IMPROVEMENTSCAN - CANVAS

Sea Slug Classification

NAME: Sea Slug Classification **DATE:** May 1, 2025 2:16 PM



DESCRIPTION OF TECHNOLOGY Detecting Sea Slugs using CNN models.

HUMAN VALUES

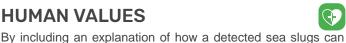
identified a sea slug.

identifying sea slugs.

be manually identified, users are encouraged to check

whether the model detected the correct sea slug. Furthermore, users could be informed of how the model

This also benefits users by staying in the habit of manually



TRANSPARENCY



Ensure the transparency is implemented through heatmaps and/or a confidence level that is shared with the end user.

IMPACT ON SOCIETY

population who may use it to cause harm.



Not applicable.

STAKEHOLDERS



SUSTAINABILITY



We see few ways to improve the sustainability of this technology.

HATEFUL AND CRIMINAL ACTORS



The owners of Blauwtipje may benefit in keeping the technology restricted to marine biologist experts.

to balance and improve marine life, as opposed to the general

The technology could only classify sea slugs above a certain confidence level, to reduce misclassifications. In addition to the classification, marine biologists may benefit in seeing which features the technology used to identify the sea slug.

DATA



We may give users the option to upload their own images, so the model can be improved over time.

FUTURE



Seeing as we are building the technology for an external partner, it is difficult to influence the use of the technology in the long term.

PRIVACY Not applicable.



INCLUSIVITY



During the development, we would like to keep bias based on image quality in mind, and consider whether this matches realistic scenarios.

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IMPROVEMENTSCAN - CANVAS - HELPSIDE

Sea Slug Classification

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DESCRIPTION OF TECHNOLOGYDetecting Sea Slugs using CNN models.

HUMAN VALUES



act of No

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?...

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

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

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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