

Victoria Gaunitz | Dataharvest 2023

# Bring structure in unstructured documents *- Without coding*

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# Bring structure in unstructured documents

## SOURCES:

1. People - find and talk to those who have knowledge about the subject.

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1. People - find and talk to those who have knowledge about the subject.
2. Documents - find the relevant papers that may exist.
3. Information - that has not been summarized or processed in any way.

# Bring structure in unstructured documents

## STRUCTURE:

1. When you build a database, YOU are the architect.

**There will be a lot of  
decisions to make!**

# Bring structure in unstructured documents

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2. Think in rows and columns.

# Bring structure in unstructured documents

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3. You decide what each row should contain.

# Bring structure in unstructured documents

## STRUCTURE:

1. When you build a database, you are the architect.
2. Think in rows and columns.
3. You decide what each row should contain.
4. And then you decide what you want to capture in the columns.



## Bring structure in unstructured documents

	A	B	C	D	E	F
1	Id	Namn	Kommun	Favoritmat		
2	1	Sandra	Karlstad	Pasta		
3	2	Victoria	Kalmar	Pizza		
4	3	Anna	Göteborg	Hamburgare		
5	4	Markus	Östersund	Sallad		
6	5	Fredrik	Växjö	Fiskgryta		
7						
8						
9						

# Bring structure in unstructured documents

## STRUCTURE:

1. When you build a database, you are the architect.
2. Think in rows and columns.
3. You decide what each line should contain.
4. And then you decide what you want to capture in the columns.
5. Be aware that it will take time.

# Bring structure in unstructured documents

## STRUCTURE:

1. When you build a database, you are the architect.
2. Think in rows and columns.
3. You decide what each line should contain.
4. And then you decide what you want to capture in the columns.
5. Be aware that it will take time.
6. And that you will make changes.

# Bring structure in unstructured documents

## ARRANGEMENT:

1. What kinds of questions can we answer from these columns?

# Bring structure in unstructured documents

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1. What kinds of questions can we answer from these columns?
2. What anomalies do we need to consider?

# Bring structure in unstructured documents

## ARRANGEMENT:

1. What kinds of questions can we answer from these columns?
2. What anomalies do we need to consider?
3. What is missing?

# Bring structure in unstructured documents

To think about

1. What is the source?

# Bring structure in unstructured documents

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2. What kind of material is it? Verdicts? Incident reports? Decisions?



# Bring structure in unstructured documents

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3. How do you get the material? Paper? Pdf? Is OCR needed?

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5. Which unique identifier should you use to link the material and the data.

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To think about

1. What is the source?
2. What kind of material is it? Verdicts? Incident reports? Decisions?
3. How do you get the material? Paper? Pdf? Is OCR needed?
4. What information is in the material?
5. Which unique identifier should you use to link the material and the data.
6. How to deal with anomalies? If you do it on an ongoing basis, you will see the problems as they arise

# Bring structure in unstructured documents

## **Make a test**

1. Request a smaller amount of material, such as from a few district courts, for a shorter period of time or the five most recent documents.

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# Bring structure in unstructured documents

## Make a test

1. Request a smaller amount of material, such as from a few district courts, for a shorter period of time or the five most recent documents.
2. What do you need from the documents? Which variables are relevant?
3. What type of variable? Yes/no, x, date, free text.

# Bring structure in unstructured documents

One column for each answer

This makes it quick to fill in and (I think) easier to get an overview and make a summary

CTG	Cytotec	Snitt	Dödsfall	Förstföderska	Tidigare snitt	S
x	<input type="checkbox"/>	x	Barnet	x	Nej	S
x			Barnet	x	Nej	S
	x	x		Nej	x	K
				Nej	?	Y
x		x	Barnet	x	Nej	S
				Nej	?	S
	?			Nej	x	U
x		x		Nej	x	V
x		x		x	Nej	S
			Barnet	?	?	S
x				x	Nej	S
x		x	Barnen	Nej	?	S
x	?		Barnet	Nej	x	A
		x		?	?	F
x		x	Barnet	Nej	?	K
				?	?	M
x		x	Barnet	?	?	C
				?	?	F
x			Barnet	x	Nej	D
			Barnet	Nej	?	A
v		v		v	Nej	I



# Bring structure in unstructured documents

## Make a test

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2. What do you need from the documents? Which variables are relevant?
3. What type of variable? Yes/no, x, date, free text.
4. How much information do you need to enter?

# Bring structure in unstructured documents

Longer texts do not need to be entered

- If the free text is an interesting case/case or in some other way special, put an x.
- You can add page number and a comment
- Since you still have the basic material, you can go back and read after you have gone through the documents.
- But sometimes, if there are a short final decision it can make it easier to free text search

Intressant	Sidan	Kommentar
x	5	
?	6	
x	15	
x	7	

# Bring structure in unstructured documents

## Make a test

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2. What do you need from the documents? Which variables are relevant?
3. What type of variable? Yes/no, x, date, free text.
4. How much information do you need to enter?
5. Remember that you still have the material.

# Bring structure in unstructured documents

## Utilize excel/spreadsheet

1. Conditional formatting for date checking of the request

	X	Y	Z
Begärt ut		Ensam	Gemensamt
2021-09-07			x
2021-09-01	x		
2021-08-25	x		
2021-08-22			
2021-08-30			
2021-09-02			x
2021-08-16			
2021-09-01	x		
2021-08-28			

# Bring structure in unstructured documents

## Utilize excel/spreadsheet

1. Conditional formatting for date checking of the request
2. Conditional formatting for checks
  - a) Highest values

## Bring structure in unstructured documents

	A	B	C	D
1	Namn	Personnr	Förvärvsinkomst	
2	Anna Johansson	1933xxxx-xxxx	1 465 100	
3	Bertil Olsson	1955xxxx-xxxx	1 215 200	
4	Carl Carlsson	1950xxxx-xxxx	1 697 000	
5	David Andersson	1955xxxx-xxxx	1 130 100	
6	Erik Magnusson	1955xxxx-xxxx	1 276 900	
7	Fredrik Nilsson	1946xxxx-xxxx	1 317 700	
8	Gunnar Larsson	1956xxxx-xxxx	1 229 700	
9	Hanna Svensson	1948xxxx-xxxx	1 110 700	
10	Ingvar Karlsson	1951xxxx-xxxx	1 001 300	
11	Johan Gustavsson	1942xxxx-xxxx	1 748 200	
12				
13				

# Bring structure in unstructured documents

## Utilize excel/spreadsheet

1. Conditional formatting for date checking of the request
2. Conditional formatting for checks
  - a) Highest values
  - b) Empty cells

## Bring structure in unstructured documents

Dom3	Stämning3	Utredning3	Dom4	Stämning4	Utredning4	Dom5	Stämning5	Utredning5	Antal
									0
T 613-23	x	x	T 46-23	x	x	T 82-22	x	x	15
T 163-23	x								6
T 976- 18	x	x	-	-	-	-	-	-	15
T 1-23		x	T 964-23		x	T 28-23		x	10
T 35-23	x	x	T 18-22	x	x	T 408-23	x	x	15
T 676-23	x	x	-	-	-	-	-	-	15
T 84-23	x	x	T 6-22	x	x	-	-	-	15
T 8-21	x	x	T 0-21	x	x	-	-	-	15
									0
T 892-22	x	x	T 205-22	x	x	T 7398-23	x	x	15
									0



# Bring structure in unstructured documents

## Utilize excel/spreadsheet

1. Conditional formatting for date checking of the request
2. Conditional formatting for checks
  - a) Highest values
  - b) Empty cells
  - c) Duplicates

## Bring structure in unstructured documents

	A	B	C	
1	Namn	Parti		
2	Åsa Lindestam	S		
3	Lotta Johnsson Fornarve	V		
4	Kerstin Lundgren	C		
5	Lars Jilmstad	M		
6	Karin Enström	M		
7	Anders Ygeman	S		
8	Sultan Kayhan	S		
9	Sultan Kayhan	S		
10	Mattias Vepsä	S		
11	Barbro Westerholm	L		
12	Betty Malmberg	M		
13	Mikael Oscarsson	KD		
14	Elsemarie Bjellqvist	S		
15	Jan R. Andersson	M		
16	Anders Åkesson	C		
17	Harald Hjalmarsson	M		

# Bring structure in unstructured documents

## **Utilize excel/spreadsheet**

1. Conditional formatting for date checking of the request
2. Conditional formatting for checks
3. Compilations/Overview

## Bring structure in unstructured documents

	<b>CTG</b>	41
	<b>Cytotec</b>	3
	<b>Snitt</b>	35
	<b>Dödsfall</b>	42
	<b>Barnet</b>	40
0		
1	<b>Förstföderska</b>	88
2	Ja	27
3	Nej	31
4		
5	<b>Tidigare snitt</b>	88
6	Ja	15
7	Nej	30
8		

## Bring structure in unstructured documents

Utilize excel/spreadsheet

1. Conditional formatting for date checking of the request
2. Conditional formatting for checks
3. Compilations/Overview
4. Percentage for motivation

W	X	Y	Z	AA
	543	576	94%	

# Bring structure in unstructured documents

## **IMPORTANT**

1. Remember that you don't remember as much as you think.

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2. Write explanations for what each column contains..

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3. Write down why you make the trade-offs/limitations that you do.



# Bring structure in unstructured documents

## IMPORTANT

1. Remember that you don't remember as much as you think.
2. Write explanations for what each column contains.
3. Write down why you make the trade-offs/limitations that you do.
4. **There is no right solution.**

Time for questions!