



# Pricing algorithms and EU anti-discrimination law

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Current Reflections on EU Anti-discrimination Law

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## Price discrimination and pricing algorithms

### Price discrimination is broadly defined

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Personalised pricing

Pricing differently based on personal data ( $\neq$  dynamic pricing)

Personalised discounts

Providing targeted discounts based on personal data

Search steering

Providing targeted search results based on personal data

## Price discrimination is broadly defined

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Retail

Hairdressers  
Mother's Day  
Online stores

Insurance

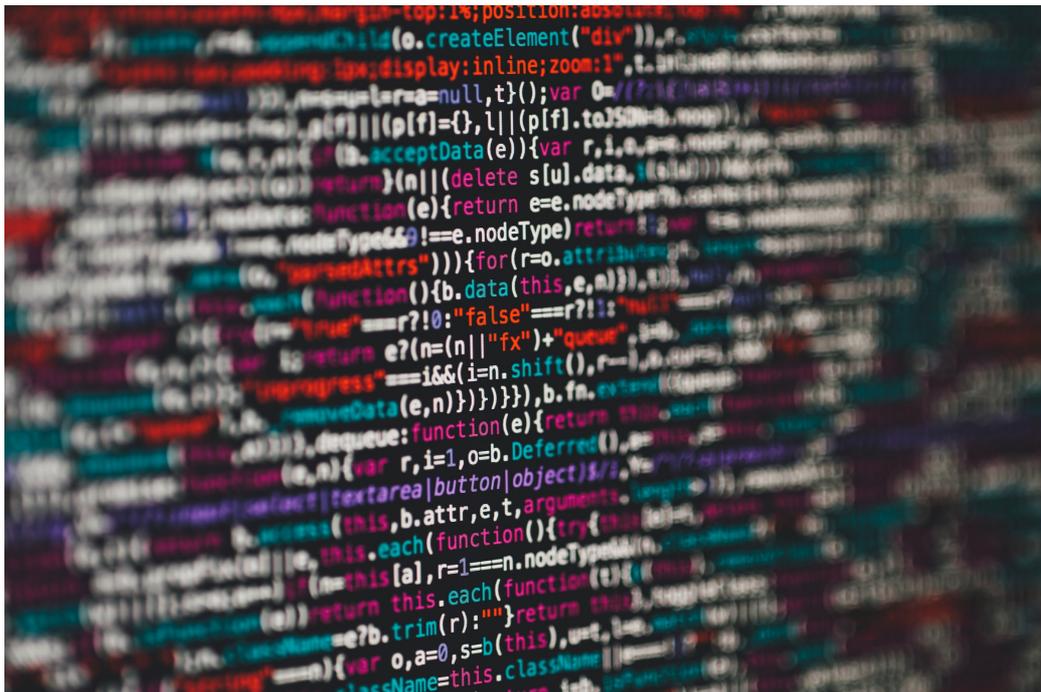
Longer life expectancy  
Smoking habits  
Fitness habits

Lending

Redlining  
Subprime lending  
Credit scoring

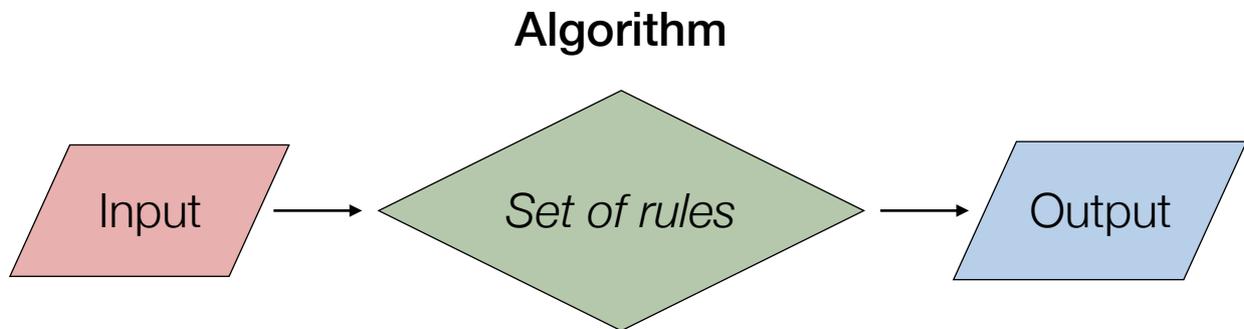
## What is a (pricing) algorithm?

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## What is a (pricing) algorithm?

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## Examples of pricing algorithms

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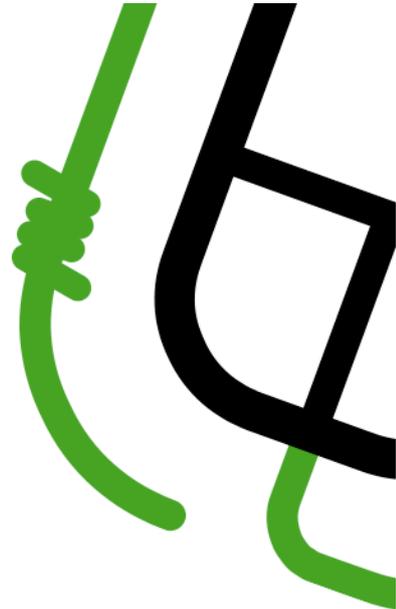
### **Websites Vary Prices, Deals Based on Users' Information**

It was the same Swingline stapler, on the same Staples.com website. But for Kim Wamble, the price was \$15.79, while the price on Trude Frizzell's screen, just a few miles away, was \$14.29.

The Wall Street Journal (24 December 2012)

# Examples of pricing algorithms

## PERSONALISERING: VAN PROMOTIE TOT PRIJS



Gepersonaliseerde prijzen in Nederland – Floris Kreiken

26 april 2016



# Examples of pricing algorithms

Coolblue en MP3-spelers

€ 159,-

179,-

Bits of Freedom  
(26 April 2016), p. 24

## Examples of pricing algorithms

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- Factors: Age, sex and moves

The OpenSchufa data set suggests that factors such as age, gender and many moves affect the Schufa score. For example, young men are often worse off.

Open Knowledge Foundation, "OpenSchufa: The first results"  
(29 November 2018)

## Examples of pricing algorithms

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Original      **Anwältin verklagt Schufa**

Google  
Translate      **lawyer sued Schufa**

**They earn a similar amount and have shared real estate. Nevertheless, a Munich lawyer is rated worse by the Schufa credit agency than her husband.**

Süddeutsche Zeitung (24 February 2016)

## Pricing algorithms are complex

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The algorithmic  
“black box”

Thousands of parameters,  
logic behind often unclear

Potential bias

Testing and training data,  
third-party brokers

Practical difficulties

How to know if used?  
How to prove it?

EU data protection law



## The GDPR has a wide scope

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Personal data

Any information allowing an individual to be identified or identifiable

Data processing

Data collection, organisation, storage, combination...

Territorial scope

EU data subject targeted or monitored

## The GDPR protects data subject rights

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Right to information

*Ex ante*, automated decision-making or profiling, logic involved

Right to access

*Ex post*, workings of the algorithm, possible consequences

Automated decision-making

Art. 22 GDPR, does it apply?  
If so, additional protection

EU anti-discrimination law

## Price discrimination prohibited on grounds of...

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Gender

Directive 2004/113/EC

Racial or ethnic origin

Directive 2000/43/EC

Nationality,  
“place of residence”

Art. 18 TFEU,  
“Geo-Blocking Regulation”  
(2018/302)

## Anti-discrimination legal concepts apply

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Direct discrimination

Price decided on the basis of a prohibited ground, even partly, or a proxy thereof

Indirect discrimination

Pricing disproportionately disadvantages a protected group without an adequate justification

Discrimination by association

Individual affected is associated with those holding a protected characteristic

## Applicable CJEU case law

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Test-Achats (C-236/09)

Use of sex as a factor to calculate premiums and benefits in insurance no longer allowed

CHEZ (C-83/14)

Direct discrimination if measure introduced for reasons relating to the ethnic origin of most inhabitants

NH, Accept, Feryn

Discriminatory statements by employers or those having a decisive influence on recruitment policy

## Pitfalls of current EU anti-discrimination law

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Burden of proof

Too high in practice, new rules on the sharing of the burden of proof needed?

Enforcement

Reliance on individual litigation, role of national equality bodies

“Minor” harm

Where to set the bar?  
*De minimis*, expressive harm

## Moving forward

## EU anti-discrimination law should evolve

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More comprehensive,  
adequate protection

Clarify what direct and indirect  
discrimination entail in algorithms,  
sharing of the burden of proof

Stronger mandate  
to equality bodies

Recognise their role to combat  
algorithmic discrimination  
and enhance their powers

Socioeconomic  
disadvantage

Link between price  
discrimination and poverty

## Additional safeguards in EU law

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Data subject rights as  
transparency tools

Right to information and  
to access to facilitate proof  
of discrimination

Automated  
decision-making

Recognise the applicability  
of Art. 22 GDPR to pricing  
algorithms

Pre-contractual obligations  
(consumer protection)

Inform consumers of price  
personalisation based on  
automated decision-making

## Conclusions

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- Pricing algorithms pose real challenges in terms of (EU) anti-discrimination law
- Existing EU anti-discrimination law is inadequately equipped to tackle algorithmic price discrimination
- EU anti-discrimination law should evolve to face those challenges: new rules needed
- Additional safeguards may be derived from other EU norms: data protection law, consumer protection law

## Conclusions

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Laura Drechsler and Juan Carlos Benito Sánchez.  
“The Price Is (Not) Right: Data Protection and  
Discrimination in the Age of Pricing Algorithms”.  
European Journal of Law and Technology 9, no. 3 (2018)



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