农业与资源环境信息工程专题

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➤ 前沿资讯

1．Scientists use AI to update data vegetation maps for improved wildfire forecasts（科学家利用人工智能更新植被测绘数据改善野火预报）

简介：In a recent study, scientists demonstrated the method using the 2020 East Troublesome Fire in Colorado, which burned through land that was mischaracterized in fuel inventories as being healthy forest. In fact the fire, which grew explosively, scorched a landscape that had recently been ravaged by pine beetles and windstorms, leaving significant swaths of dead and downed timber. The research team compared simulations of the fire generated by a state-of-the-art wildfire behavior model developed at NCAR using both the standard fuel inventory for the area and one that was updated with artificial intelligence (AI). The simulations that used the AI-updated fuels did a significantly better job of predicting the area burned by the fire, which ultimately grew to more than 190,000 acres of land on both sides of the continental divide. "One of our main challenges in wildfire modeling has been to get accurate input, including fuel data," said NCAR scientist and lead author Amy DeCastro. "In this study, we show that the combined use of machine learning and satellite imagery provides a viable solution." The research was funded by the U.S. National Science Foundation, which is NCAR's sponsor. The modeling simulations were run at the NCAR-Wyoming Supercomputing Center on the Cheyenne system.

来源：ScienceDaily

发布日期：2022-05-31

全文链接：http://agri.ckcest.cn/file1/M00/03/32/CsgkOYbvDUmAPGYvAAJ_tg_GU9I641.pdf

2．Bringing the benefits of digital agriculture to all: FAO joins the Digital Public Goods Alliance（让数字农业惠及大众：粮农组织加入数字公共产品联盟（DPGA））

简介：联合国粮农组织正式成为数字公共产品联盟的成员。这显示了粮农组织致力于发展和倡导数字公共产品以发展可持续农业粮食体系、实现可持续发展目标（SDGs）的决心。数字公共产品联盟（DPGA）是一项由多个利益相关方发起的倡议，旨在通过促进数字公共产品的发现、开发、使用和投资，加快在低收入和中等收入国家实现可持续发展目标。数字公共产品（DPG）是指有助于实现可持续发展目标的开源软件、开放数据、开放人工智能（AI）模型、开放标准和开放内容。粮农组织首席经济学家马克西莫·托雷罗表示："加入数字公共产品联盟标志着粮农组织释放数字农业潜力的努力又前进了一步。通过让更多人获得可负担的数字技术、数字素养和数字公共产品，粮农组织致力于不断提高包容性并缩小不同国家和地区之间的数字鸿沟。"

来源：FAO

发布日期：2022-05-30

全文链接：http://agri.ckcest.cn/file1/M00/10/04/CsgkOGKYWjOAMOBSAAMq7mm_q5A660.pdf

3．Satellite monitoring of biodiversity moves within reach（利用卫星检测生物多样性）

简介：Internationally comparable data on biodiversity is needed to protect threatened ecosystems,

restore destroyed habitats and counteract the negative effects of global biodiversity loss. Current biodiversity monitoring, however, is labor-intensive and costly. In addition, many places around the world are difficult to access. Researchers have now shown that plant communities can be reliably monitored using imaging spectroscopy, which in the future will be possible via satellite. This paves the way for near real-time global biodiversity monitoring.

来源：ScienceDaily

发布日期：2022-05-19

全文链接：http://agri.ckcest.cn/file1/M00/10/04/CsgkOGKYXUOAGMP1AAGgQ-GwwOg178.pdf

科技报告

1．FAO Road map for digital cooperation（FAO数字合作路线图）

简介：The world is shifting from analog to digital faster than ever before, further exposing us to the vast promise and peril of new technologies. While the digital era has brought society many incredible benefits, we also face many challenges such as growing digital divides, cyber threats, and human rights violations online. This report lays out a roadmap in which all stakeholders play a role in advancing a safer, more equitable digital world, one which will lead to a brighter and more prosperous future for all.

来源：FAO

发布日期：2022-06

全文链接：http://agri.ckcest.cn/file1/M00/03/32/CsgkOYbvC_OAQWWYAAXQ_7_FDiQ454.pdf

2．FAO Strategic Framework 2022-31（FAO战略框架2022-2031）

简介：Since 2010 all of FAO's work is guided by a Strategic Framework prepared for a period of ten to fifteen years, reviewed every four years. FAO Strategic Framework 2022-2031 was developed in the context of major global and regional challenges in the areas of FAO's mandate, including the COVID-19 pandemic. It was developed through an inclusive, transparent process involving extensive internal and external consultations, Governing Body meetings and informal consultations. It was endorsed at the 42nd session of the FAO Conference on 18 June 2021.The four betters and leaving no one behindFAO Strategic Framework 2022-31 seeks to support the 2030 Agenda through the transformation to MORE efficient, inclusive, resilient and sustainable agri-food systems for better production, better nutrition, a better environment, and a better life, leaving no one behind.

来源：FAO

发布日期：2021-12

全文链接：http://agri.ckcest.cn/file1/M00/10/04/CsgkOGKYW_qAB6f_ABYaRd4NZqU313.pdf