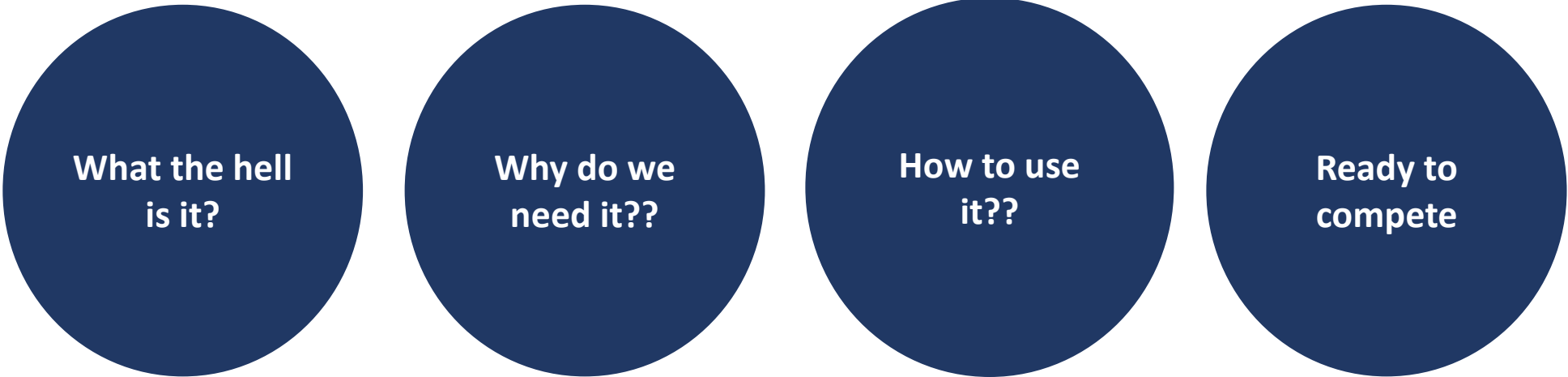


Cohort Analysis

Its just an introduction

Alamsyah Koto Hanza
Jakarta, 5 Agustus 2017

Outline



**What the hell
is it?**

**Why do we
need it??**

**How to use
it??**

**Ready to
compete**

What is it?

is it delicious?



What is it exactly?

co·hort

/ˈkō.hôrt/ 

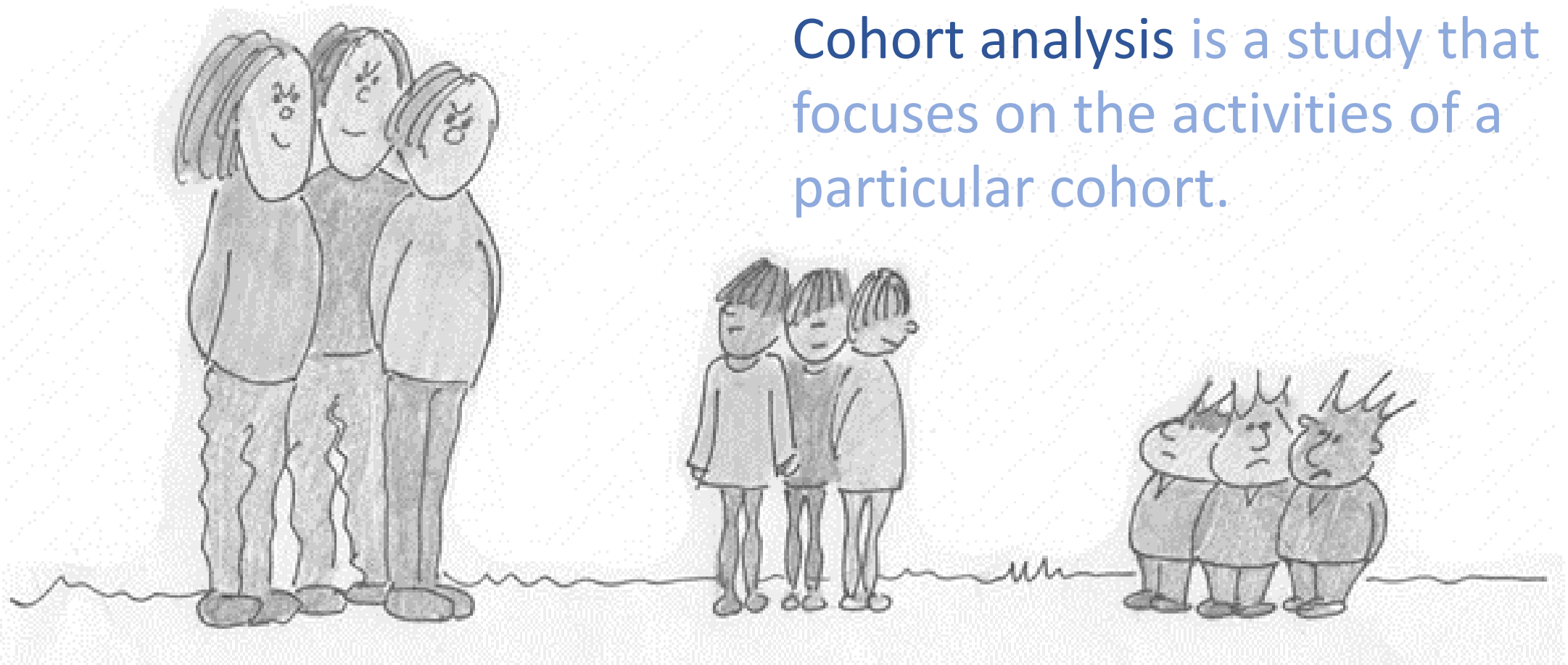
noun

noun: cohort; plural noun: cohorts

1. an ancient Roman military unit, comprising six centuries, equal to one tenth of a legion.
synonyms: unit, force, corps, division, brigade, battalion, regiment, squadron, company, troop, contingent, legion, phalanx
"a Roman army cohort"
2. a group of people banded together or treated as a group.
"a cohort of civil servants patiently drafting legislation"
 - a group of people with a common statistical characteristic.
"the 1940–44 birth cohort of women"
synonyms: group, grouping, category, class, set, division, batch, list, [More](#)
3. *derogatory*
a supporter or companion.
synonyms: colleague, companion, associate, friend
"a party thrown by her departmental cohorts"

What is it exactly?

Cohort analysis is a study that focuses on the activities of a particular cohort.



What is it exactly?

Acquisition cohorts: groups divided based on when they signed up for your app

Behavioral cohorts: groups divided based on their behaviors and actions in your app



"By folding in our HR analytics into our other data, we find the people we retain longest are young, college educated females with two grams of saturated fat, soy lecithin, and artificial vanilla flavors."



"Our dashboards are so advanced, they automatically filter out any bad news"

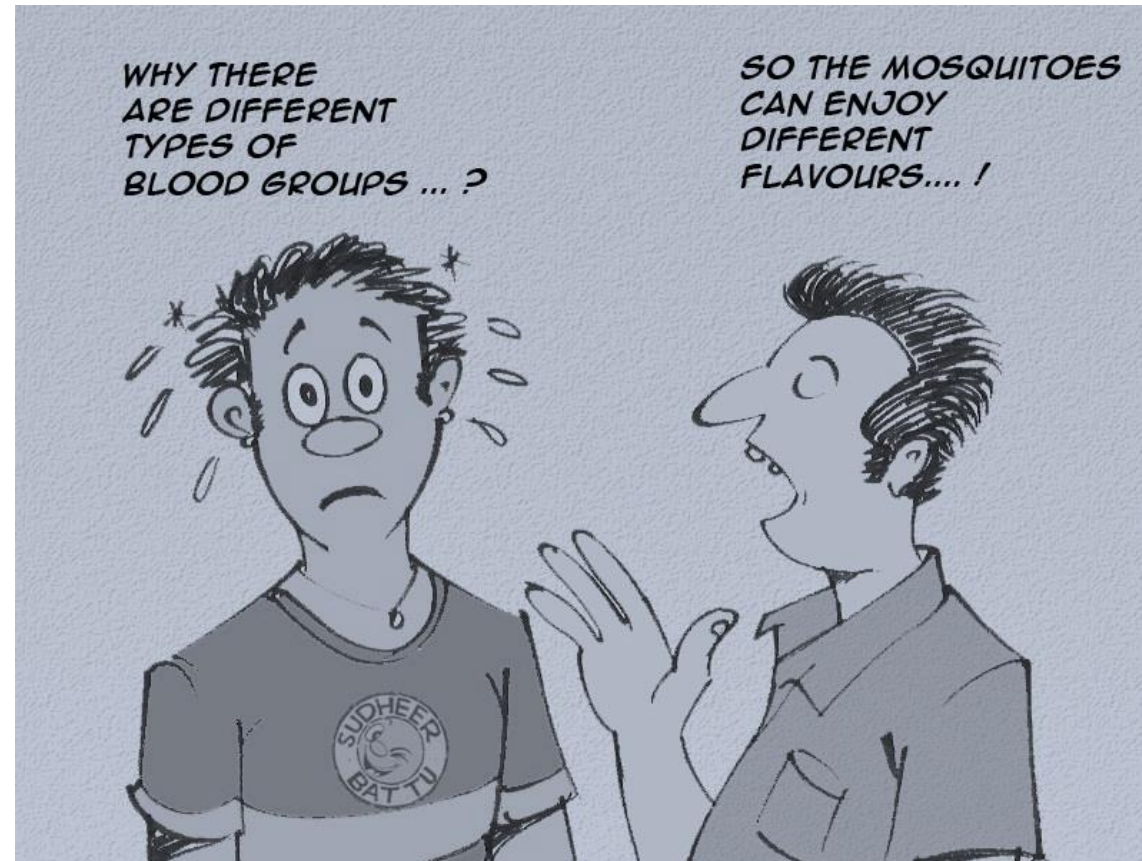
Why do we need it?

its just make your to do list longer

Why, indeed..



Why, indeed..



Why, indeed..

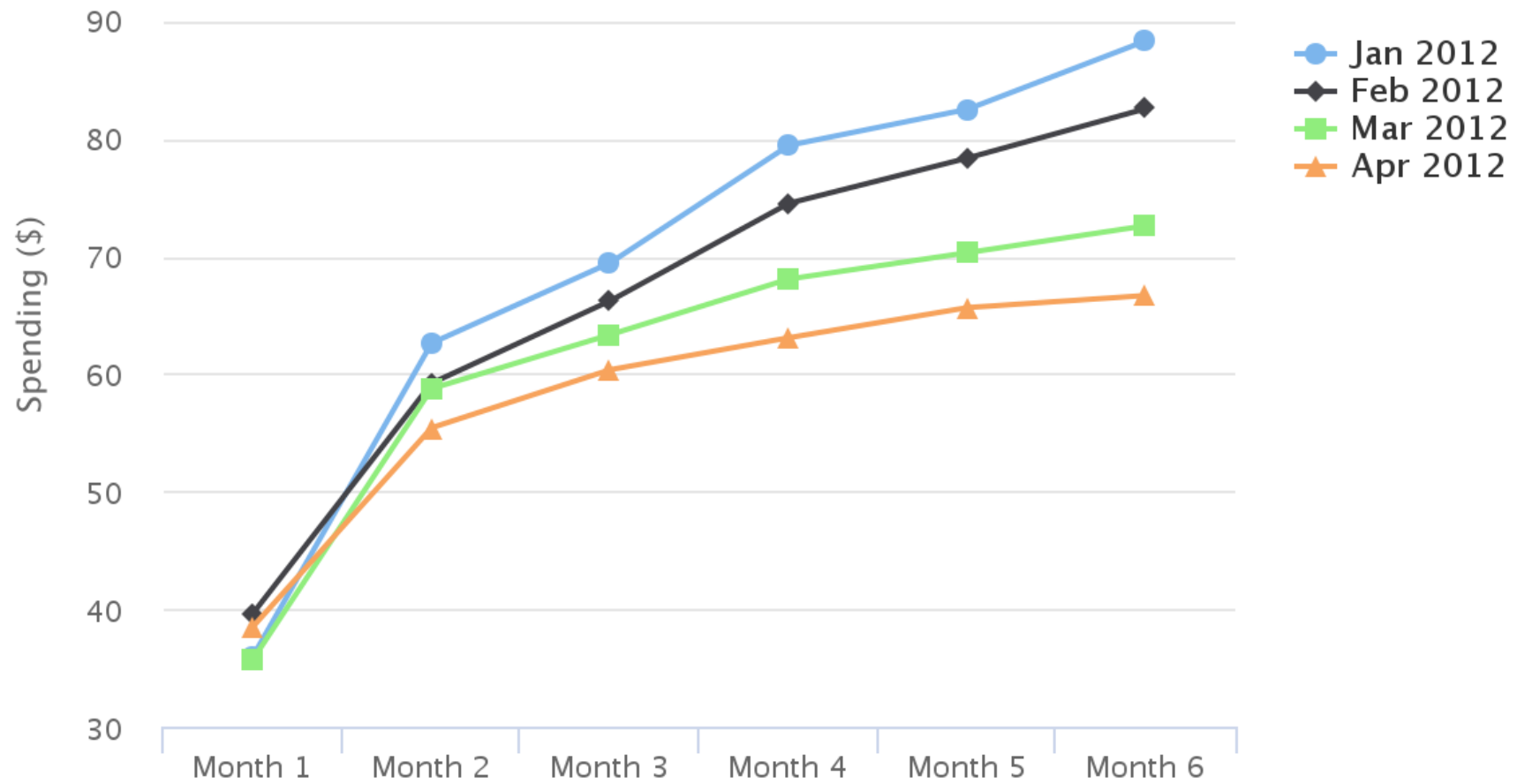


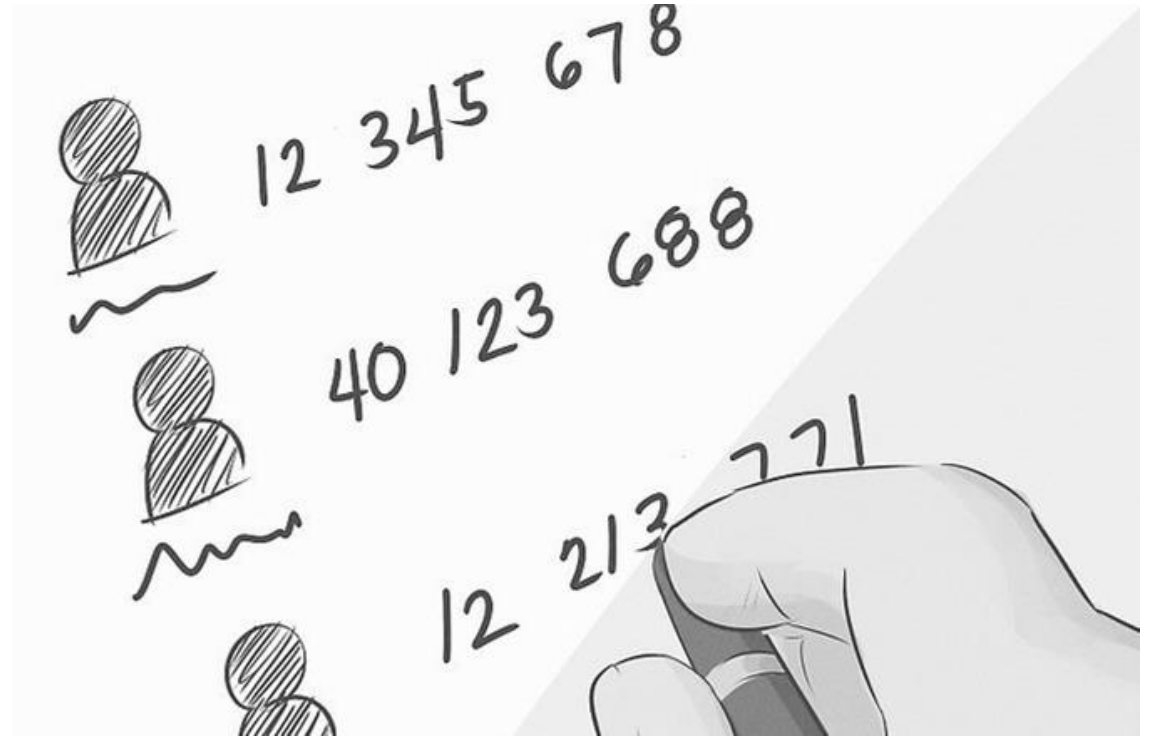
Google Analytics

User retention

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5
All Users	100%	3.1%	1%	0.9%	0.5%	0.3%
18 Jun - 24 Jun						
25 Jun - 1 Jul						
2 Jul - 8 Jul						
9 Jul - 15 Jul						
16 Jul - 22 Jul						
23 Jul - 29 Jul						

Why, indeed..





How to use it?

it's easy, no kidding

How do we start ..??

Grouping



Acquisition cohorts

Adjustment



Behavioral cohorts

How do we start ..??

Example

		Days after subscribing																				
Segment	Users	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Jan 1	896	100.0%	24.7%	23.9%	23.8%	22.0%	21.8%	21.5%	21.0%	20.9%	20.4%	19.9%	18.9%	18.4%	17.0%	15.9%	13.1%	11.3%	9.8%	9.5%	9.3%	9.2%
Jan 2	963	100.0%	25.7%	24.9%	23.8%	22.9%	21.8%	20.9%	20.3%	19.7%	19.1%	18.6%	17.3%	16.2%	15.1%	12.9%	10.1%	9.8%	9.5%	9.4%	9.4%	9.4%
Jan 3	874	100.0%	24.1%	24.3%	23.7%	23.8%	22.1%	20.3%	19.8%	19.1%	18.3%	17.9%	17.0%	15.9%	14.2%	13.8%	10.2%	9.6%	9.5%	9.5%		
Jan 4	809	100.0%	23.8%	23.6%	22.9%	22.6%	21.4%	20.7%	18.7%	18.2%	17.6%	16.9%	15.7%	14.8%	13.7%	12.9%	9.8%	9.7%	9.6%			
Jan 5	891	100.0%	25.1%	24.3%	23.1%	22.9%	21.8%	20.9%	19.6%	18.4%	17.6%	16.7%	15.5%	14.4%	13.1%	12.3%	10.1%	9.6%				
Jan 6	956	100.0%	25.3%	24.8%	24.2%	23.6%	22.2%	21.9%	20.5%	19.2%	17.9%	17.2%	15.9%	14.7%	13.8%	12.6%	9.9%					
Jan 7	932	100.0%	24.7%	24.3%	23.8%	22.7%	21.8%	20.9%	20.0%	19.2%	18.3%	17.3%	16.1%	14.8%	13.9%	12.8%						
Jan 8	1,033	100.0%	26.0%	25.1%	24.9%	24.1%	22.9%	21.8%	20.3%	18.9%	18.6%	17.2%	16.2%	15.1%	14.0%							
Jan 9	998	100.0%	25.9%	24.8%	24.5%	23.8%	22.6%	21.9%	20.6%	18.3%	17.6%	16.9%	15.7%	14.9%								
Jan 10	1,023	100.0%	27.8%	25.7%	24.9%	23.9%	22.9%	21.3%	19.8%	18.9%	18.3%	17.2%	16.1%									
Jan 11	1,120	100.0%	26.9%	25.9%	25.6%	24.1%	23.1%	21.6%	20.7%	20.0%	18.9%	17.8%										

How do we start ..??



Data Science Indonesia

Data Science Indonesia (DSI), adalah sebuah Komunitas yang didirikan pada bulan Mei 2015 yang terdiri dari sekumpulan ilmuwan, seniman dan pembelajar yang ingin membangun budaya Data Driven di Indonesia dengan menginspirasi, mengajarkan serta menawarkan nilai dari sebuah data melalui pendekatan Data Science

Visi Kami:

- Bersama masyarakat menciptakan ekosistem inovasi berbasis data untuk meningkatkan kesejahteraan masyarakat

Misi :

- Menjadi mitra bagi sektor publik maupun swasta untuk mengeksplorasi pendekatan data science dalam mencari solusi atas tantangan yang ada
- Meningkatkan pengetahuan dan kesadaran masyarakat terhadap data science
- Menjadi wadah bagi masyarakat untuk berjejaring dalam konteks pemanfaatan data science



<http://datascience.or.id/daftar-anggota-dsi/>

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