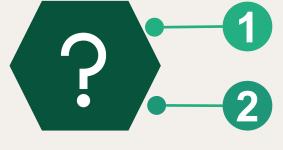


Insights Session #7: Bioeconomy Stakeholders

University of Duisburg-Essen Alexander Kocur & Lea-Marie Braun

Research Questions



Which influential **stakeholder groups** can be identified communicating about biobased textiles and sustainable fashion?

What are the **topics** the identified stakeholders are talking about?

Analytical Procedure

Data processing

- Filter out entries with no connection to sustainable fashion & biobased materials
- Deleting cases with too less impact

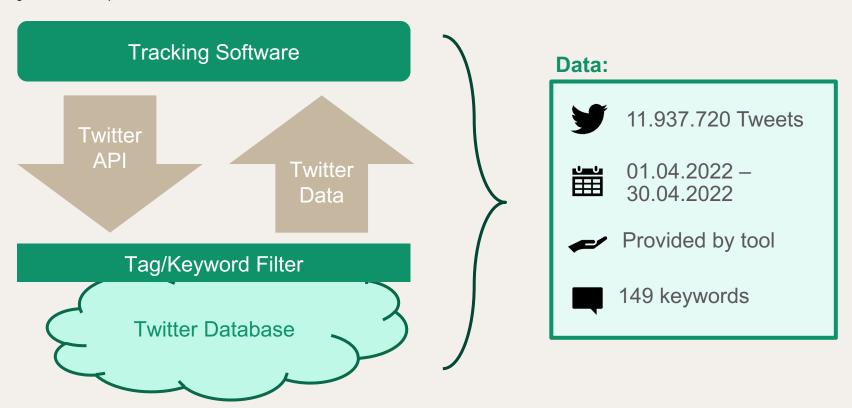
Topic Modeling Topic Modelling of all data using LDA

Manual Coding

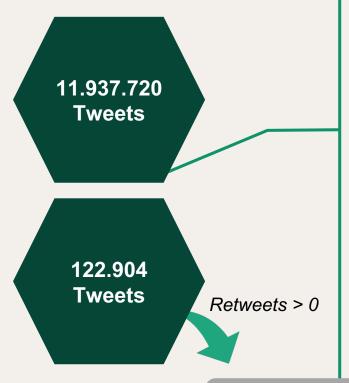
- Coding of 2298 cases in a subsample with four coders
- Labelling stakeholder groups based on author description
- Allocating users to stakeholder groups

Data Tracking & Data Set

(Stieglitz et al., 2014)



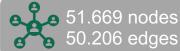
Data Processing



[Gg]arment OR [Ff]abric OR [Cc]loth OR [Ff]ashion OR [Ff]ibre OR [Mm]aterial OR [Ss]hoe OR [Tt]shirt OR [Tt]-[Ss]hirt OR [Pp]ant OR [Jj]eans OR [Jj]acket OR [Ss]ock OR [Ss]kirt

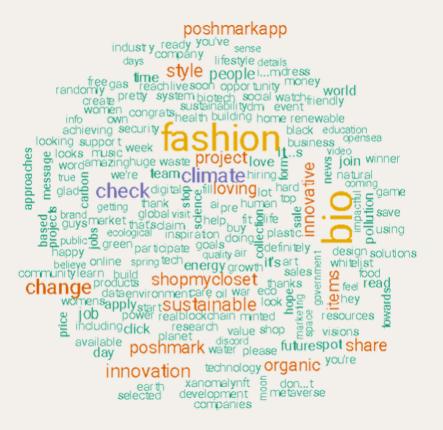


[Ss]ustain OR [Gg]reen OR [Bb]iobase
OR [Bb]iobase OR [Bb]io OR [Aa]lgae
OR [Oo]rganic OR [Rr]ecycl OR [Ff]air
OR [Tt]encel OR [Ll]yocell OR [Cc]orn
OR [Cc]actus OR [li]nnovation OR
[li]nnovative OR [Nn]atur OR [Rr]enew
OR [Ee]thic OR [Ss]low.





Insights into the dataset



Word	Count
Bio	336612
Fashion	290019
Check	115009
Climate	114315
Change	109397
Innovation	99696
Sustainable	90746
Style	86597
Innovative	83074
Share	80943



TOPICS RELATED TO ENVIRONMENTAL PROTECTION

1 – Energy supply	2 – NFTs & Blockchain	3 – Consequences of climate change	4 – Handmade, organic products
 Wind / solar / fossil Energy / fuel / electricity 	Nft / token / cryptoCommunity / marketing	Soil / weather / treeReport / year / planet	 Organic / vegan / healthy Soap / tea / gift
5 – Current crises	6 – Climate protection	7 – Sustainable consumption	8 – Urban pollution
Climate change Covid / war	Environment / sustainable Future / learn / solution	Fashion / design / music Green / organic / nature	 Noise / air / road Pollution / quality

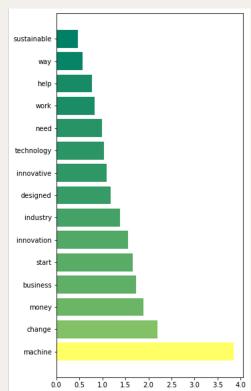
TOPICS RELATED TO SUSTAINABLE FASHION

1 – NFTs	2 – Fashion Innovation	3 – Celebrities	4 – Jewellery
NFTs / NFT community	Technology / innovationSustainability	Influencer / awardFashion icon	Jewellery / necklaceGift / handmade
5 – Fashion on Social Media	6 – Brand communication	7 – Outfits	8 – Second hand shopping
Ootd / fashionista Influencer / fashionblogger	Click bio / today Designer / collection	Wear / look / choice / style	Poshmark / shopmycloset

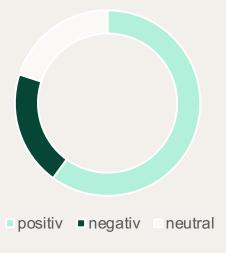


FASHION INNOVATION

Example Topic



Sentiment







Stakeholder Groups

Categories

Niinimäki (2020)	Menke (2021)	Ki (2020)	Stakeholder Group
Industry			
	Alliances		
		Recycling Agent	Companies
	Suppliers	Suppliers / Manufacturers	Other Companies
	Competitors		
Retailer		Retailer	
	CEO		
	Sustainability managers		Employees Other Employees
		Designer	
	Employees		
	Finance market	Investor	Investors
	NGOs		Social movements
Policymaker	Government	Government	Policy makers
	Media		Media
		Academic Institutions	Research
Customer	Customer	Customer	Private Person
	Public Opinion		Influencer / Celebrities

Codebook

Categories

Stakeholder Group	Definition
Companies	All companies, organizations or individuals who are producing or selling sustainable textiles or fashion
Other Companies	All companies that engage in public communication about sustainable fashion but do not operate in the sector from a business perspective or financial perspective
Employees	Individuals that present themselves as part of a company, industry or retailer in the context of sustainable textiles or fashion
Other Employees	Individuals that present themselves as part of a company, industry or retailer in the other contexts than sustainable textiles or fashion
Investors	All actors and actions of the financial market that can have an impact on sustainability efforts of a company
Social movements	All Non-governmental organizations or individuals which present themselves as part of a Non-governmental organizations which is related to climate or sustainability
Policy makers	All legislators who can influence a company's business operations through statutory provisions or regulations
Media	All media organizations, journalists or bloggers that report or communicate about sustainable fashion
Research	Academical institutions or researchers
Private Person	All individuals that engage into public communication about sustainable fashion
Influencer	Actors with a high number of relationships and influence on organizational stakeholders through content production, content distribution, interaction, and personal appearance
Celebrities	Celebrities are defined as opinion leaders who have reached public fame out of social media through mainstream media

Stakeholder Classification

Manual Coding

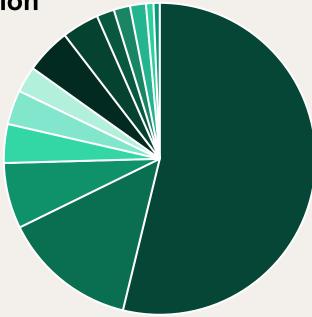
Manual classification of **2298 Twitter accounts** via codebook

- 1 Classification of random sample via manual coding
- 2 Classification of total sample with automated coding (Forthcoming)



Stakeholder Classification

Manual Coding



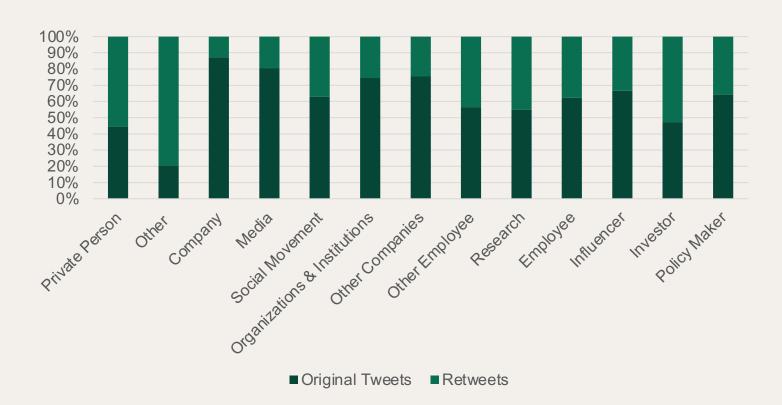
- Private Person
- Media
- Other Companies
- Employee
- Policy Maker

- Other
- Social Movement
- Other Employee
- Influencer

- Company
- Organizations & Institutions
- Research
- Investor

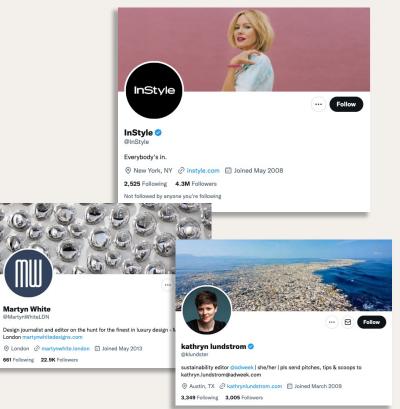


Stakeholder Communication—Retweets



Stakeholder - Media







Media - Follower



Stakeholder - Company

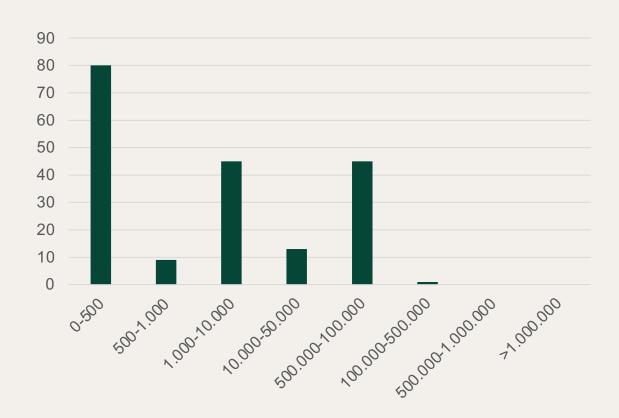




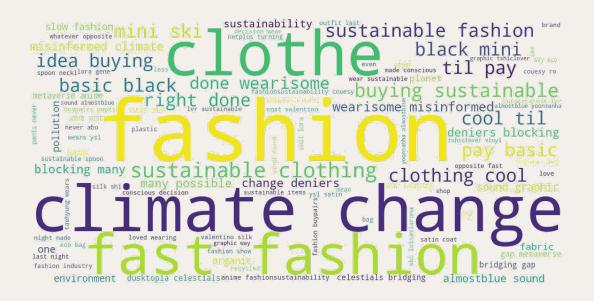




Companies – Follower



Stakeholder - Private Person









Stakeholder Classification - Machine Learning Approach

Next Steps

