

NAME: Large Scale 3D printing

DATE: December 1, 2025 9:37 AM

DESCRIPTION OF TECHNOLOGY
Large scale FGF prints suffer from being printed in an unregulated process. Due to differences in layer temperature the layer adhesion gets compromised (cold lower layer) or sagging occurs (hot lower layer). Both situations compromise the quality, mechanical and geometric properties of the print. To solve this the printing speed is controlled through a PI controller that receives temperature data from a thermal...



HUMAN VALUES



TRANSPARENCY



IMPACT ON SOCIETY



Have it integrate deeper with the printer instead of working as a standalone system.

STAKEHOLDERS



SUSTAINABILITY



HATEFUL AND CRIMINAL ACTORS



DATA



Accuracy can be improved by dynamically changing the position of the camera to get the best point of view. Some degree of data inaccuracy is accounted for and worked around it.

FUTURE



PRIVACY



INCLUSIVITY



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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?...

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?...

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?...

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?...

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?...

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?...

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 use?...

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?...

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?...

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? ...

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