IMPROVEMENTSCAN - CANVAS

Homomorphic encryption

NAME: Homomorphic encryption

DATE: May 4, 2024 3:41 AM

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DESCRIPTION OF TECHNOLOGY

homomorphic encryption is a new technology which allows for computations on homomorphic encrypted data. this makes it easier to perform, for example, computations on highly confidential hospital or business data and allows for it to be outsourced. (because the one receiving the data doesnt know what it is and can only run computations on it without seeing the decrypted results)

nice if there was an even more effective way to use it, maybe

HUMAN VALUES

none atm



TRANSPARENCY

i don't think any improvements need to be made. they are very transparent regarding how the complicated formulas work but not too transparent. because you are using with encryption you can't just tell exactly how it works. because then people will miss-use that information

IMPACT ON SOCIETY

in the form of a GUI.



STAKEHOLDERS

none at the moment, maybe involve a company later



SUSTAINABILITY



there are no improvements i can think off at this point in time

HATEFUL AND CRIMINAL ACTORS

have a harder time gaining access to it

system, making the system require at least 2 keys stored at

different locations to decrypt the data, this way bad actors



DATA

it would be nice if there was a way to analyze the and decide how to best encrypt it and run computations on it without corrupting the data



FUTURE



there is one big improvement i would like to make. the encryption system needs to be more secure. there needs to be more than just 1 secure key to decrypt the data. that way it's harder for a hacker to gain access to the key and decrypt all data

PRIVACY



i think it should be better stated by privacy related companies how this technology fits in the privacy laws, at this time this is very vague

INCLUSIVITY



it would be nice if there was an explanation for the people so they too could understand how they would benefit from it

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IMPROVEMENTSCAN - CANVAS - HELPSIDE Homomorphic encryption

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HUMAN VALUES

Now that you have thought hard about the impact of your technology on human values, what improvements...

If you think about the impact of this technology on human values and needs. If you think about how this technology affects the identity of the user, the autonomy of the user (can the users make their own decisions?) and the health and well-being of the user. If you think about all that, what improvement would you (want to) make? In the technology?...

TRANSPARENCY



Now that you have thought hard about the transparency of this technology, what improvements would you like t...

If you think about the communication on the way the technology works and the businessmodel. If you think about the explanation on automatic decisions that are made. If you think about complaint procedures and transparency on possible negative effects. If you think about all that, what would you (want to) improve? In the technology? In context?...

IMPACT ON SOCIETY



Now that you have thought hard about the impact of this technology on society (by filling out the questions...

If you think about the real problem this technology is going to solve. If you think about the ability of this technology to solve the real problem. If you think about possible negative effects and whether this technology will contribute to a world you want to live in. If you think about all that, what improvements would you make? In technology? In context? In use?...

STAKEHOLDERS



Now that you have thought hard about all stakeholders, what improvements would you like to make? List them...

If you think about all stakeholders of this technology. If you think about stakeholders that are less obvious. If you think about the way certain stakeholders are affected by this technology and if you want to take them into consideration. If you think about all that, what would you (want to) improve? In the technology? In context? In use?...

SUSTAINABILITY



Now that you have thought hard about the sustainability of this technology, what improvements would you like t...

If you think about the direct and indirect energy use and the materials that are used in the technology. If you think about the lifespan of the technology and the hidden environmental impact of the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?...

HATEFUL AND CRIMINAL ACTORS



Now that you have thought hard about how bad actors can impact this technology, what improvements would...

If you think about this technology being used to break the law, or avoid the consequences of breaking the law, or to be used against certain groups, or to attack the truth or to pit certain groups against each other. If you think about all of that, what improvements would you (want to) make? In the technology? In context? In use?...

DATA



Now that you have thought hard about the impact of data on this technology, what improvements would you...

If you think about the limitations of data. Things like subjectivity, incomplete datasets and so on. If you think about the way new insights are handled. If you think about the sustainability of the collection of data or the data that is collected from the users. If you think about all that, what would you (want to) improve? In the technology? In context?...

FUTURE



Impact Improvement: Now that you have thought hard about the future impact of the technology, what...

If you think about an utopian and a dystopian scenario. If you think about the way this technology can change the world. If you think about the consequences of a different party buying your technology. If you think about all that, what would you (want to) improve? In the technology? In context? In use?

PRIVACY



Now that you have thought hard about privacy and data protection, what improvements would you like to make?...

If you think about this technology invading someone's privacy or collecting personal data and if you think about the way this technology is compliant with prevailing law and mitigates dataprotection risks and concerns. If you think about all that, what improvements would you (want to) make? In the technology? In context? In use?...

INCLUSIVITY



Now that you have thought hard about the inclusivity of the technology, what improvements would you like to...

If you think about accessibility to this technology. If you think about built in biases or automatic decisions that may be biased. If you think about who is benefitting from this technology and the diversity of the team that creates the technology. If you think about all that, what improvements would you (want to) make? In the technology? In context? In...

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