Who's Most Targeted and Does My New Adblocker Really Help?

- A Profile-based Evaluation of Personalized Advertising

Sofia Bertmar, Johanna Gerhardsen, Alice Ekblad, Anna Höglund,
Julia Mineur, Isabell Öknegård Enavall, Minh-Ha Le, **Niklas Carlsson**

Linköping University, Sweden

LINKÖPING UNIVERSITY

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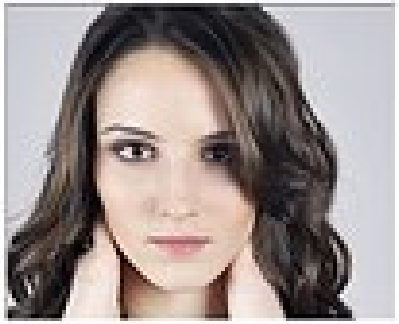
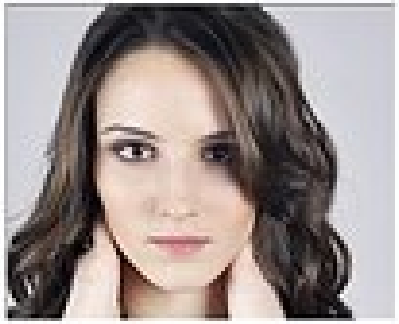
Jennifer



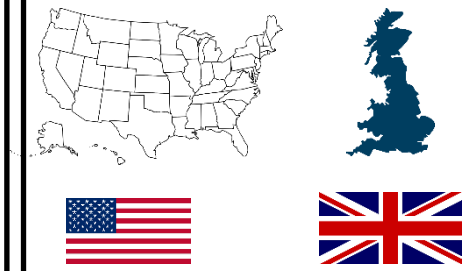
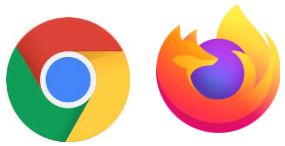
James

Who sees the biggest fraction targeted ads?

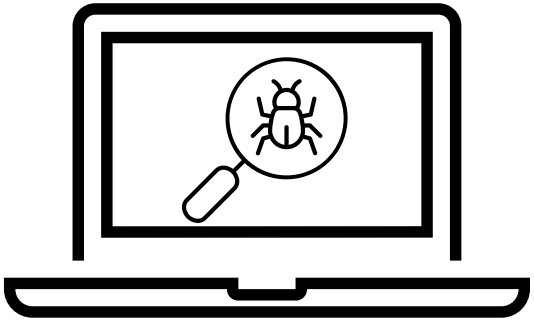
Jennifer



James

Persona	Blocker	Location	Browser
	No blocker		
Persona	Blocker	Location	Browser

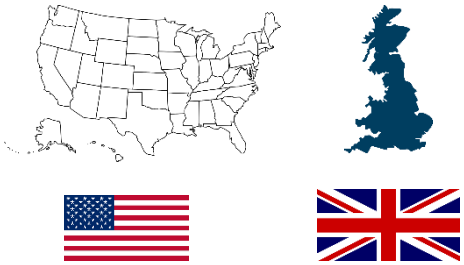
Contributions

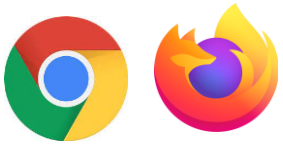


Data-collection tool **emulating user sessions** of specific personas

Contributions

Data-collection tool emulating user sessions of specific personas

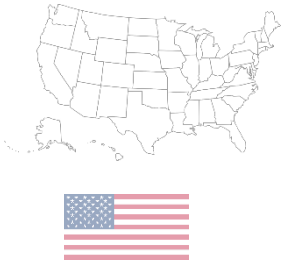




Experimental design + measurements + analysis **evaluating the impact that many factors have on the personalization** experience by 6 persona

Contributions

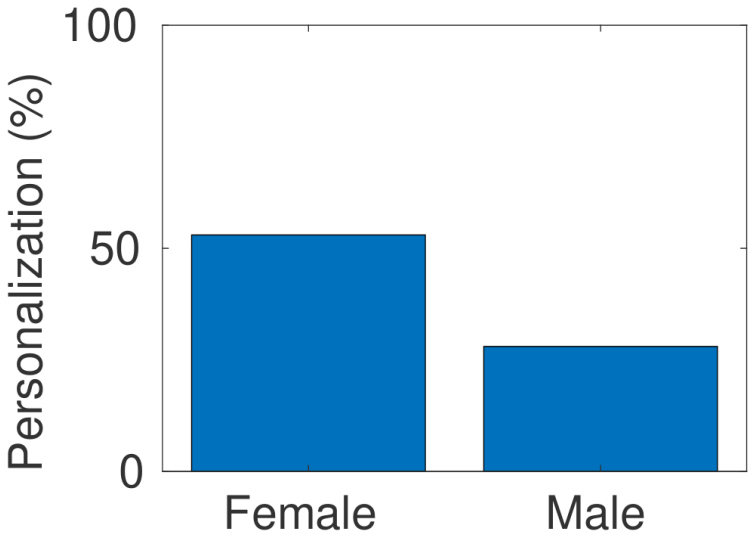
Data-collection tool emulating user sessions of specific personas



Experimental design + measurements + analysis evaluating the impact that many factors have on the personalization experience by 6 persona

Report findings and share key insights (in paper)

Example results: Gender



Females see almost twice as much targeted ads as the males

Example results: AdBlockers

Ad blockers reduces number of ads but …

Example results: AdBlockers

Ad blockers reduces number of ads but …

Extension	AB.	AB.+	Gho.	Cat.	None
Targeted	64.9%	52.7%	77.8%	13.1%	40.4%
p-value	<0.0001*	0.0078*	<0.0001*	0.0014*	

+20.5% *+12.3%* *+37.4%*

Use of 3 out of 4 extensions results in a significant increase in fraction of personalized ads (…)

Example results: Regional differences

13 ads/session

39 ads/session

UK users see much less ads than the corresponding US users

Example results: Regional differences

13 ads/session

39 ads/session

UK users see much less ads than the corresponding US users

West

39.1 ads/session

East

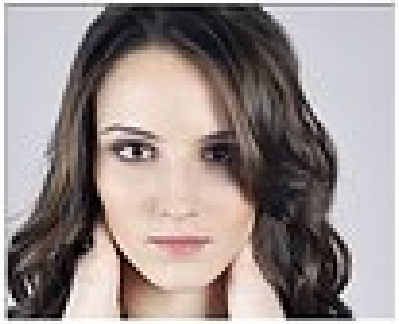
38.8 ads/session

Very small differences between US East and US West

Example results: Browser comparison

Personalization levels and our conclusions appear consistent regardless of whether the users used Chrome or Firefox

Jennifer



James

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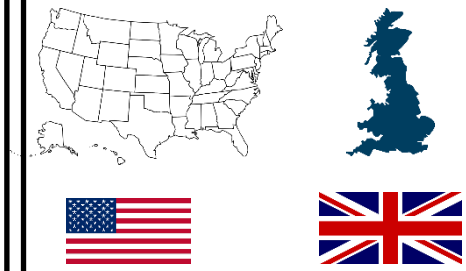
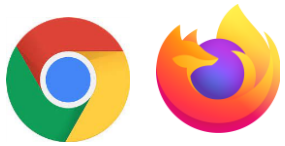
	No blocker		
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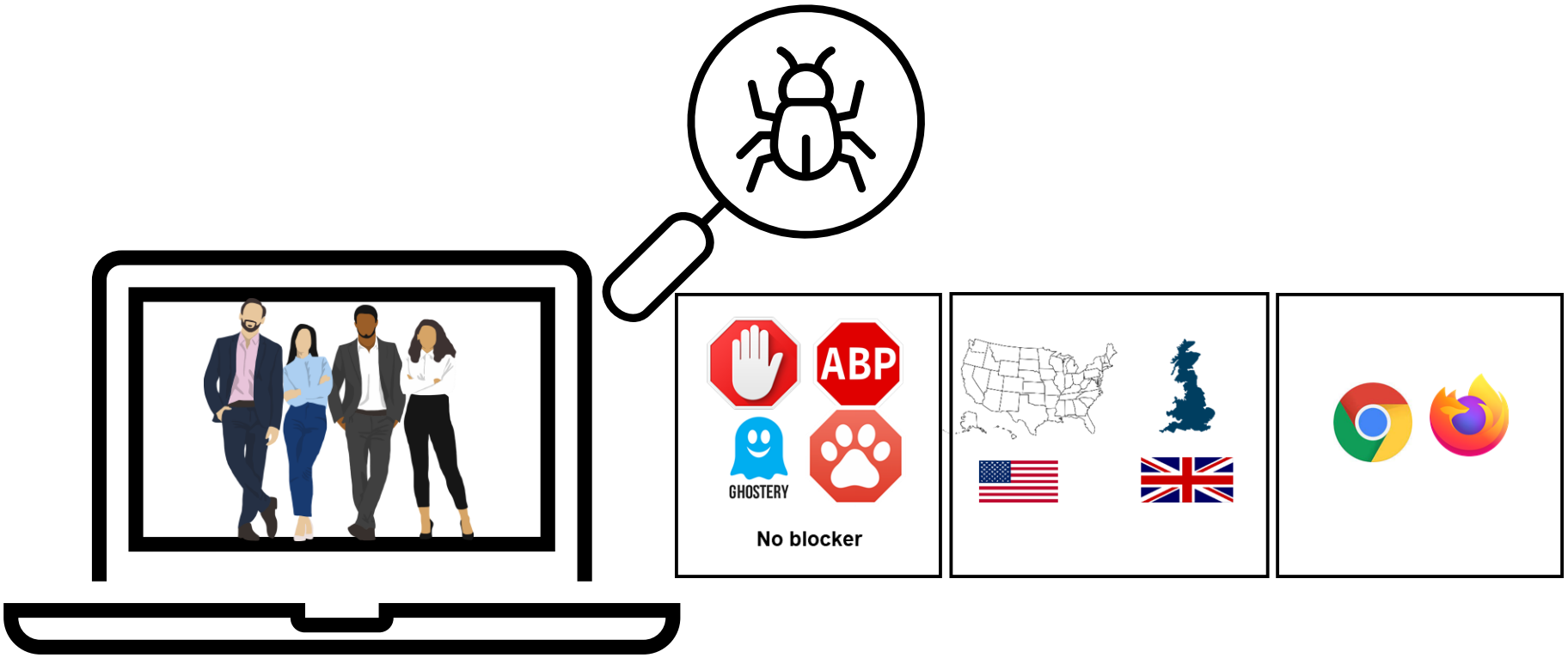
ABP
GHOSTERY
No blocker

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ABSTRACT

The success stories of targeted and personalized advertisements can be intimidating and offend some. One popular way to reduce the exposure to such targeting is to use adblockers and other pri- vacy enhancing browser extensions. While there are a lot of wo- studying the effectiveness of adblockers, there is very limited ior work studying how the personalization experienced by dif rent users is impacted by the use of these technologies, geograph c lo- cation, the user's persona, or what browser they use. To ad ress this void, this paper presents a novel profile-based evaluatio of the personalization experienced by carefully crafted user profi Our evaluation framework impersonates different users

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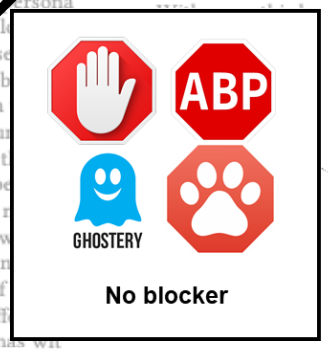
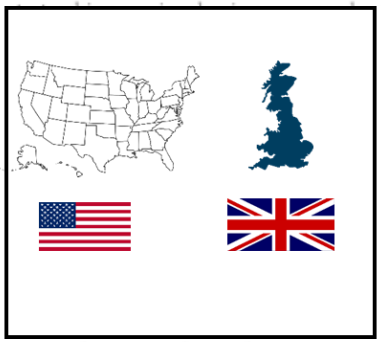
1 INTRODUCTION

The online advertising market is expected to top 400 billion US dollars in 2021 [38]. Given that companies want the most out of their advertising spendings, it is perhaps not surprising that today's users are highly tracked and that significant efforts are being made to use this information to build online profiles of these users and to present personalized and targeted ads to potential consumers [28].





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** Illustrative images created using images from pixabay.com*