Let‘s Hash

Helping Developers with Password Security

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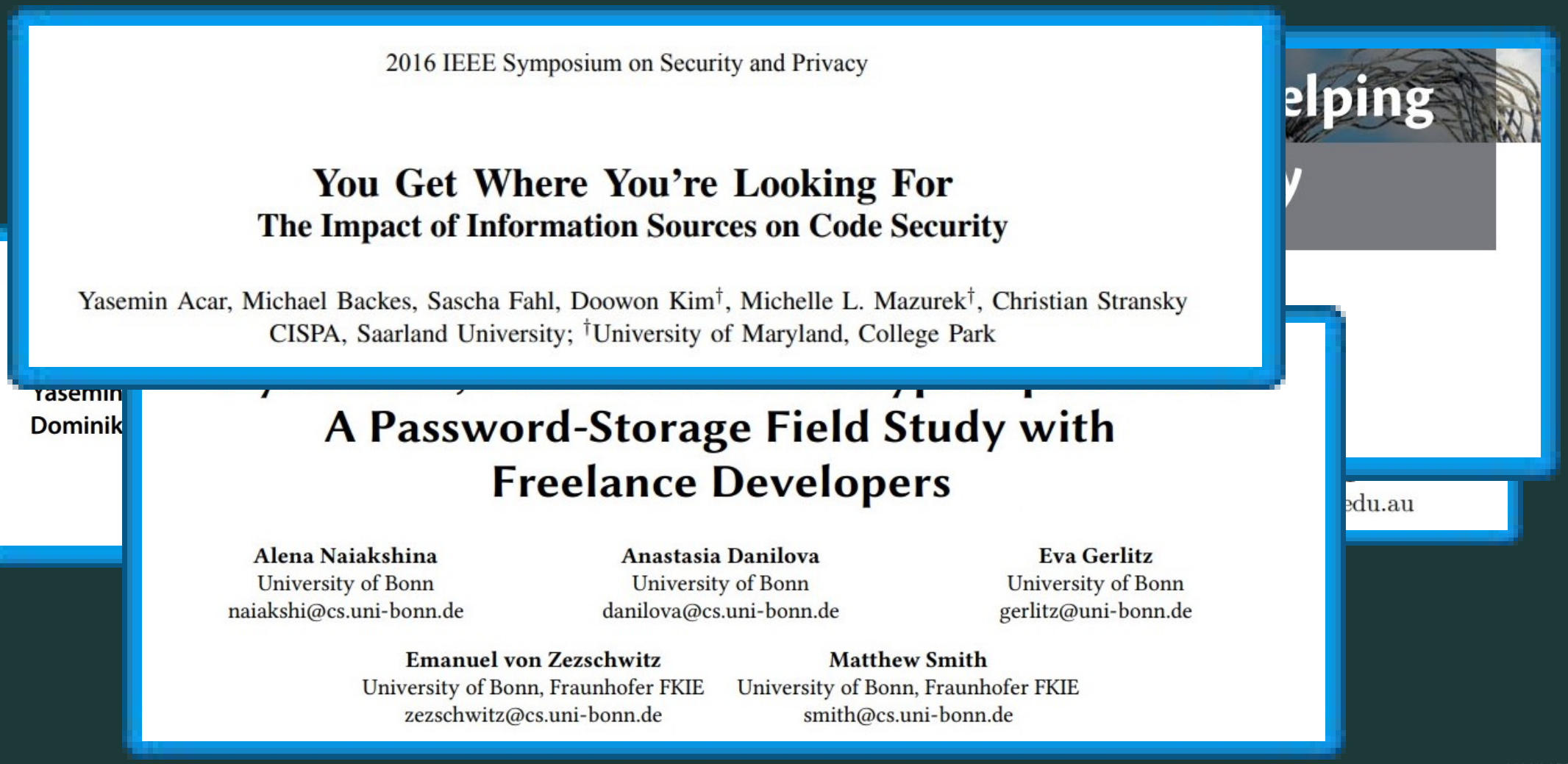
Background



2016 IEEE Symposium on Security and Privacy

You Get Where You're Looking For
The Impact of Information Sources on Code Security

Yasemin Acar, Michael Backes, Sascha Fahl, Doowon Kim†, Michelle L. Mazurek†, Christian Stransky
CISPA, Saarland University; †University of Maryland, College Park

A Password-Storage Field Study with Freelance Developers

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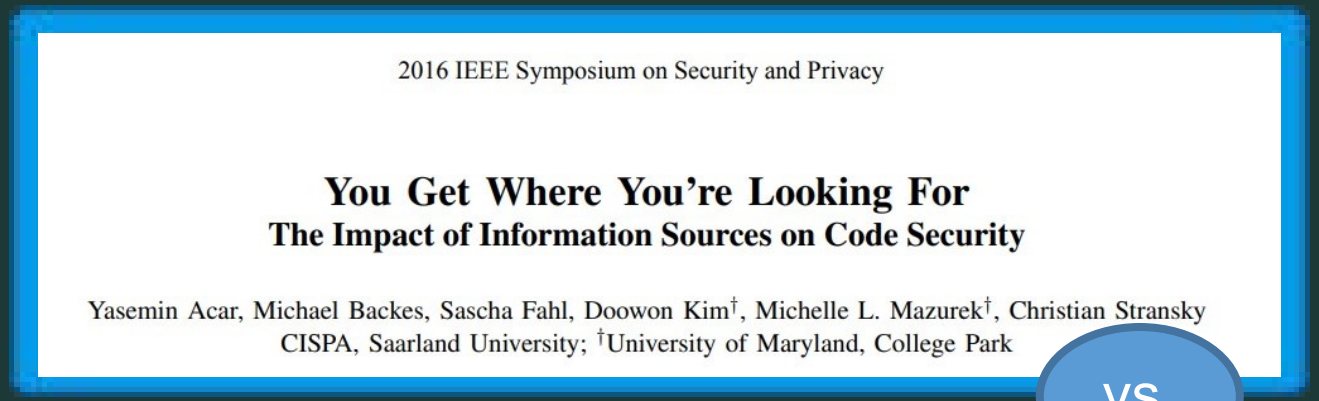

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Usable resources
!=
secure code

vs.

"If you want, I can store the encrypted password." A Password-Storage Field Study with Freelance Developers

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Secure solutions via copy-paste

Coding Resources

Usable?

Usable **and secure!**

Let’s Hash

Multiple languages

Different security-sensitive topics

Code fragments ready to use

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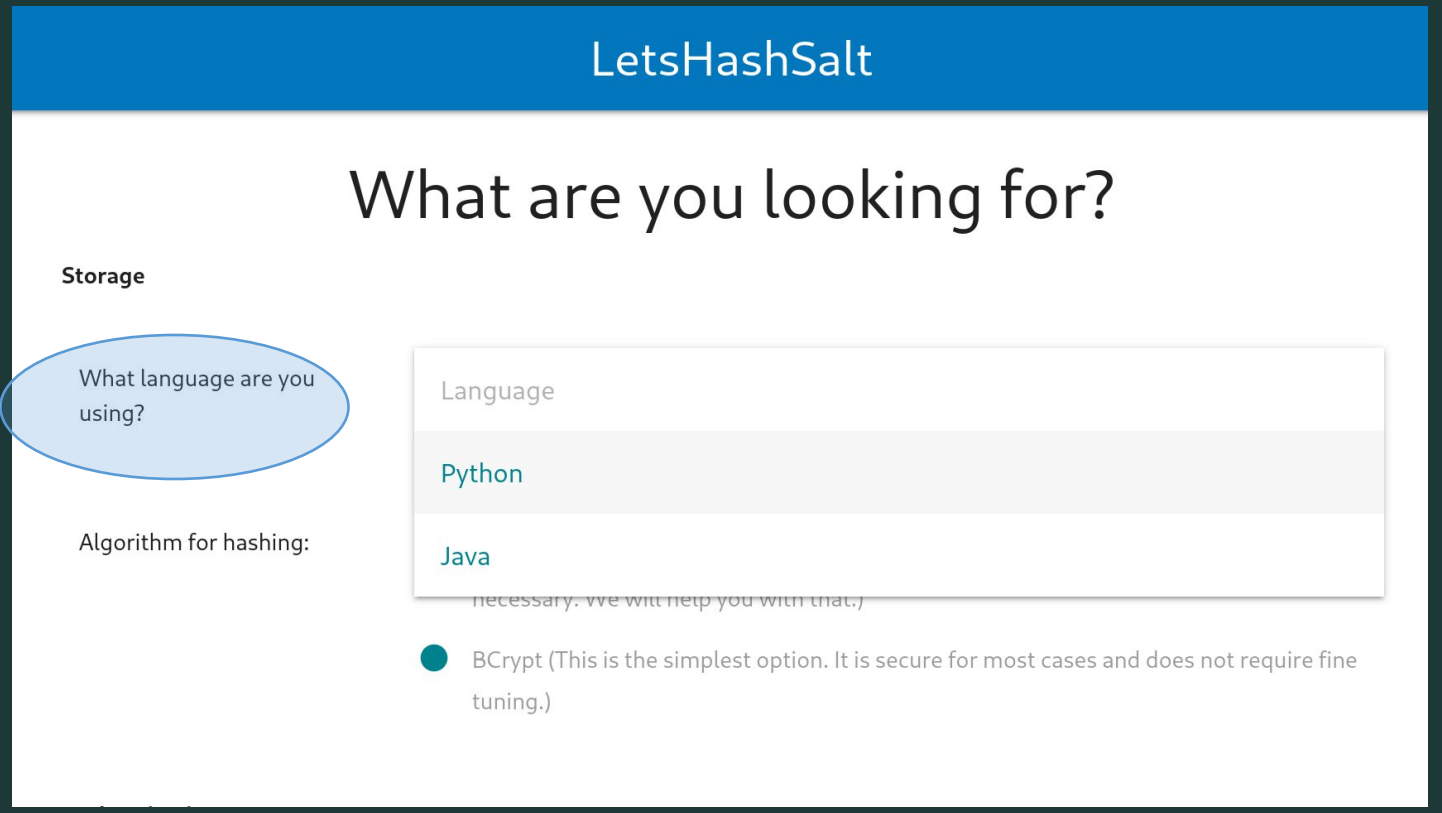
Let’s Hash “Wizard”

Wizard-like UI
with
guiding questions



Developer Study

Participants from Freelancer.com

n=179

Three programming tasks + survey

Developer Study

Three groups:

LH:
Let’s Hash

LH-W:
Let’s Hash
(with wizard)

Control group
(commonly used
resources)

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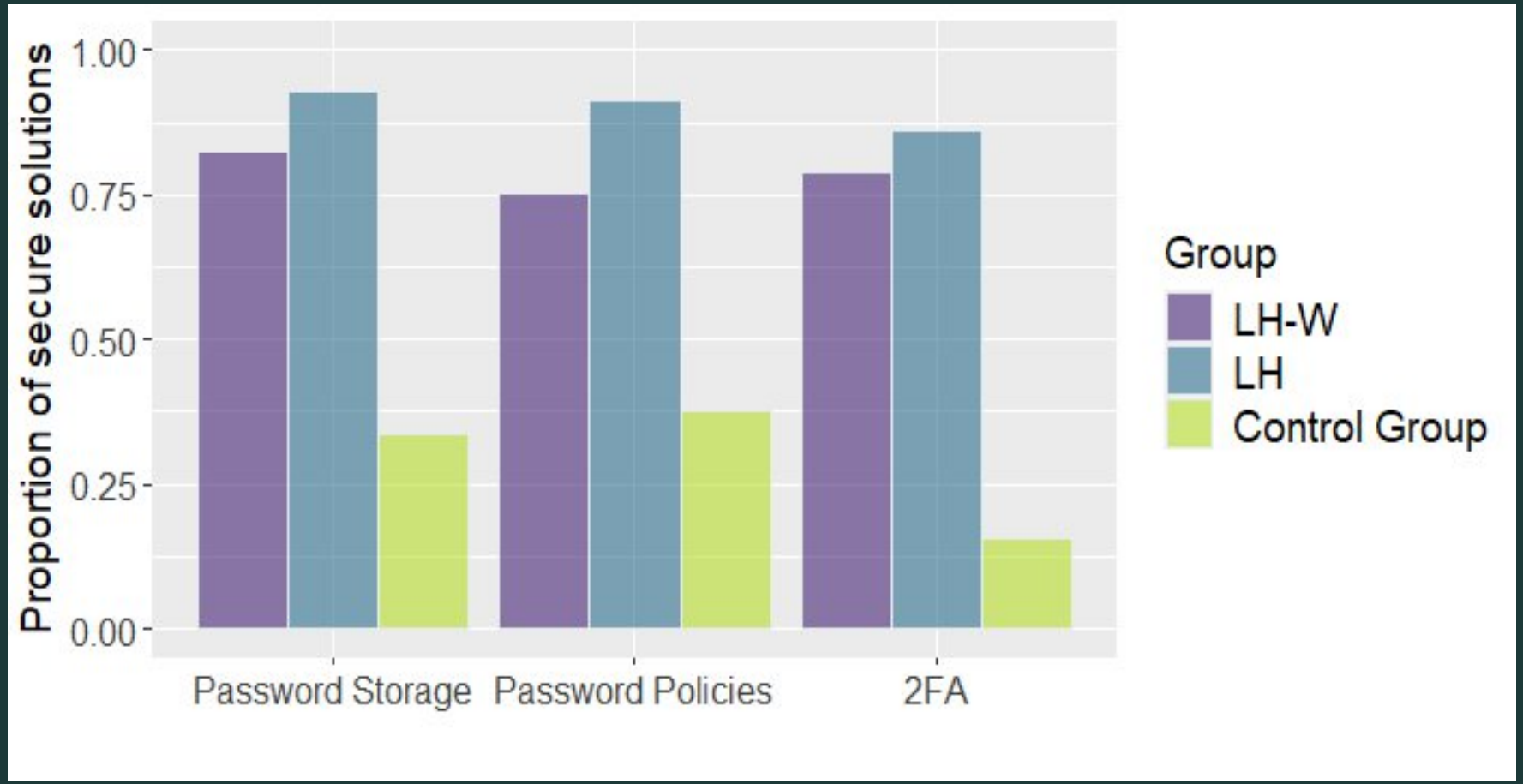
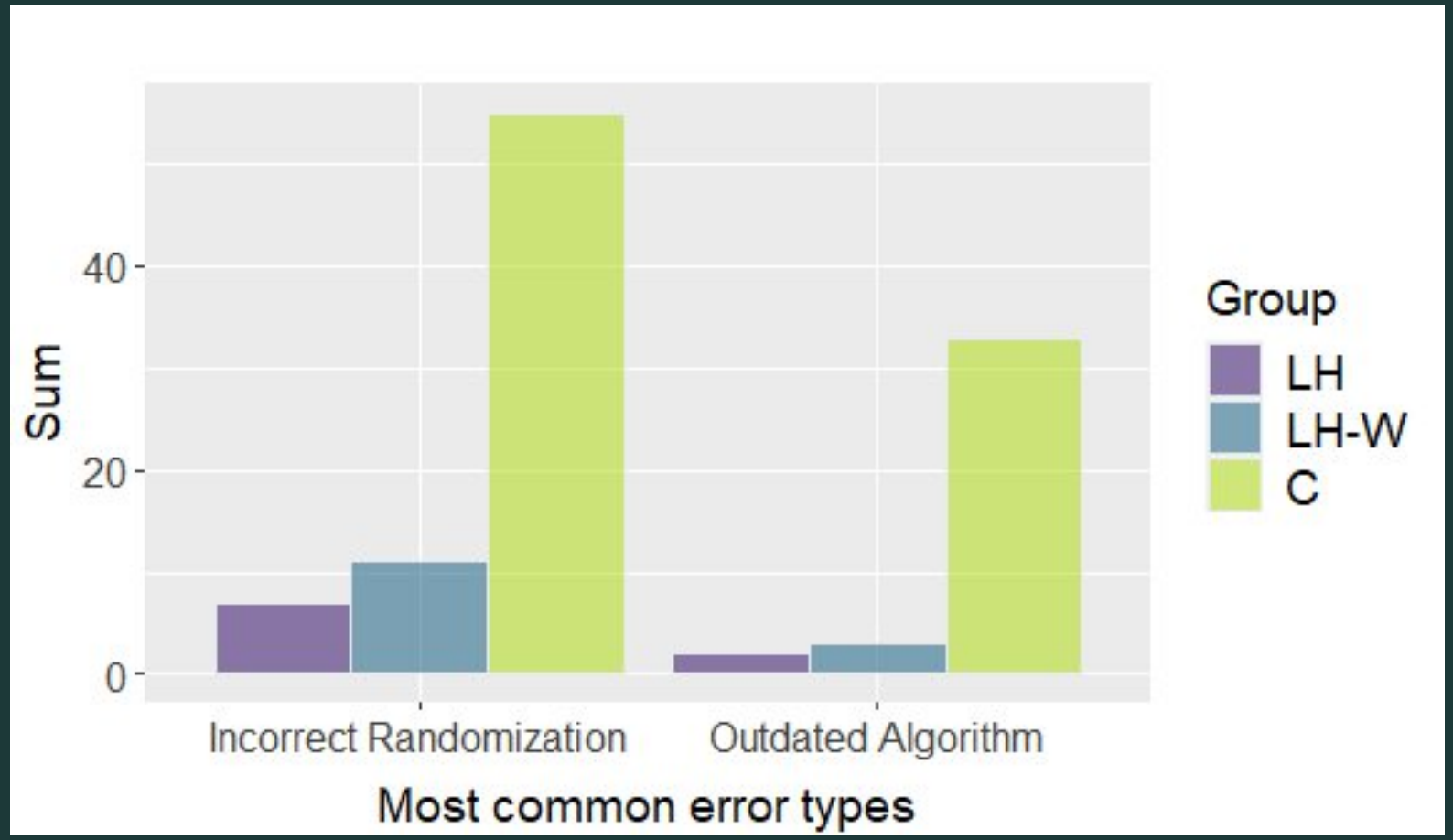
Results



Secure solutions by task and group

Results – Error Types



Security
error types
by task and group

Results - Feedback

Trustworthy, because it is not a forum post

Easier to use than other resources

I would use it again

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- Introduced Let’s Hash: A website to help developers with tasks around password security
- Developer study (n=179): Developers using Let’s Hash had a significantly higher chance of producing secure code
- Resources that are usable **and** secure can significantly improve code quality

https://www.letsauth.dev

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