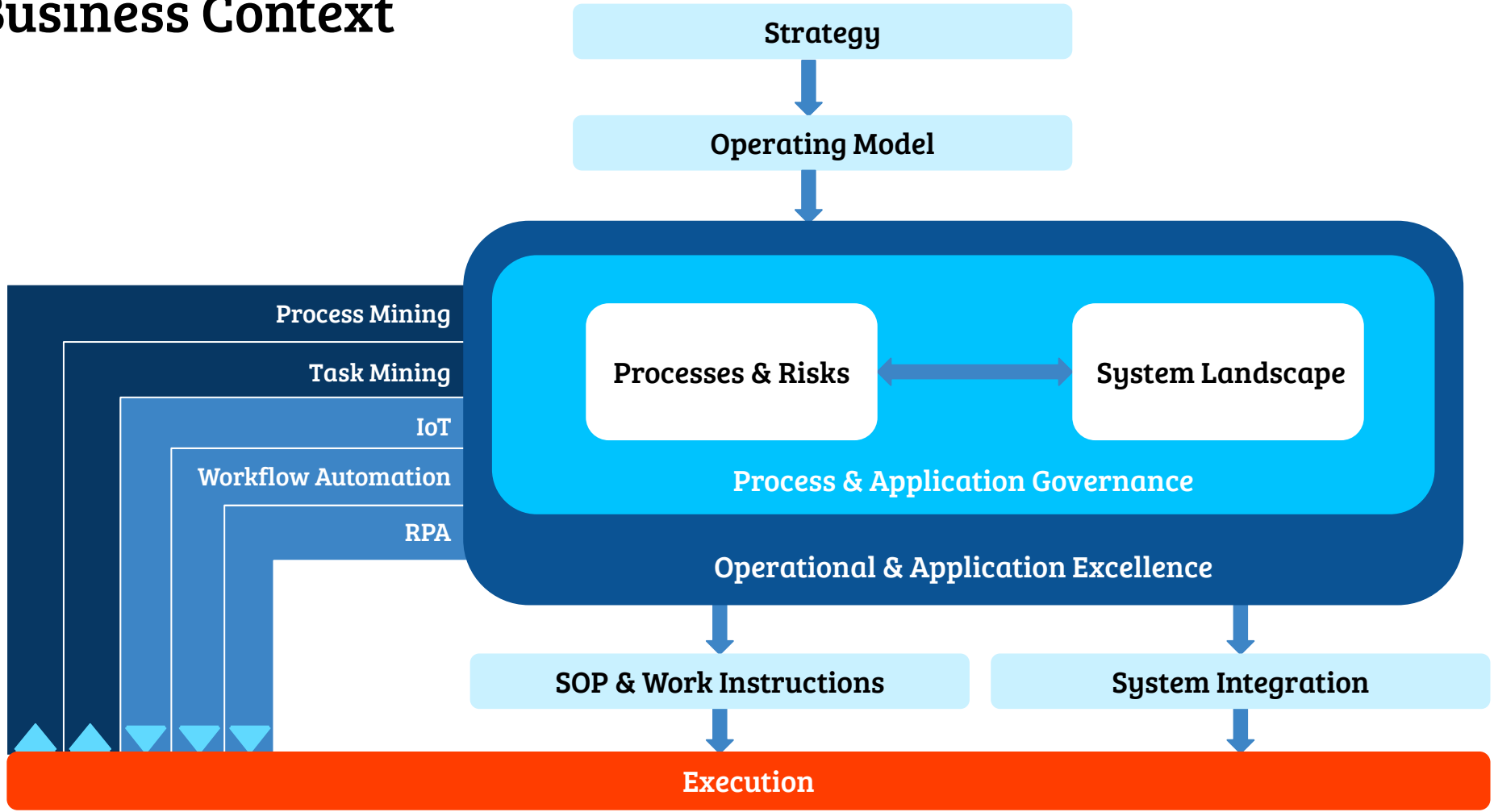
Digital Process Engineering

Witek ten Hove

Image source

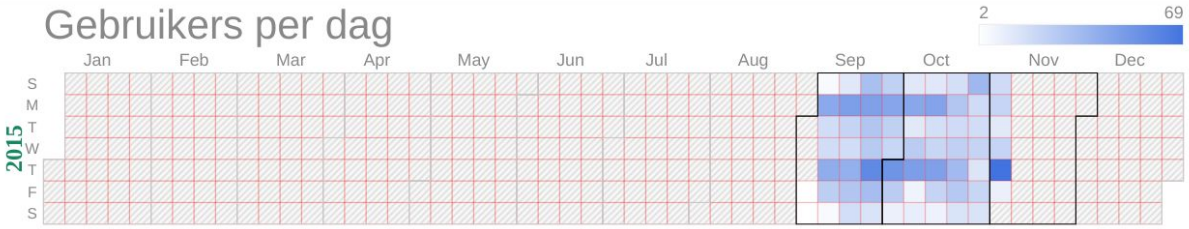
Business Context

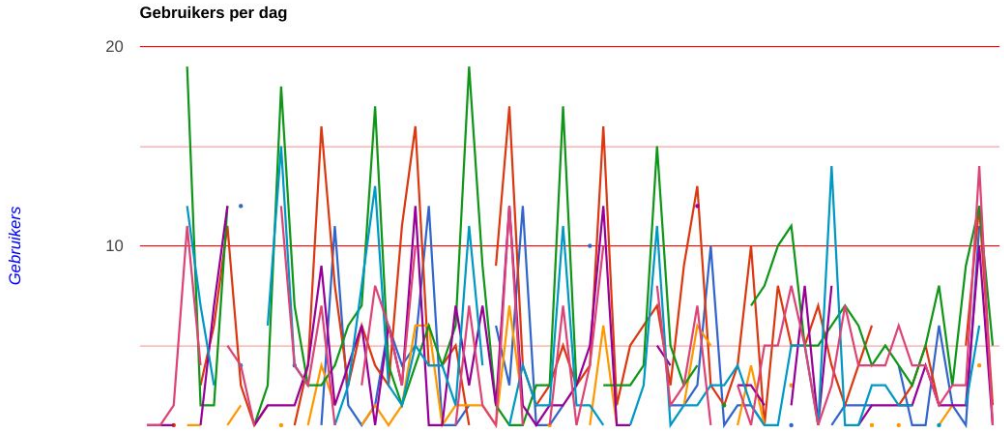


https://tenhove.shinyapps.io/p1y20152/ - Google Chrome

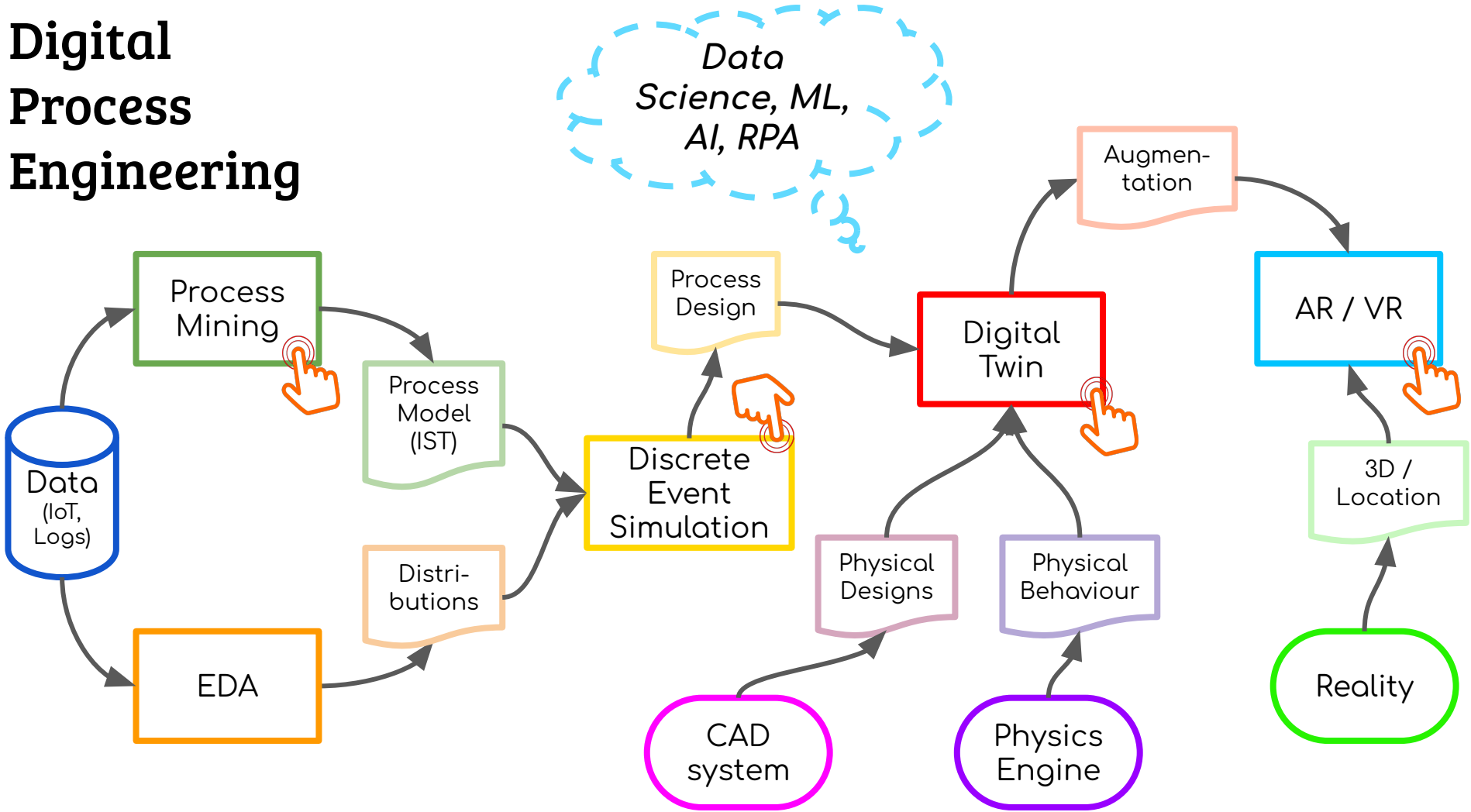
tenhove.shinyapps.io/p1y20152/

Apps | WebDev | Firebase | Science | Tech | Pieterpad | BKMER | Edu | E-mail - Witek.te... | BibiWitek Calend... | Other bookmarks | Reading list





Digital Process Engineering



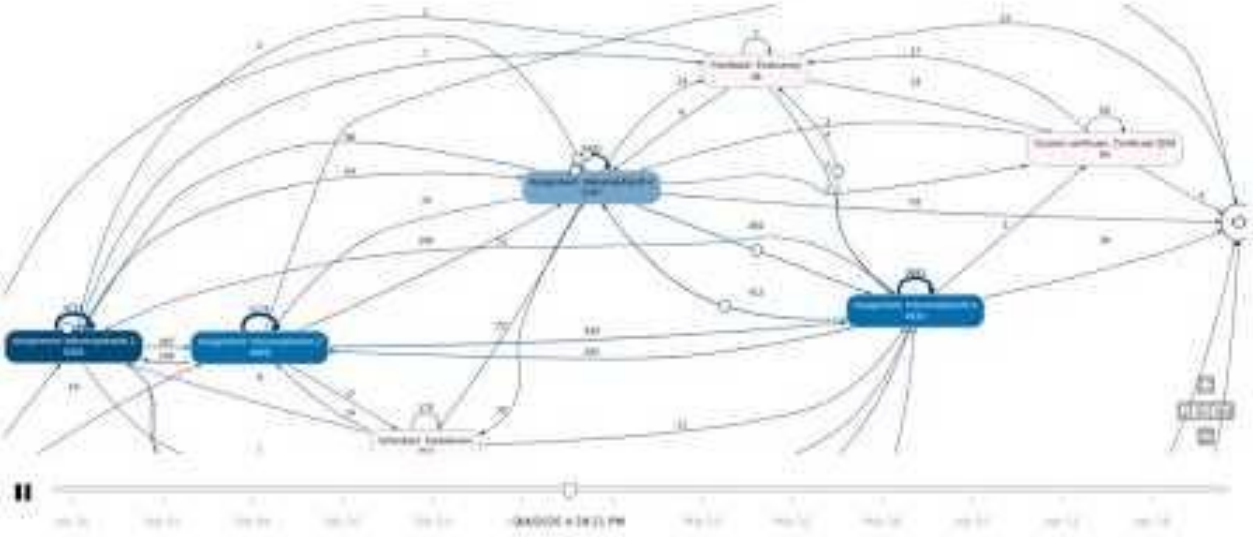
[S2] DPC1 - Planning & Control

[S2] DPC1 - Planning & Control | All groups | All participants | All days

All activities | All actions | All sources | All events | Get these logs

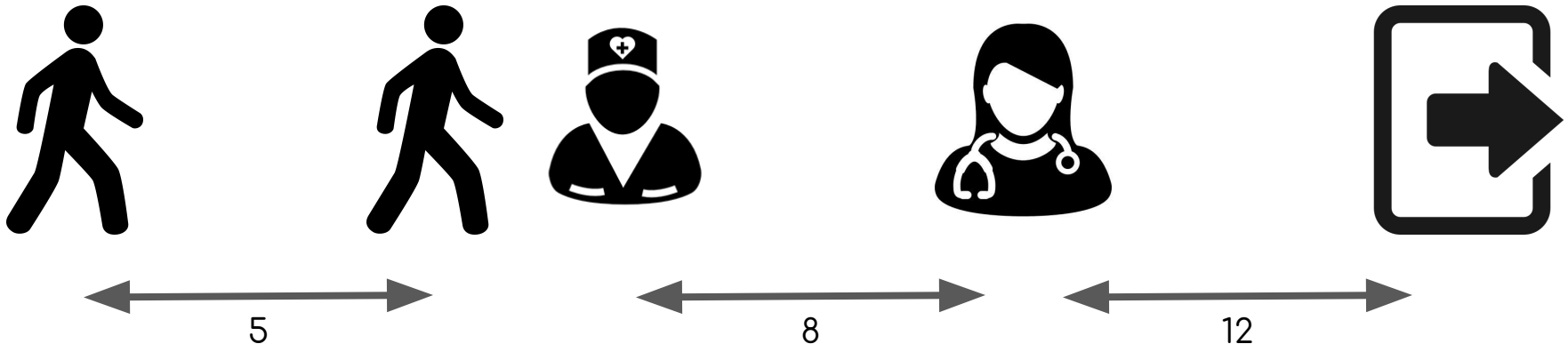
1 2 3 4 5 6 7 8 9 10 ... 890 »

Time	User full name	Affected user	Event context	Component	Event name	Description	Origin	IP address
18 May 2021, 2:36 PM	Witek ten Hove	-	Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '92' viewed the section number '3' of the course with id '358'.	web	82.170.250.240
18 May 2021, 2:36 PM	Witek ten Hove	-	Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '92' viewed the course with id '358'.	web	82.170.250.240
18 May 2021, 2:32 PM	[redacted]		Folder: Groepsopdracht DPCBEC1B.5	Folder	Course module viewed	The user with id '2086' viewed the 'folder' activity with course module id '20683'.	web	[redacted]
18 May 2021, 2:32 PM			Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '2086' viewed the section number '3' of the course with id '358'.	web	
18 May 2021, 2:32 PM			Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '2086' viewed the course with id '358'.	web	
18 May 2021, 2:32 PM			Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '2086' viewed the section number '3' of the course with id '358'.	web	
18 May 2021, 2:32 PM			Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '2086' viewed the section number '1' of the course with id '358'.	web	
18 May 2021, 2:32 PM			Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '2086' viewed the course with id '358'.	web	
18 May 2021, 2:30 PM			Page: 3. Beoordelingscriteria en wijzigingen	Page	Course module viewed	The user with id '2086' viewed the 'page' activity with course module id '20633'.	web	
18 May 2021, 2:29 PM			File: Bijlage 2: Beoordelingsformulier DPCBEC1B.5	File	Course module viewed	The user with id '2086' viewed the 'resource' activity with course module id '22869'.	web	
18 May 2021, 2:29 PM			Course: [S2] DPC1 - Planning & Control	System	Course viewed	The user with id '2086' viewed the section number '1' of the course with id '358'.	web	



Case: Routing hospital

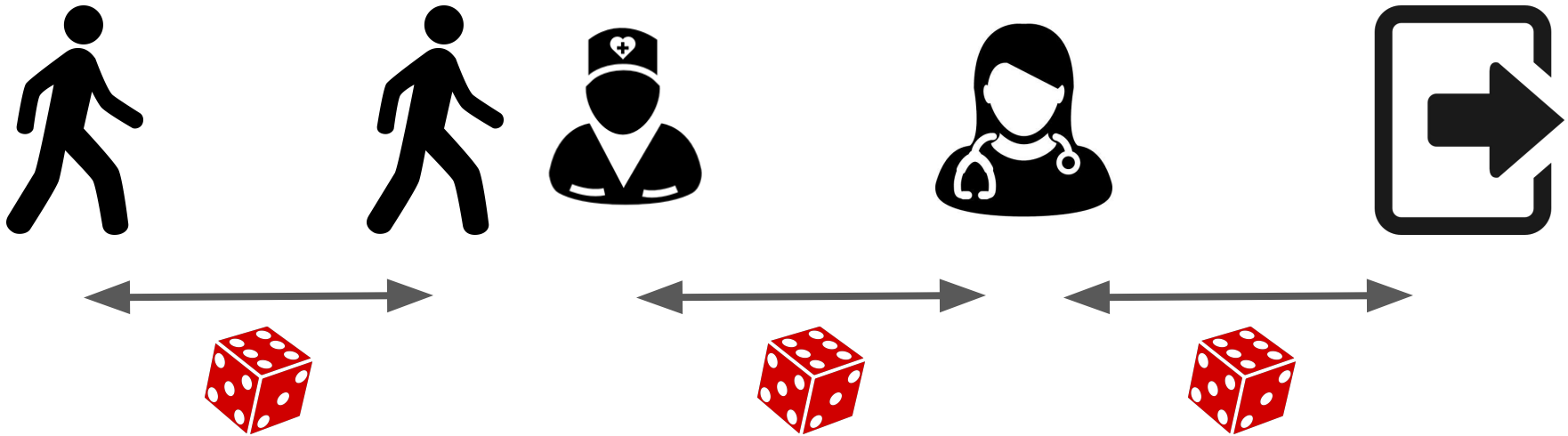
Model



Distribution

Dice	Patients	Nurse	Physician
1	3	4	8
2	3	7	8
3	5	8	10
4	5	8	14
5	7	9	16
6	7	12	16
Average	**5**	**8**	**12**

Simulation

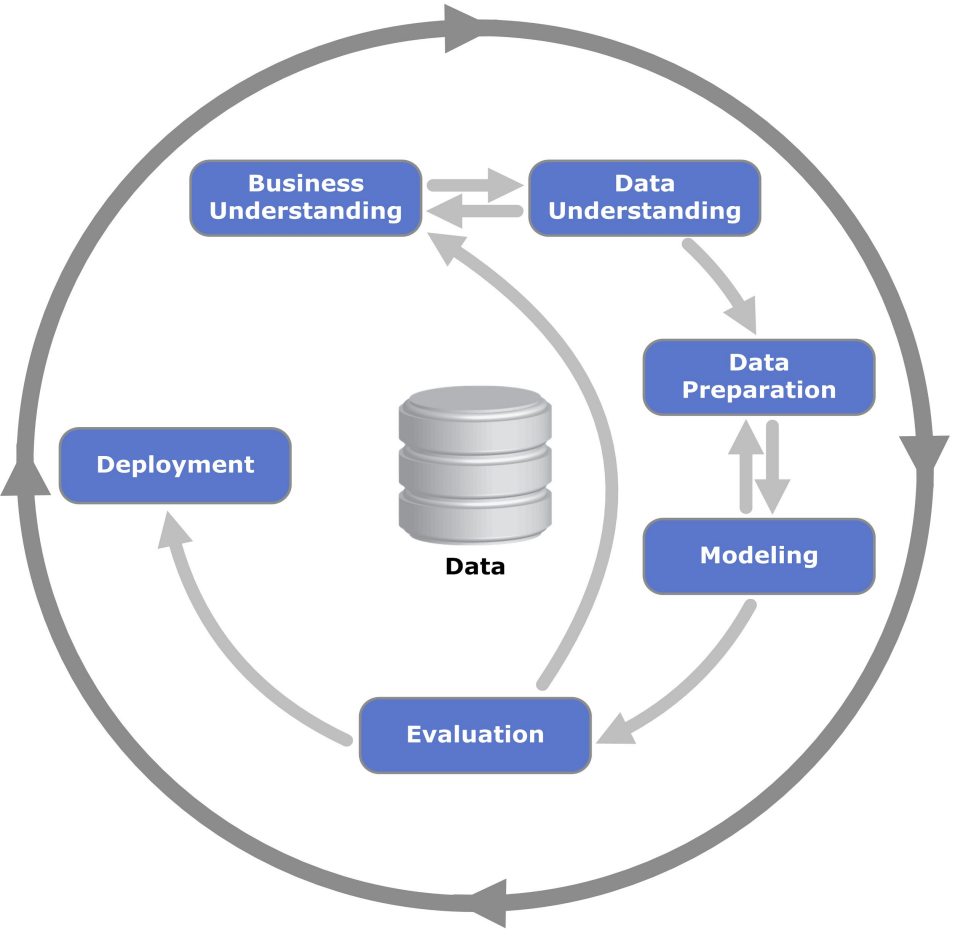
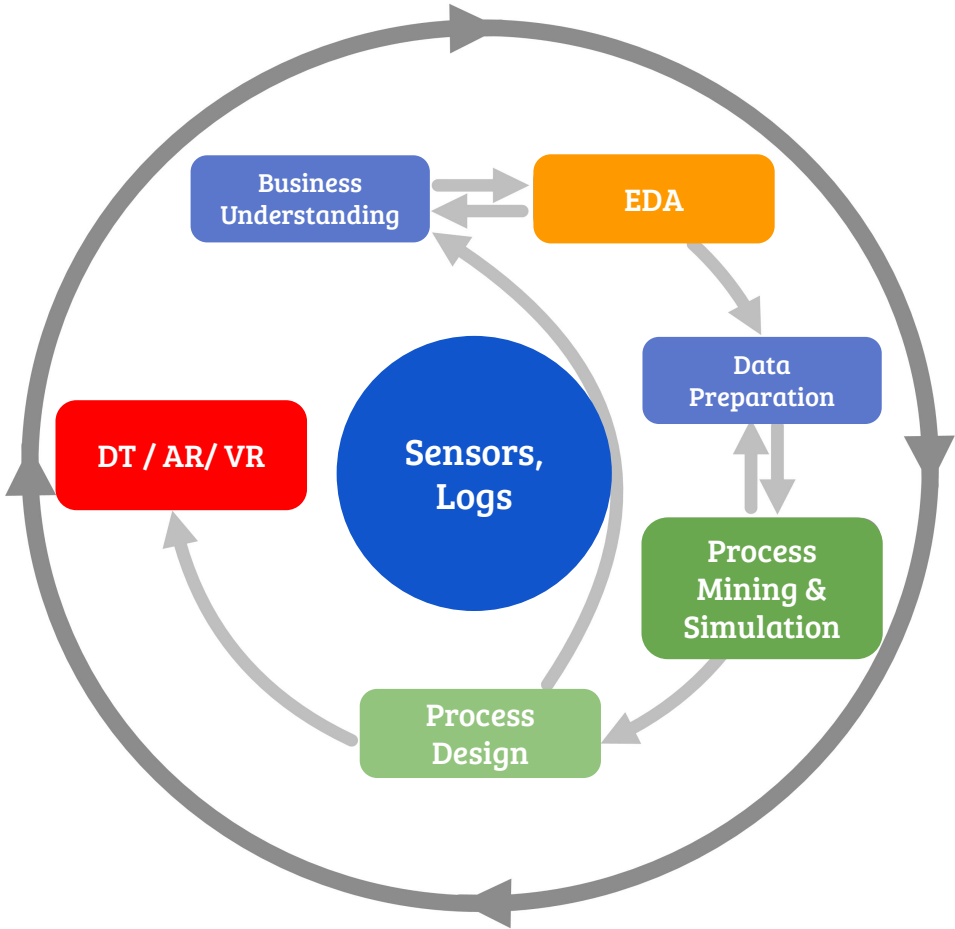


Demo

Simulation with Python: SimPy

Demo 1

Demo 2

Arrival rate
Patients arrival rate, per hour: 8
Staff
Nurses
1 2 3 4 5 6
PAs
1 2 3 4 5 6
Technicians
1 2 3 4 5 6
U-Sound devices
1 2 3 4 5 6
PAs
TRIAGE ROOM 1
TECHNICIANS
U SND
TRIAGE ROOM 2
X-RAY
NURSES
WAITING ROOM
EC ROOM 5
EC ROOM 4
EC ROOM 1
EC ROOM 2
EC ROOM 3
Discrete Event Simulation
Staff utilization
1
0.5
0
Triage R. 0.41
EC R. 0.15
X-Ray 0.14
U. Snd 0.23
Nurses 0.17
PAs 0.15
Techs 0.24
Length of Stay, minutes
1
0.5
0
min
19.8
19.85
19.9

Data Mining >> Digital Process Engineering