Daintel

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DAINTEL
SHARING EXPERTISE

1. The name Daintel derives from DAta INTELligence
2. Focus on data quality in all parts of the chain
3. Leading Danish supplier of systems for ICUs and Anesthesia, recording up to 1 billion records per bed per year
4. Solutions with very high data quality and many BI functionalities
5. Just delivered a national solution in Iceland
6. New product for generic patient data management: HealthQ

1. Data project initiated by clinicians
2. Includes project manager, supplier, IT consultant, anonymization responsible, statistician or researcher
3. Permissions take time to get
4. 3-9 months later we have data
5. 3-12 months later we know,
   whether the data contained what we hope for,
   or whether we have to do something else
6. Lots of money, time and mental focus spent,
   sometimes in order to get very little value

I got this description from a demotivated consultant from a big company that delivers BI systems:

1. It works like this: A large statistics or BI system is purchased.
2. After many discussions, the system implementation project ends up being a dashboard-creating project, with very few outputs.
3. Then, the organization solves everything related to the parameters in the dashboard.
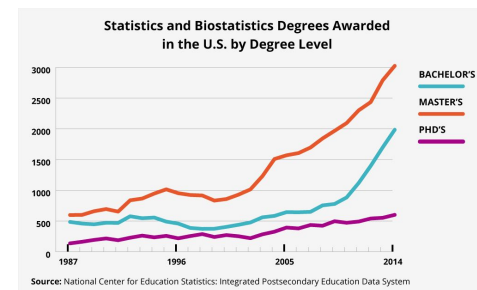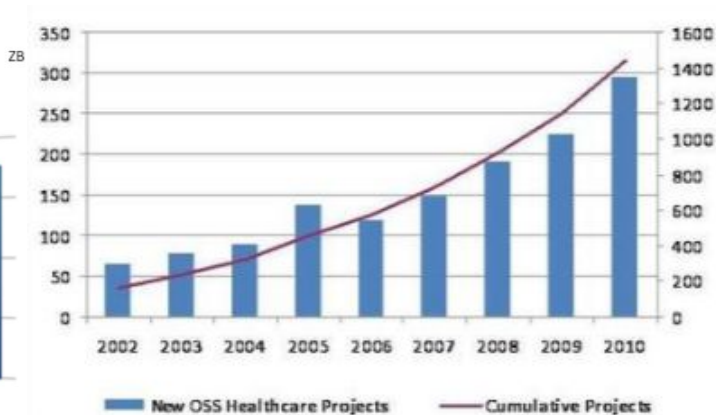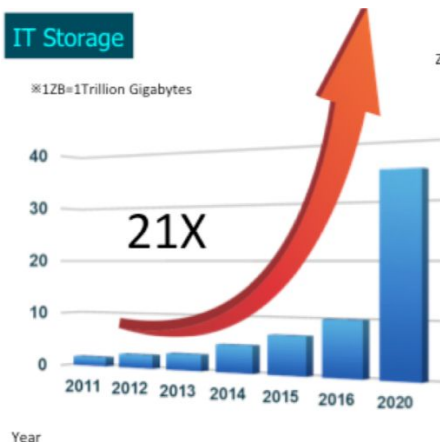4. Afterwards, the dashboard is no longer important.

80-90% of a data project is spent on data management.
Source: DTU Compute, Technical University of Denmark

The current state in most organizations is, that they try to assemble data into one central data warehouse, but:

- Most employees do not have direct access
- Regulatory compliance and workflows are very often not automated
- Data warehouse output is complex and requires analytical specialists
- It is still easier to find a restaurant for tonight than to find your own data

The solution

1. Those that need data, must have access to data
   a. "Information at your fingertips"
   b. "Google" your health care data like you pick tonight's restaurant
2. Automated standard solutions for:
   a. Regulatory requirements
   b. Safety requirements
   c. Data management
3. Better knowledge about:
   a. How to create ideas about data usage
   b. How to convert ideas to results

1. HealthQ:
   a. Full automation of data management
      removes 80%-90% of a typical data project
   b. High performance standard system with regulatory compliance
   c. Sometimes shortens a 12 months data projekt to less than a day
   d. Makes a user of spreadsheets or statistical software (SAS/SPSS/STATA/R) able to create updated weekly reports based on billions of records in 100s of database tables in clinical databases, with a minimum amount of work and without having to understand the clinical database structure.
2. The history:
   a. Developed in cooperation with Markedsmodningsfonden (Danish Market Development Fund)
   b. Runs in Region Syddanmark, Iceland Landspitali and DTU CBS

1. **Clinicians**
   a. Can analyze own patients without external help
   b. Can produce data for management reporting without going through all journals manually.
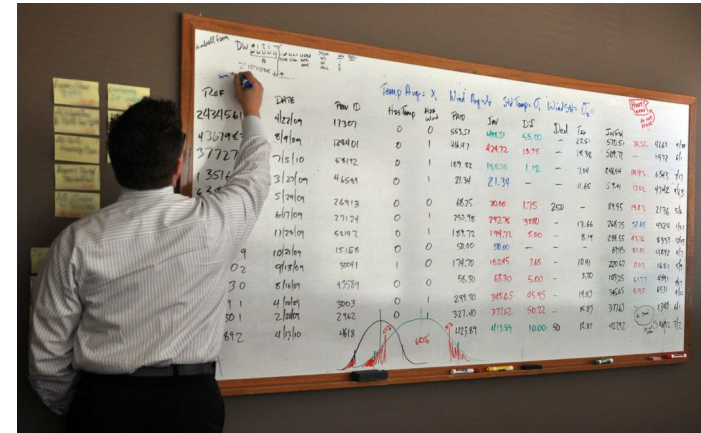2. **Management**
   a. Can easily see what data they have
   b. Can see how resources are used
   c. Can document changes in their department
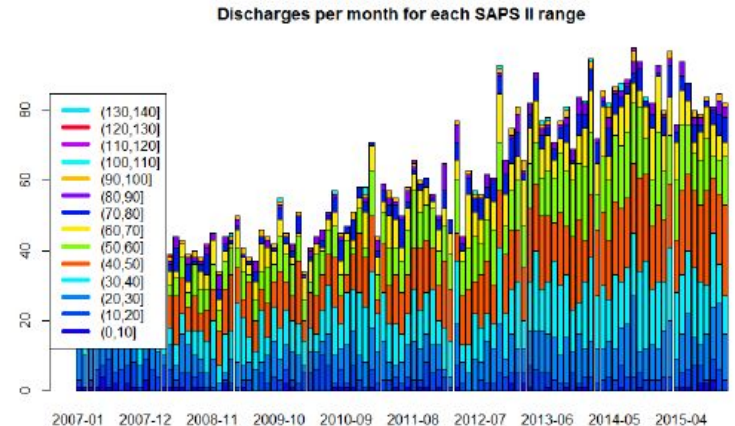   d. Can follow up on department performance and quality

1. Researchers
    a. Uniform access to data from multiple IT systems
    b. Save 80%-90% of the time, previously spent on data management
    c. Less focus on technicalities,
       more focus on data value

1. A department learns they have to reduce costs by 5%,
   but replace it with a deal to increase productivity by 5%, instead
2. A department shows that lack of capacity is very costly.
   The Region decides to increase the department size and budget
   significantly, in order to save money.
3. 0% of patients with some admission diagnoses survived the ICU department.
   Should these patients have been admitted to the ICU?
4. Are all diagnose codes registered as they should?
5. Is medication administrated according to department policies?

1. Number of physiotherapy treatments per week
   a. Must be reported to the Danish healthcare ministry
   b. Normal procedure is to browse through all patient journals
   c. With HealthQ, this statistic could be made and visualized in 20 minutes
2. Is the department productivity gain due to patients being less ill?
3. Is it a good idea to use sedatives that are not compatible with kidney failure?
4. How many of department prescriptions follow department guidelines?

Discharges per month for each SAPS II range

Legend:
- (130,140]
- (120,130]
- (110,120]
- (100,110]
- (90,100]
- (80,90]
- (70,80]
- (60,70]
- (50,60]
- (40,50]
- (30,40]
- (20,30]
- (10,20]
- (0,10]

1. Focus on data output and not data input in new IT systems
2. Systematize and automate data management,
   with regulatory compliance
3. Give employees "information at your fingertips"
4. Use data for making decisions <u>at all levels</u> in your organization