Business Operations Forum

Does this Big Data make me look fat?

etnetera activate

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Web Analytics Heavy Lifter

- **My experience**

  - numerous advanced implementations of Google Analytics

  - couple of larger implementations of Adobe Marketing Cloud

  - Split Testing and User Experience

  - Digital Marketing

- **Recent proud father**

Key Takeaways
What I want you to remember

- **How to launch a Data-driven Project**

- **How to set up a necessary conventions**

  – ...for Campaign Tagging

  – ...for the whole project

- **How to achieve a consensus in a group discussion**

Concept of Big Data

Scary aspects of Big Data
from the analysts point of view

Volume	Variety	Velocity
• history • frequency • data points • globalization	• many sources • characteristics • constant change	• near real-time • organizational issues

*) Huge amount of messy data is coming at us every second.

Don't worry
digital is easier in every aspect

Volume	Variety	Velocity
• no need to re-platform • easier cleaning • identify useless data faster	• standardization • industry best practices • non-relational databases	• tools are ready • can focus on organizational obstacles
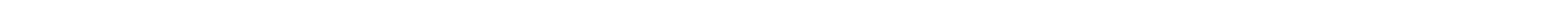
We have to be positive

what do we get from these phenomenons

Volume	Variety	Velocity
• statistical confidence • opportunities to experiment	• no boring status quo • we can always improve	• live one-one conversation • better experience for our users
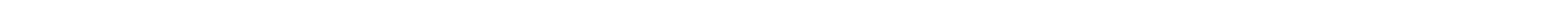
Let's get to work

Road plan of the Big Data project

1. **Define objectives and KPIs**

2. **Suggest the following data-driven activities**

3. **Describe the key conventions**

4. **Map the measured applications & activities**

5. **Identify the stakeholders**

6. **Propose the necessary processes**

7. **Pick the right solutions**

8. **Implement & document everything**

1. Define objectives and KPIs

Objectives (KPIs)

▶ **What actions do we call "conversions"**

– Purchases, Registrations, Subscriptions, Leads, Product Views, Shopping Cart, Shares, Likes, etc.

▶ **How complex are our KPIs?**

– Conversions > Conversion Rate

– Cost per Visit > Cost per Lead > Revenue > Margin > Lifetime Value

▶ **KPI dashboard**

– the smaller the better
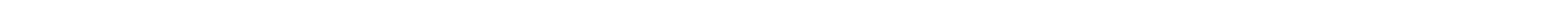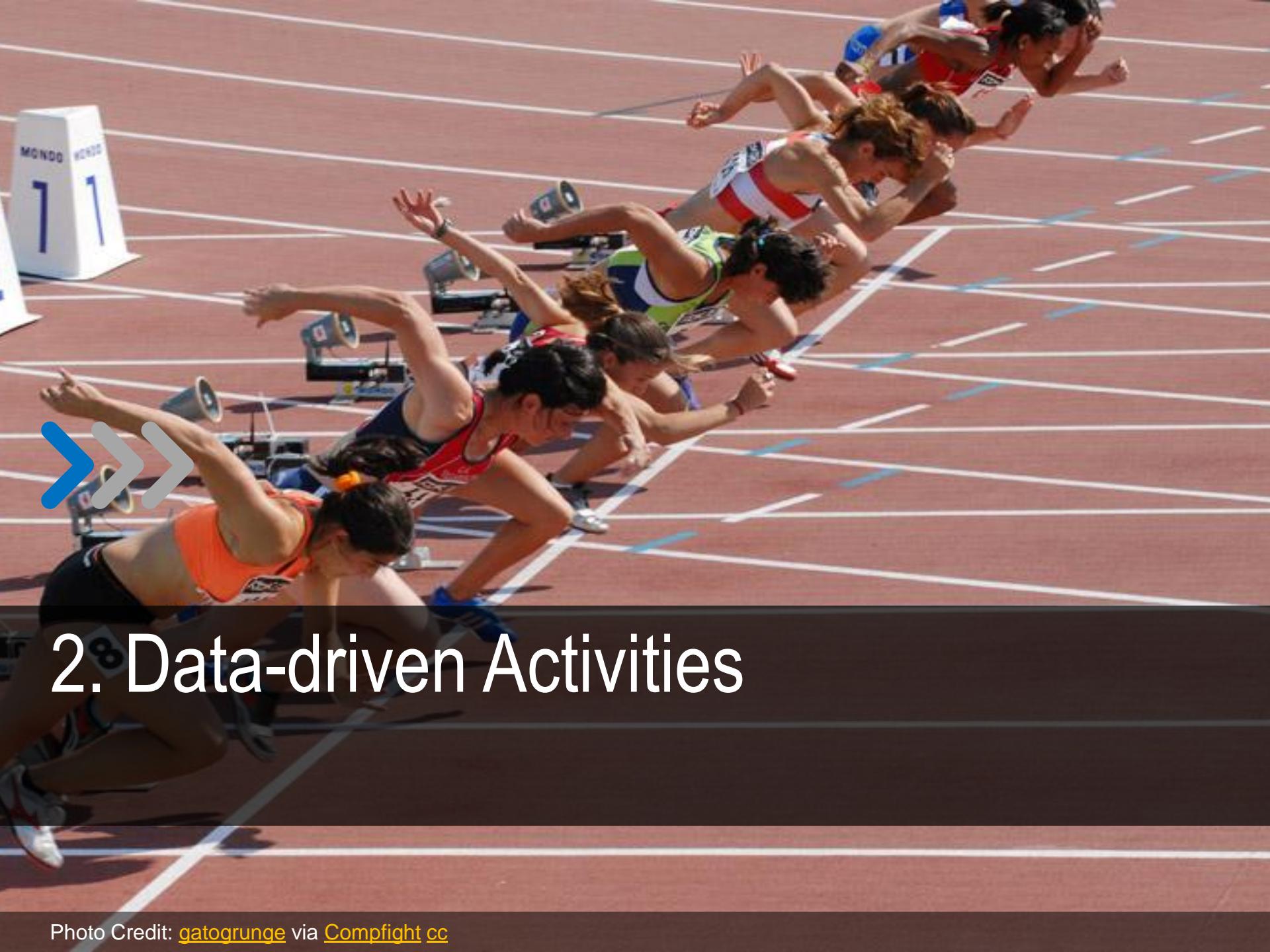
2. Data-driven Activities

What options do we have

- **Research**

- **Reporting and Forecasting**

- **Recommendations**

- **Split testing**

- **Personalization (Behavioral Targeting)**

    Personalized Web Content

    Personalized E-mailing

    Personalized Advertising

    Support for Direct Activities (Online Chats,...)

Research

▶ **When you need data to**

– design the right products & services

– come up with the user interface ideas

– focus on improving features that visitors use

– generate ideas for your campaigns
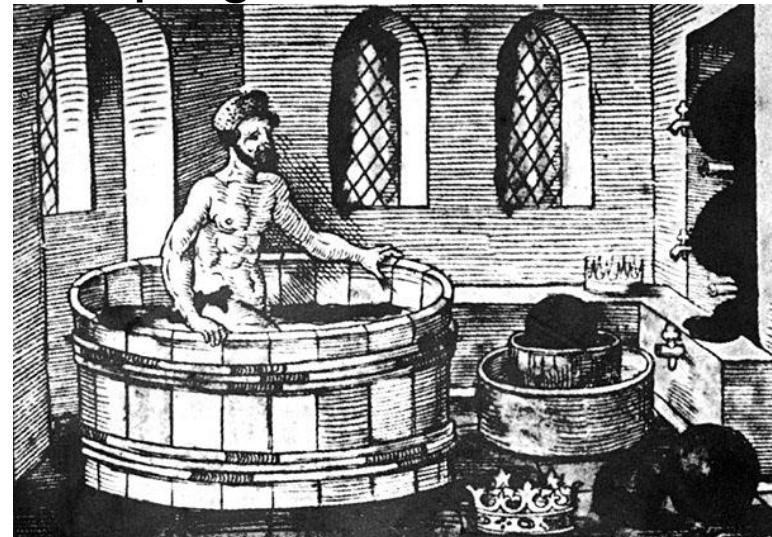
Reporting and Forecasting

▶ **When you need to**

– compare your performance over time

– be notified in case of negative events occurrence

– plan resources, campaigns and projects

– optimize performance and budgets
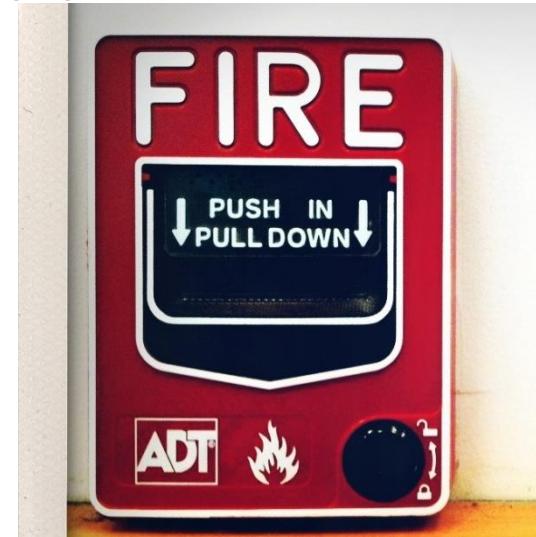
Recommendations

▶ **When you want to**

– up-sell and cross-sell automatically (when you cannot customize the product bundles manually)

– increase loyalty

Split testing

▶ **When you need to**

– validate your assumptions

– decide internal disputes

– iteratively improve user interface
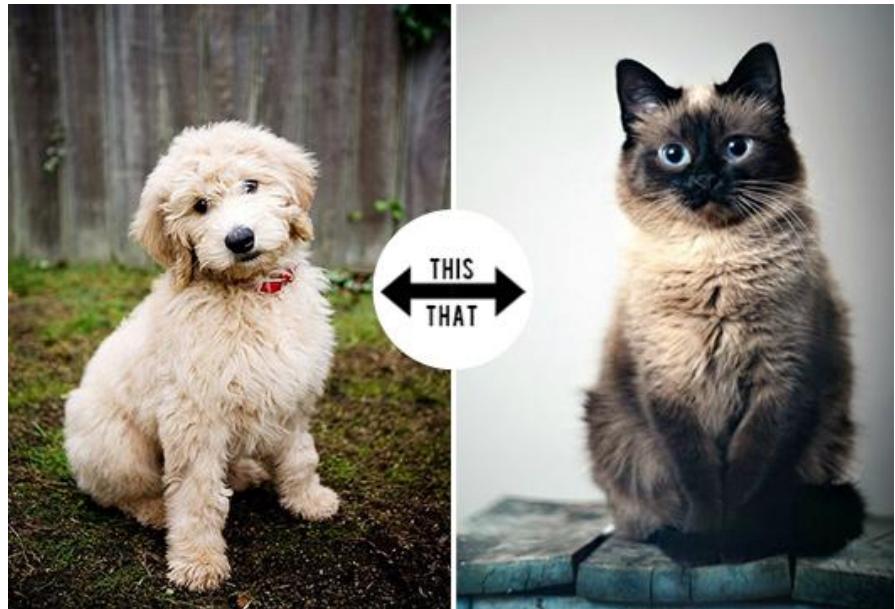
Personalization

▶ **When you desire to**

– increase overall customer satisfaction

– increase loyalty and trust
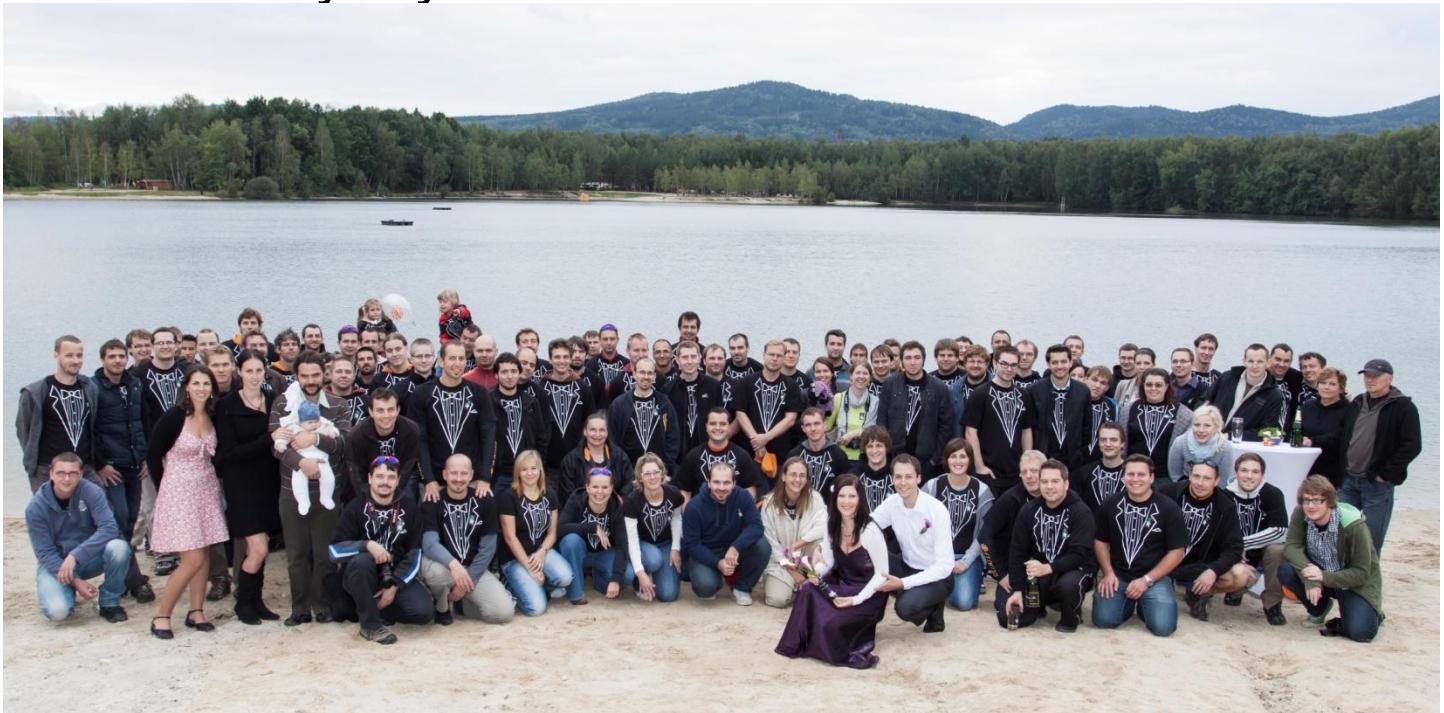
3. Describe the key conventions

These are the most common ones

- **What are our objectives?**

- **How do we identify a single user?**

- **What are the key segments?**

- **How do we identify from where the user comes from?**

  – Campaigns, E-mailing, Search, Link (Referral), Other

- **How do we identify objects he interacts with?**

  – Pages, Elements, Forms, Products,...

User ID

▶ **Available across all the apps**

– both Web and Apps (Desktop + Mobile)

– always (cookie?)

▶ **Should not be Personally Identifiable Information (PII)$^{*)}$**

– mostly hash of the primary e-mail

– better is a more persistent ID

– e-mail may change over time

*) Because mostly the analytical tools are in the cloud – possible data compromise

Key segments

▶ Characteristics of users

- demographic profile
    - i.e. from fields of registration form
- shopping behavior (Customer, Repeat customer)
- consumed content (Products, Searches, etc.)
- features used (watchdogs, favorites, etc)
- campaign touch points
    - which campaigns does he interacted with?
- locality (mobile apps in-store)

Digital channels

▶ **Which activities do we use to drive traffic to the websites**

- PPC (Search, Context, Remarketing)
- Display (CPM, RTB, Remarketing)
- E-mail (Campaign Vs. Transactional)
- Affiliate? (Networks, Partners)
- Social? (Ads Vs. "Organic Buzz")
- InApp advertisements
- Other...

Campaign tags conventions

▶ **Single Source of Truth**

– shared MS Excel or Google Spreadsheets[*]

– control mechanisms

▶ **Level of detail**

– Channel > Publisher > Website > Placement

– Campaign > Product > Offer

– Pricing model (ppc, cpm, rtb,...)

– Variant (experiments)

– Agencies, Partners,etc.

[*] https://docs.google.com/spreadsheet/ccc?key=0ArkbgYVOzE3QdHo0Ql96ZUZOMVdNQk9uUnZVSFNNdUE&usp=sharing

Pages / Screens, Sections, etc.

▶ **Why URLs are a bad idea**

 – not very readable (for non-technical people)

 – same page may have many URLs

   – URL query parameters, split testing, etc.

 – some pages may have the same URL

   – form – viewed Vs. sent with errors Vs. sent successfully

▶ **Why meta-titles are a bad idea**

 – they serve different purpose (branding, SEO)

 – they might change

Consistent product IDs

▶ **Cover the whole customer's life-cycle**

– Awareness

– Intent

– Research

– Opinion

– Consideration

– Purchase

– **Loyalty!**

▶ **Identify products and categories**

– through the whole funnel

4. Map the Data Sources

What data are we talking about?

- Mandatory – bookkeeping
- By-product – collected automatically by the tools
- **Useful = data, that we want to have**

Mandatory

Collected on Purpose

By-product
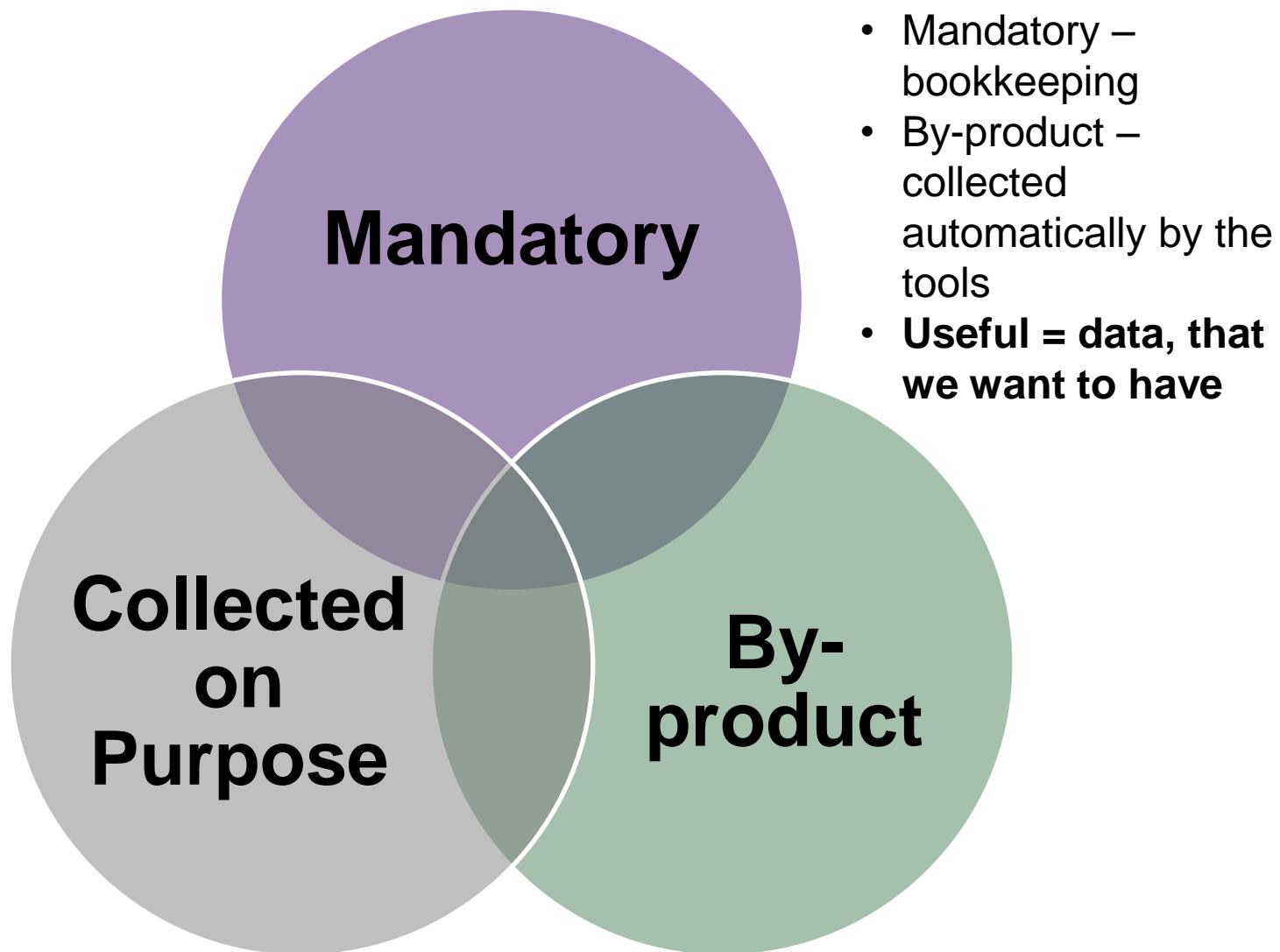
These are the most common ones

- **Websites**
  - Domains & Platforms
- **Other systems**
  - Back Office
  - Desktop Apps
  - Mobile Apps (iOS, Android, Win8)
  - External Tools
    PPC & Display Networks, E-mail Marketing, Social Networks

Web platforms – IT gibberish

▶ **Most common data points:**

– Visitors, Sessions, Pages, Events, (Transactions)

▶ **Every platform differs in its capabilities to use typical shortcuts**

– Pages => URLs, Page Titles

– often this is contra-productive[*]

▶ **Mostly overlooked**

– Products, Customer-related data

– => **Business Related Data[**]**

[*] URLs and Titles serve a different purpose – most importantly they can change due to understandable requirements
[**] You need to take control over the measured data points!

Other Systems

▶ **Online Vs. Offline**

– can we reach some data?

▶ **Data flow**

– some data may end in the back office

▶ **Key questions:**

– Can we identify the customer?

– What signals could be useful?

– Can the measurement be done technically?[*]

*) You can't measure interaction on your Facebook Page's wall, but you can measure a FB application

5. Identify the stakeholders

What do need to achieve here

- **What roles and responsibilities do we need on all sides?**
  - Our company
  - Agencies
    - Analytics
    - Consulting
    - Creative
    - Media
    - Development

...in Our Company

▶ **Report Consumers, Exports**
- what data do they need
- in what form (web interface – reports, dashboards; e-mails; API exports)

▶ **Marketing specialist(s)**
- maintain campaign tags, products,...

▶ **Internal development team**
- develops/manages measurement protocol
  - according to manuals from Analytics Agency
  - testing, validation, deployment

# ...in Analytics Agency

▶ **Solution Architect**

– proposes solution design

– configures the tools

– consults the best practices

– proposes projects

▶ **Measurement code developer**

– delivers tested codes

...in Other Agencies

▶ **Who is able to manage the execution?**

– Tech agencies – Measurement codes

– Creative/Media agencies – Campaign tags

▶ **Single point of contact**

– Project management experience preferred

▶ **...or communication through us**

– more complicated, more controlled

6. Relevant processes description

What we need to understand

- **How does the deployment cycle work?**

  - Who does what to guarantee a successful update of measurement code?

- **How do we maintain a consistent Campaign identification?**

- **How do we keep the data flowing to the right people, so they can use them to make decisions?**

Deployment

▶ **Release cycle on different platforms**

– coding style depends on the platform

– Tag Manager

– may decrease dependency on IT

– Server-side

– the release cycle may slow us down a bit

▶ **Key Questions:**

– How do we guarantee that the measurement is reliable?

– How do we adapt to the change?
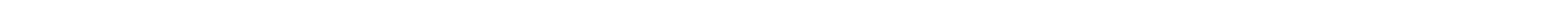
Campaign tag maintenance

▶ **Key Questions:**

– Who is the decision maker when new campaign is launched?

– Do we have clear rules to create new tags?

– In which formats do we need to deliver campaign specifications?

– How do we adapt, when we need to change the campaign over time?

Reporting requirements

▶ **Constant change**

– How do we keep up with the changes (UI – Forms/Interactive elements, Landing Pages, Features, Products)?

▶ **Iterative improvements**

– comprehensible visualizations

– better KPIs

– better data distribution

– generic rules (automatic measurements)

7. Pick the right solutions

What options do we have

- **Existing Digital Analytics tools**

  – it's library or some port through an insertion API

- **Business Intelligence tool**

  – you have to implement extra layer of abstraction

- **Design your own solution**

  – costs: development, hardware, maintenance

  – limited capabilities (especially in case of future growth)

Features

▶ **Customization options**
- custom dimensions & metrics, attribution models, visualization options, distribution

▶ **Advanced analysis**
- segmentation, anomalies detection,

▶ **Out-of-the box reports**
- geo-IP, demographics, loyalty, technology

▶ **Ease of implementation**
- libraries, APIs, support

▶ **Terms & Conditions**
- data ownership, SLA, support, data sampling
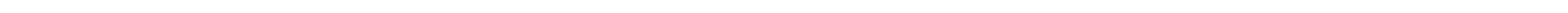
Integrations

▶ **Do the tools you use have ready-made integration with the primary analytics tool?**

▶ **Examples:**

– Google Analytics + AdWords & Doubleclick + Webmaster Tools

– Adobe Marketing Cloud + AdForm + Silverpop + Facebook

Other decisions

▶ **We need to decide which way to go**

– JavaScript + Cookies

– suitable for every Web-based solution

– easier to implement, deploy, maintain

– Tag Manager

– Server-side Tracking

– higher precision

– better standardization

– development costs more
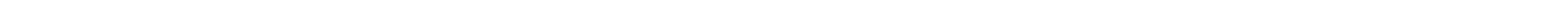
8. Implement & document everything

This step consists of

▶ **Map actions to the Page/Event concept**

▶ **Identify gathered variables**

- Success Events (goals, transactions,...)

- Segments

  - measured Vs. derived

  - i.e. Clients, Visitors with 2 visits,...

- Counters and Pathing

  - i.e. Page, Element, Product, Section,...

▶ **Assemble the required Reports & Dashboards**

The practical part

Today's assignment

▶ **Prepare a data-driven project**

– pick a website of one of the team

▶ **Scenarios of the data-driven activities**

– pick some data-driven activities and apply them to your website

▶ **Key concepts**

– describe the required data & conventions

▶ **Stakeholders**

– describe the roles and their responsibilities
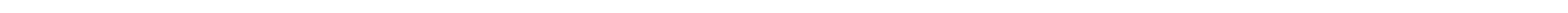
Fully-fledged project

▶ **Analysis**

- Analysis document/website
  - websites and other systems documentation
  - scenarios & key concepts
  - stakeholders & processes
  - links to solution design
- Solution design spreadsheet
- Code examples
  - working proof-of-concept

▶ **Implementation, Testing, Deployment**

▶ **Manuals, Trainings**

Feel free to contact me with any questions.

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