Using 3D printing to create algae-based novel, environmentally-friendly 'living materials', from skin to bio-garments

[A] solution that can help save our environment and change the world is <u>3D printing</u>, which has been used in medicine and healthcare, in the classroom, for the aerospace industry, fashion industry, and more. Another solution? Living materials.

Living materials are engineered materials composed of living cells that form or assemble the material itself or modulate the functional performance of the material in some manner. The possibilities seem endless with these two technologies.

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Researchers at the University of Rochester and Delft University of Technology report they have used <u>3D printing to create a novel</u>, environmentally-friendly material made of algae.

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[One] application of the material would be photosynthetic skins, which could be used for skin grafts, [researcher Anne] Meyer added. "The oxygen generated would help to kick-start healing of the damaged area, or it might be able to carry out light-activated wound healing."

The materials can also be used for fashion which can help the negative environmental effects of the current textile industry. The bio-garments made from algae would be sustainable and biodegradable. They would also purify the air by removing carbon dioxide through photosynthesis and would not need to be washed, which would reduce water usage.

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