

Lessons Learned in Communicating Differential Privacy to Data Subjects

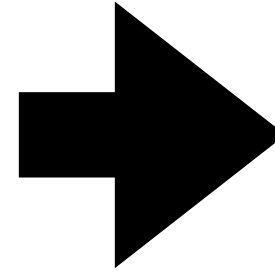
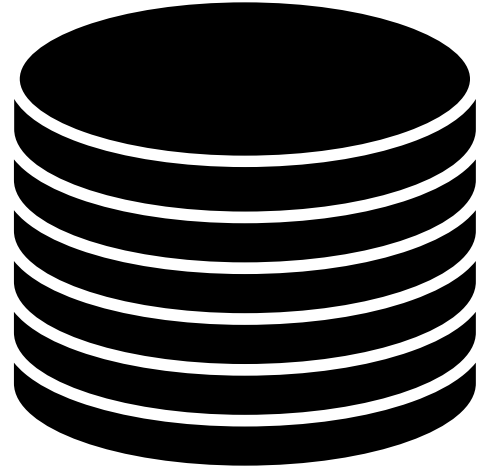
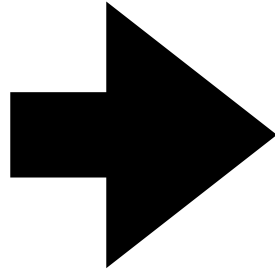
Mary Anne Smart
UC San Diego

Priyanka Nanayakkara
Northwestern University

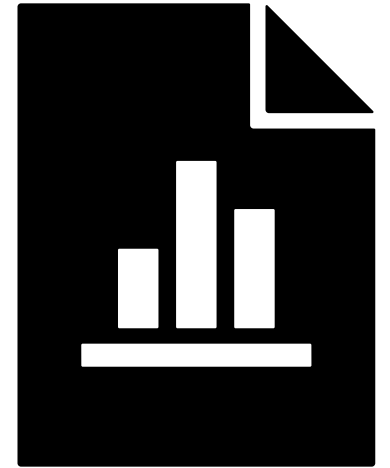
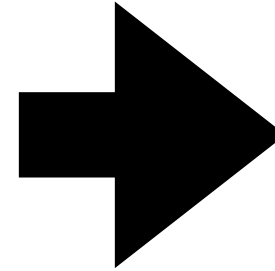
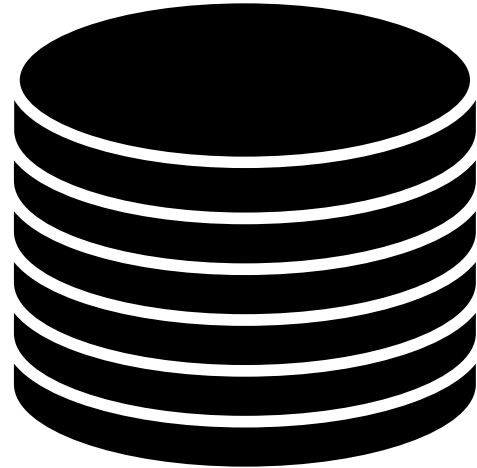
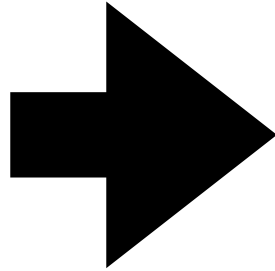
Rachel Cummings
Columbia University

Gabriel Kaptchuk
Boston University

Elissa M. Redmiles
MPI-SWS



+ noise!

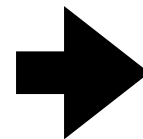
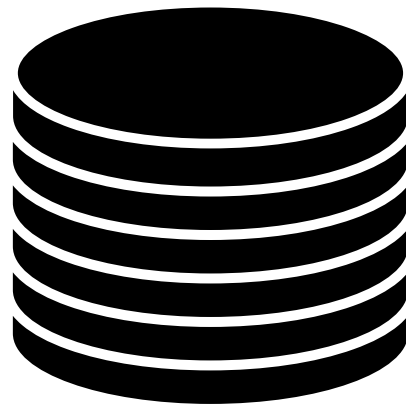
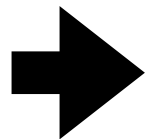


Differential Privacy

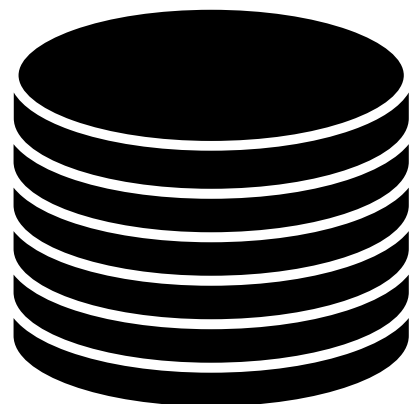
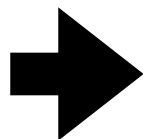
Local



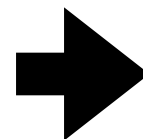
+ noise



Central



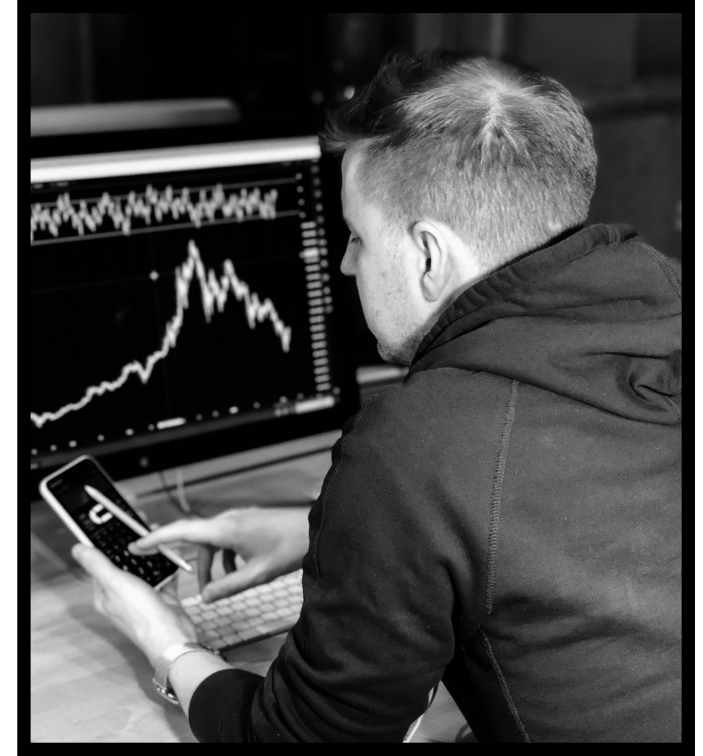
+ noise



privacy



utility



more noise

ϵ

less noise

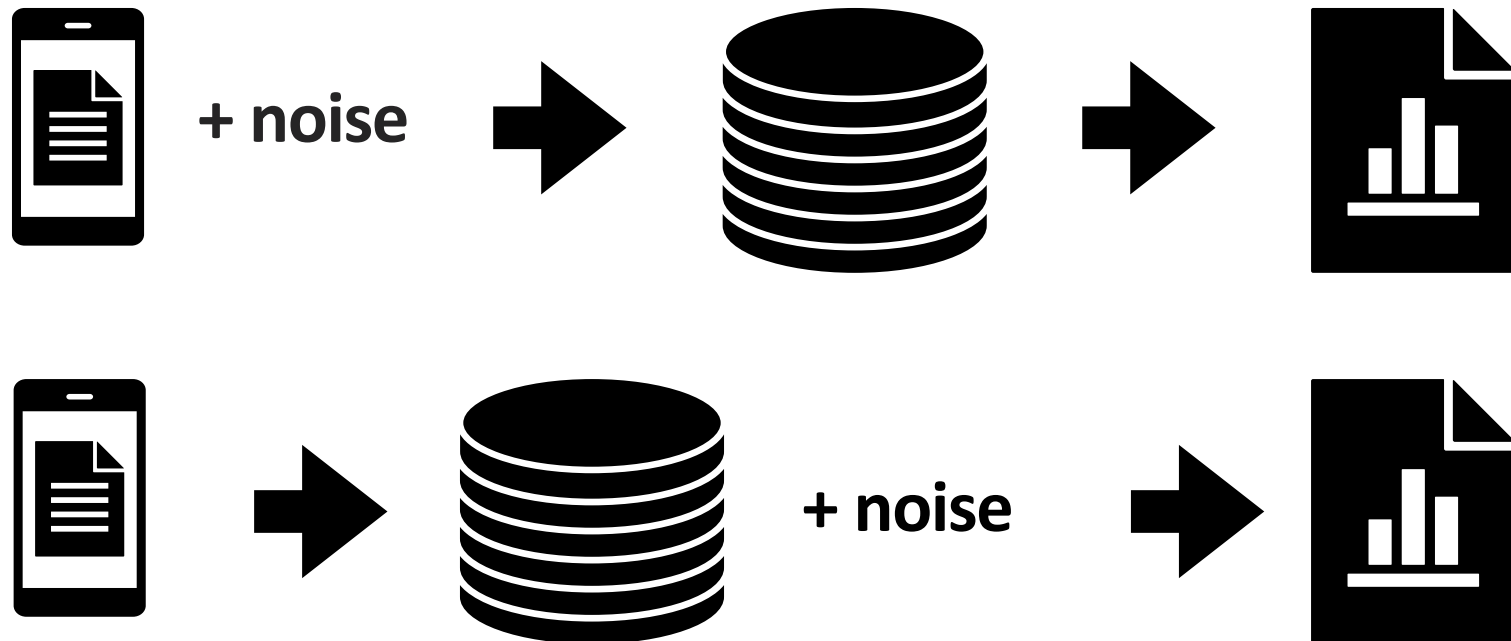


Challenges

- Local vs Central
- Epsilon

Challenges

- **Local vs Central**
- Epsilon



Challenges

- Local vs Central
- **Epsilon**

privacy



utility



more noise

ϵ

less noise



Challenges

- Local vs Central
- **Epsilon** ← Priyanka Nanayakkara will be presenting on this work at USENIX Security on Wednesday!

Key Takeaways

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Even though I would worry about the consequences, I hope that this might be an opportunity for my boss to reflect on why I don't feel supported. It might help start a conversation.

Key Takeaways

- The implications of DP should be stated explicitly in concrete terms.
- People care about both privacy *and* utility.
- A good explanation may in some cases *decrease* data sharing.