7. Train & deploy the model

Executive & HR Specialist:
3. Evaluate commercial tools
4. Decide in the need to build
5. Build the model
6. Implement a platform's frontend
7. Set up reporting
8. Implement onboarding tactics

Executive & HR Specialist:
7. Evaluate commercial tools
8. Decide in the need to build

IT Department:
8. Develop training strategy

Gather the team
Build or buy
Define data sources
Set up data infrastructure
Select metrics and KPIs
Build the model
Develop UI
Train the users
Ingredient 3: Execution - Ethics

GOVERNANCE

Definition of Ethical Principles

The governance must establish a corporate framework allowing operational staff to benefit from guidelines related to the ethics of AI. The governance participates in arbitration, particularly in the event of a conflict between profitability and ethics.

Application of Ethical Principles

Operational staff must implement ethical principles in the construction of systems, but also in their use as well as in the event of development.
Roadblocks to your AI Project

1. Execute without Strategy
   - Trust my “gut feeling”

2. Information Silos
   - FOMO

3. Bad - unclean Data
   - DATA PROCESSING
   - “Have more strategy”

4. Talent Shortage
   - MODEL CREATION
   - Business vs IT

5. Lack of Ethics
   - Consumer data rights
   - Lack of Resources

DATA PROCESSING
PRIORITIZATION
SCOPE DEFINITION
COMMUNICATION
Artificial Intelligence can be part of the employee life cycle and occur in different stages of the life cycle

Attract & recruit
Hire & onboard
Promotion & sustain
Support & Develop
Leave
Engage & Perform

Ai can be found in nearly every stage of the employee life cycle, contributing to a better engagement and development and influencing retention
Case Study 1: CV Matching Bot

Business Problem
Identify the right profile to hire and help the customer find the best job ads.

Methodology
With convolutional neural networks, it is now possible and common to design algorithm capable of automatically interpreting text extracted from a document.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Model</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVs/Resume</td>
<td>• Seniority detection</td>
<td>ads tailored to the resume</td>
</tr>
<tr>
<td></td>
<td>• Sector of activity detection</td>
<td></td>
</tr>
</tbody>
</table>

Outcomes
A solution which returns job ads tailored to candidates who upload their CV online and improve the user experience on the recruiting side while promoting the less popular ads.
LIVE DEMO

CV MATCHING BOT
Case Study 2: Talents Retention Bot

Business Problem
As the global trend toward travel and distant communication continues, businesses are finding themselves competing with a greater number of potential employers. Talented employees are pursued and leadership is forced to make decisions that will effect if these employees stick around.

Methodology

Data Source

- Data from HRIS

Model

- Finding importance of variables over the resignation
- Prediction of resignation

Results

Interface presenting the importance of variables and the risk of resignation per employee

Outcomes
Determine why employees are resigning and identify risky profiles and retain talents by identifying the causes of departure while searching for profiles with a high probability of resignation.
4. Setting Up an AI CoE
What is a AI Centre of Excellence?

Data-Driven Innovation in HR Functions

Business Led Analytics
- Direct support to the business
- Analytics performed by the closest to the business issues
- Lack of skills
- Lack of analytic perspective

HRIS-Led Analytics
- Leveraging existing HR data
- Encourages data processes
- Far from the business issues
- Lack of skills from HRIS analysts
- Requires training investment

AI-Led Analytics
- Clear accountability of HR analytic
- Dedicated resources to analysis
- Greatest expertise
- Require HR restructuring
- Greatest needs in resources

HRIS Leadership
- HRIS Analyst
- HRIS Analyst
- HRIS Analyst

HRIS Leadership
- HR Analyst
- HR Analyst

HR Analytics Leadership
- HR Analyst
- HR Analyst

HR Leadership
- Business Partner
- Business Partner
- Business Partner

Business Partner

SIAPARTNERS confidential
Cycle in which the CoE works
Types of Centres Of Excellence

Centralized
- Efficiency
- Faster to implement
- Straightforward accountability

De-centralized
- Flexibility
- Cross BU Silos

Hybrid
- Flexibility
- BU Acceptance
- Drive standards

- Complexity
- Inefficiency
Reasons why CoE has benefits for any organization

Company wide AI adoption strategy – 1
Prioritization and business need analysis – 2
AI teams Governance – 3

1. PROVIDE STRUCTURE

Knowledge sharing – 1
Regular AI coaching – 2

3. EFFECTIVE SOLUTIONS

1 – AI Business use cases
2 – Optimum AI outcomes
3 – Reuse of Data

2. BUILDING CAPABILITIES
Characteristics of Successful CoE’s

1. Adequate Talent: Responsibility to those with the appropriate expertise
2. Strong Business Alignment (business first, HR secondary)
3. Solid HR Partnership
4. HR Leaders Use and promote HR analytics
5. Proactive Development of the Capability
6. Adequate Technology: Allows the team to put their effort into the analysis (not the manipulation of data)
AI CoE Set Up & Technical Framework

SET UP

SELECT A STRUCTURAL MODEL
DEFINE INITIAL ROLES AND RESPONSABILITIES
DEFINE KNOWLEDGE GOVERNANCE APPROACH
DEFINE LEARNING & DEVELOPMENT PLAN

FRAMEWORK

DEFINE DATA SOURCES
SELECT THE TOOLS
DEFINE THE GOVERNANCE STRUCTURE
SPECIFY KEY ROLES
Key Steps for successful implementation

01. Create Vision for AI in the company

02. Determine the appropriate level of ambition

03. Organizational Structures and Processes

04. Acquiring and building Talent

05. Develop and maintain a network of AI champions

06. Create a target data architecture

07. Identify business-driver use-cases

08. Manage external innovation

09. Protect Ethics
However, there are major challenges to overcome

Teamwork
- Artificial Intelligence; Machine Learning, Data Science and programming. All people need to work together
- Recruiting training
  - To establish qualified team, recruitment and building new capabilities and keep up with new innovations is essential.
- Re-skill existing employees
  - To achieve critical mass you, redeploy and re-skill current openminded team members

Data Quality
- Identify data types; location meaning; origin & structure

Data Structure
- Strict and effective data and protection

Data Science procedures
- Clearly defined approach for data analyzation and processing

Governance
- Correct governance to be implemented to ensure effective data use and especially reuse of data
The Journey to Build an AI Centre of Excellence

**Plan**
- **4 – 8 weeks**
  - **COE Criteria**
    - Vision Alignment
    - Strong and sustainable business demand
    - IT capabilities
  - **Create the Core Team**
  - **Assess Current State**
  - **Create COE Charter**
    - Define CoE Vision, mission, goals and objectives
    - Evaluate current processes and tools

**Establish**
- **2 – 4 weeks**
  - **Establish COE Roadmap to Implementation**
    - **Establish CoE model set up**
  - **Finalize Technical Framework**
    - Harvest knowledge from past project
    - Standardize processes and tools

**Operate**
- **6 months - 1 year**
  - **Optimize**
    - **Optimize**
      - Optimize cost
      - Undertake benchmarking
      - Continue BPI
  - **Stabilize COE**
    - **Stabilize**
      - Optimize cost
  - **Initiate**
    - **Initiate**
      - Solution development activities
      - Competency building

**Optimize**
- **Ongoing**
  - **Standardize processes, tools & KM repository**
  - **Standardize**
    - Processes, tools & KM repository
5. Discussion Forum
About which topic would you like to know more?
THANKS FOR YOUR TIME

FEEL FREE TO CONTACT US IF YOU HAVE MORE QUESTIONS

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