PRESS RELEASE

Big Data for Sustainability

Web intelligence tools for the United Nations Environment Programme developed by MODUL University Vienna to track environmental communication

Vienna, Nairobi - 18 May 2016: With the UNEP Live web portal, the United Nations Environment Programme has created a unique globally accessible source of up-to-the-minute, integrated information about the environment. From biomass in forests to particulate pollution and storm fatalities – the portal provides access to over 300 statistical records for 193 countries.

A new feature of this state-of-the-art information hub is the evaluation of global online communication: environment-related documents from social media and other online sources – over 10 million per month – can be analysed using the latest Web intelligence technology from MODUL University Vienna, Austria. This enables real-time identification, evaluation and visualisation of trends in sustainability communication.

Protected natural areas in Latin America and the Caribbean have increased by six percent since 2005, and the annual cost of storm damage in Europe averages 13 billion euros. These and numerous other data and knowledge assets can be accessed on the United Nations Environment Programme‘s UNEP Live knowledge platform. In addition, users can obtain real-time information on current trends in air quality, biodiversity, water, climate change amongst other topics. This highly innovative feature for the analysis of environmental communication from all over the world has now been added to UNEP Live. It was designed and implemented by MODUL University Vienna’s Department of New Media Technology.

Essential Communication

This web intelligence feature on UNEP Live will be presented to government and other major groups and stakeholders at the second United Nations Environment Assembly (UNEA), in Nairobi from 23 to 27 May. Prof. Jacqueline McGlade, UNEP Chief Scientist and Director of the Division of Early Warning and Assessment, explains the benefits of the Web intelligence feature: “The visual dashboard enables decision-makers and interested parties from all countries to access real-time information about the public discourse on sustainable development goals. Emerging opinion trends and their specific contexts can be tracked directly using the portal."

The Head of the Department of New Media Technology, Prof. Arno Scharl, coordinated the development and implementation of the technologies involved. He describes their application as follows: “The analysis can be carried out individually for each of the 193 UN Member States. In the case of flood events in Europe, for example, it is possible to establish whether public debates associate these events with a changing climate. To reveal the views of stakeholders in real-time and across countries, we developed special multilingual text mining methods. These methods identify opinion leaders and their spheres of influence, classify collected documents by topic, and assign geographic coordinates automatically."

The integration of Web Intelligence technology into the United Nations’ public web portal enables the comparison of public opinion trends with published data resources – for example, scientific publications, official statistics, or maps with the geographic distribution of emissions. Users can thus assess directly whether the debate surrounding an environmental issue acknowledges established

facts. Technologies to capture, align, translate and analyse data from multiple online sources are fundamental to this feature of the platform. MODUL University Vienna provides this expertise in the form of the award-winning webLyzard platform developed by the Department of New Media Technology, which also is able to differentiate facts from individual, emotionally driven expressions of opinion.

Search & See

An interactive dashboard facilitates the tracking of trends, and presents the results of full-text searches in the form of impressive visualisations. For example, word trees are used to demonstrate the way in which concepts such as "air quality" are being discussed globally. To pinpoint the source and propagation of opinion trends, interactive maps show the geographic origin together with the location referenced in online publications, or relate observable trends to particular persons or organisations.

Prof. McGlade summarises the importance of the new platform as follows: "Together with MODUL University Vienna, we have pioneered work in the area of Web Intelligence to align global and regional environmental indicators with global communication flows. The platform will provide support to decision-makers all over the world in their pursuit of sustainable development goals."

Further information

- UNEP Live Plattform – http://uneplive.unep.org
- UNEP Live Web Intelligence – http://uneplive.unep.org/global/index#web_intelligence
- UNEA Summit (23-27 May 2016) – http://web.unep.org/unea

Images available at:

- http://www.modul.ac.at/nmt/media-resources

About MODUL University Vienna (Status May 2016)
MODUL University Vienna is an international private university in Austria and is owned by the Vienna Chamber of Commerce. It offers study programs (BBA, BSc, MSc, MBA and PhD programs) in the areas of international business and management, new media technology, public governance & administration and sustainable development, as well as tourism and hospitality management (www.modul.ac.at/study-programs). The study programs meet strict accreditation guidelines and, due to their international focus, are conducted in English. The university campus is located at Kahlenberg, in Vienna's 19th district. The research of the Institute for New Media Technology (www.modul.ac.at/nmt) focuses on the impact of online media and social networks on stakeholder communication and public opinion-formation processes, and on how such processes can be recorded, analyzed and visualized using semantic technologies. The webLyzard platform (www.weblyzard.com), which forms the basis of the UNEP Live Web Intelligence Application, is currently being further developed within the context of two major EU research projects in the 7th Framework Programme, DecarboNet (www.decarbonet.eu) and ASAP (www.asap-fp7.eu).

About the United Nations Environment Programme
UNEP is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment. UNEP work encompasses:

- Assessing global, regional and national environmental conditions and trends
- Developing international and national environmental instruments
- Strengthening institutions for the wise management of the environment

UNEP Live is UNEP Live aims to support assessment processes through the provision of substantiated, contextualised knowledge about the environment by developing richer sets of data and knowledge flows and bringing together diverse communities of practice.
The aim of UNEP Live is a knowledge management platform that facilitates the exchange and sharing of latest data, information, assessments and knowledge amongst member countries, research networks, communities of practice, indigenous peoples and society, in order to keep the environment and emerging issues under review.

Contact:
Univ.-Prof. DDr. Arno Scharl
MODUL University Vienna
Department of New Media Technology
Am Kahlenberg 1
1190 Vienna, Austria
T +43 / 1 / 320 3555-500
E scharl@modul.ac.at
W www.modul.ac.at/nmt

Neeyati Patel
Project Manager, UNEP Live
United Nations Environment Programme
UN Avenue, Gigiri
uneplive.unep.org