

Are your RT datasets updating? If not,
contact: sos.support@noaa.gov

SOS Education Forum



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

March 8, 2023





Agenda

Reminders from SOS Team

Museum of Life and Science - Imagining Speculative Design for User Engagement

Q/A





SOS Education Forum

This group is...

- Inclusive, open to all of the SOS Network, including presenting.
- Flexible, this forum is open to discuss anything and everything having to do with education and engagement.
- Designed to help you utilize your SOS system, understand NOAA's resources, and the SOS data catalog.





Reminders from SOS Team in Boulder

New Datasets

SOS Transitioned:

All servers and technology have been moved to the cloud

ACTION: Please check your RT datasets, be sure they are up to date, especially if you have firewall issues at your site.

Contact sos.support@noaa.gov if you have any issues or questions

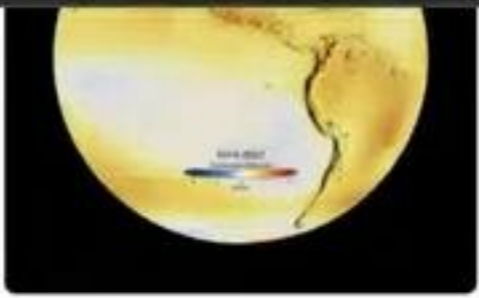
Social Media posts:

Facebook & Instagram - @scienceonasphere

SOS Ed Forum Topics:

We are always open to your ideas and suggestions for topics and presentations or needed trainings. Email Hilary.Peddicord@noaa.gov





Tsunami: Asteroid Impact - 66 Million Years Ago

SOS

Added on January 14, 2023

Add to Playlist

Temperature Anomaly: Yearly (NOAA) - 1880 - Present

SOS Explorer

Added on October 20, 2022

Add to Playlist

Sea Ice Extent: September Only

SOS Explorer

Added on October 20, 2022

Add to Playlist

Platform

- Select a platform -

Is Realtime

Has Audio Description

Is Narrated Movie

Keyword

- Select a keyword -

Theme

- Select a theme -

Year

Allowed years 500-2100.

Next Generation Science Standards

Minimum Grade Level

- Select a grade level -

Maximum Grade Level

- Select a grade level -

Cross-cutting Concepts

- Select a concept -

Disciplinary Core Ideas

Press **Esc** to exit full screen

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Presenting today

Museum of Life and Science - Imagining Speculative Design for User Engagement

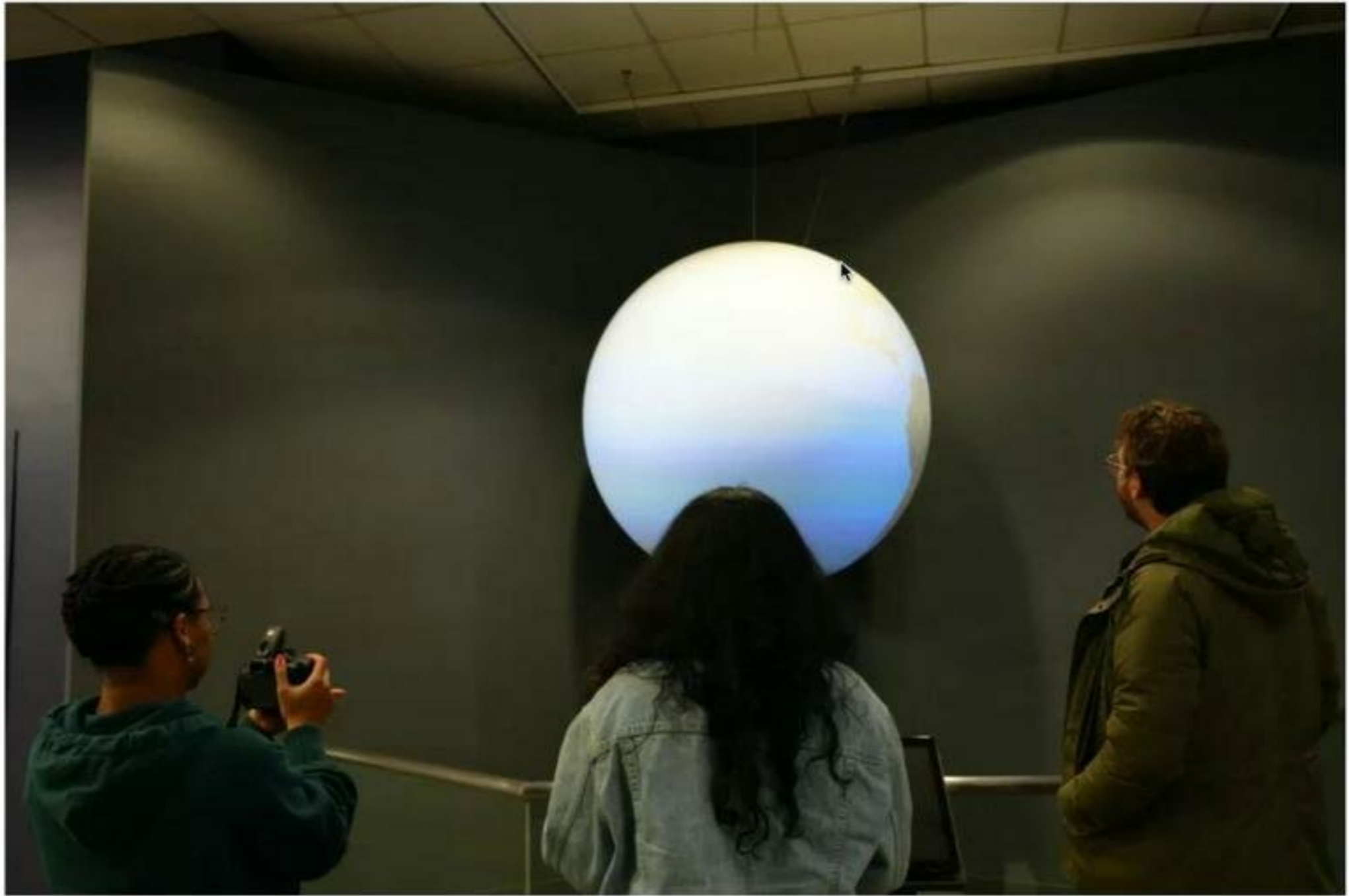
Deborah Littlejohn, PhD, is an Associate Professor of Graphic & Experience Design in the College of Design at North Carolina State University. Her research investigates design's role in transforming public understandings of science through immersive technologies, user interfaces, data visualization design strategies and participatory co-production methodologies.

Cole Finney works with Summer Camp at the Museum of Life and Science (Durham, NC), and previously worked at Science Central (Fort Wayne, IN) and the Perot Museum (Dallas, TX).

Max Cawley is Director of Climate Research and Engagement at the Museum of Life and Science.







GD 501: Masters GD Studio

Syllabus

Objective

This studio explores relationships between data visualization, information presentation, interface design, and user receptivity in plausible near-future scenarios. Coursework concerns the graphic and experience design that follows data management and analysis, not the data management or analysis themselves. Students develop strategies for managing design investigations in the absence of presently available and testable hardware. Majors only. No prerequisite or corequisite.

The course will:

- Explore new trends in data visualization related to issues such as big data, internet of things, gestural interfaces, conversational interfaces, and mixed reality.
- Introduce the conceptual framework as a means to structure speculative design investigations.
- Refine students' form-making, presentation, and collaboration capabilities.

Learning Outcomes

Students will be able to:

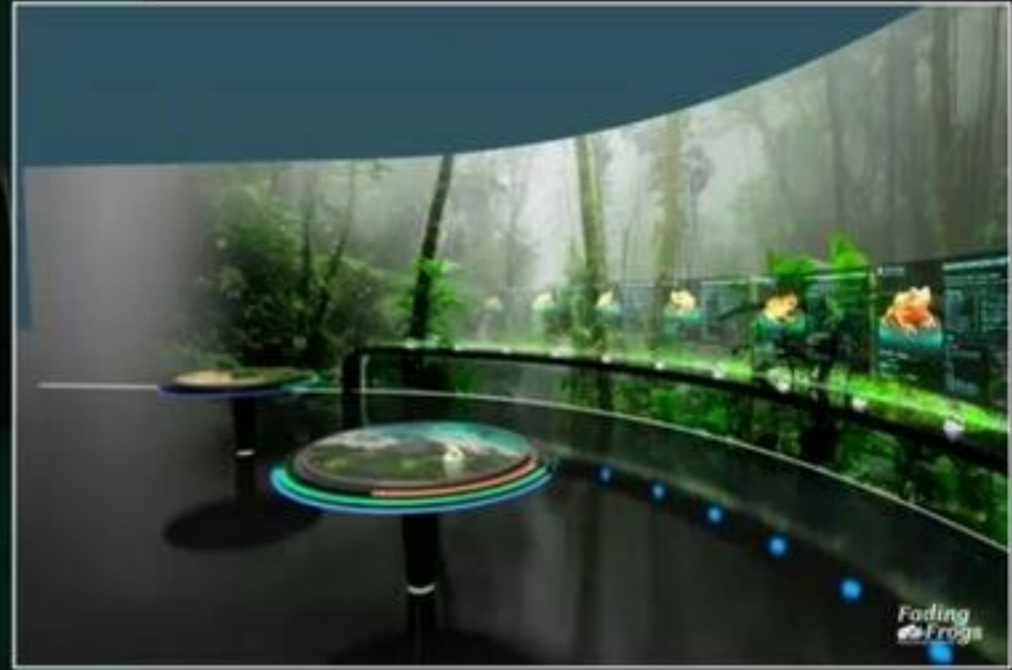
- Analyze data visualization trends using mapping and argumentation techniques.
- Propose visualization & interface design configurations that address the identified trends.
- Compare speculative design storyboards according to class-defined conceptual frameworks that relate topics to knowledge bases from appropriate fields.
- Interpret plausible future scenarios according to multiple personas.

Project 3: Visualizing Science

Overview

The aim of this project is to explore new ways of visually communicating abstract scientific concepts & data through the design of high fidelity prototypes for interactive displays and user experiences in a science museum context. Through a series of visual studies, we will imagine how to bring our speculative designs to life, looking both at issues in creating representations of change-in-system states and designing compelling, dynamic representations of user interaction scenarios to tell powerful context-of-use stories that “suspend disbelief”.

FADING FROGS



FADING FROGS

Central UI

Frog interaction area

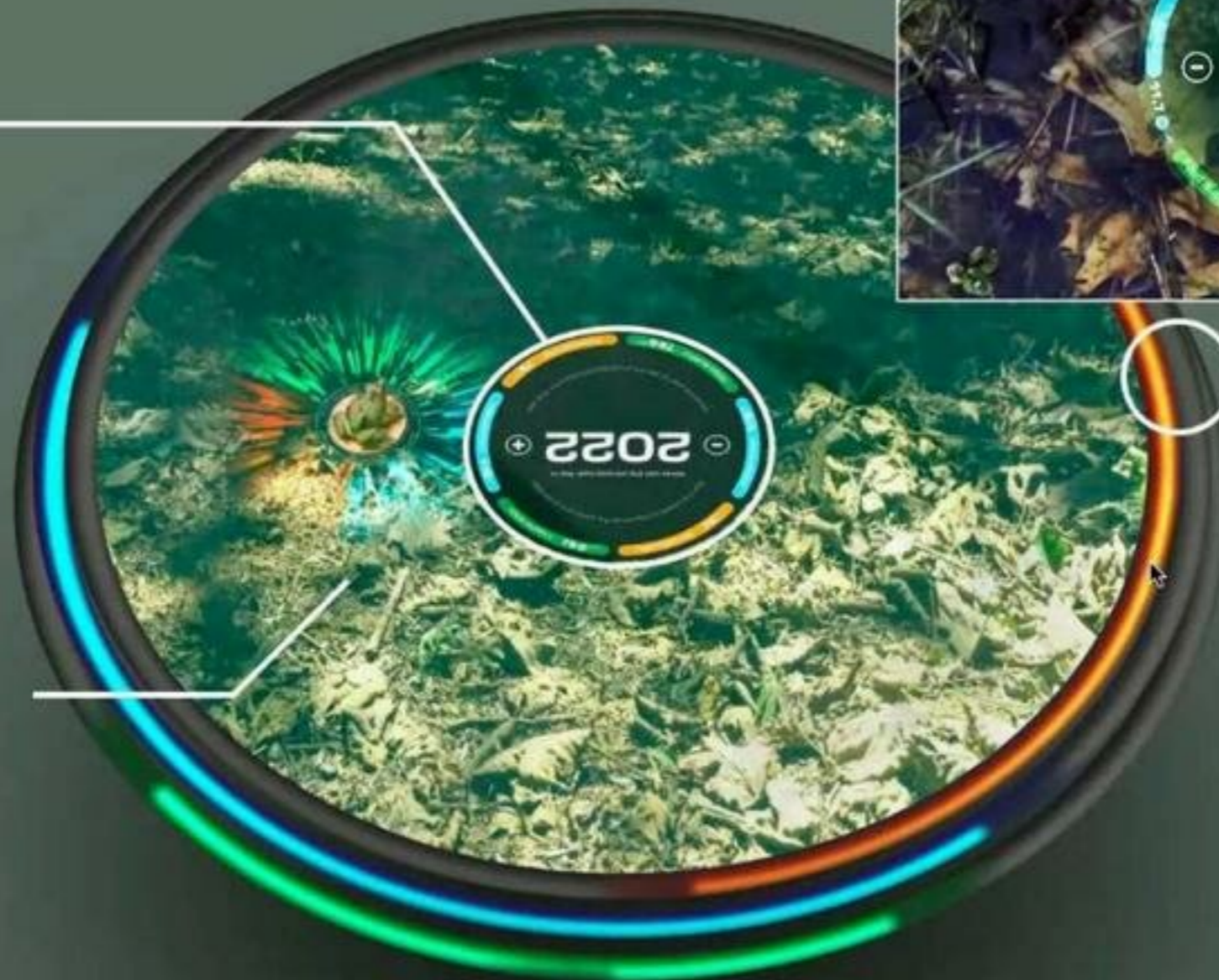
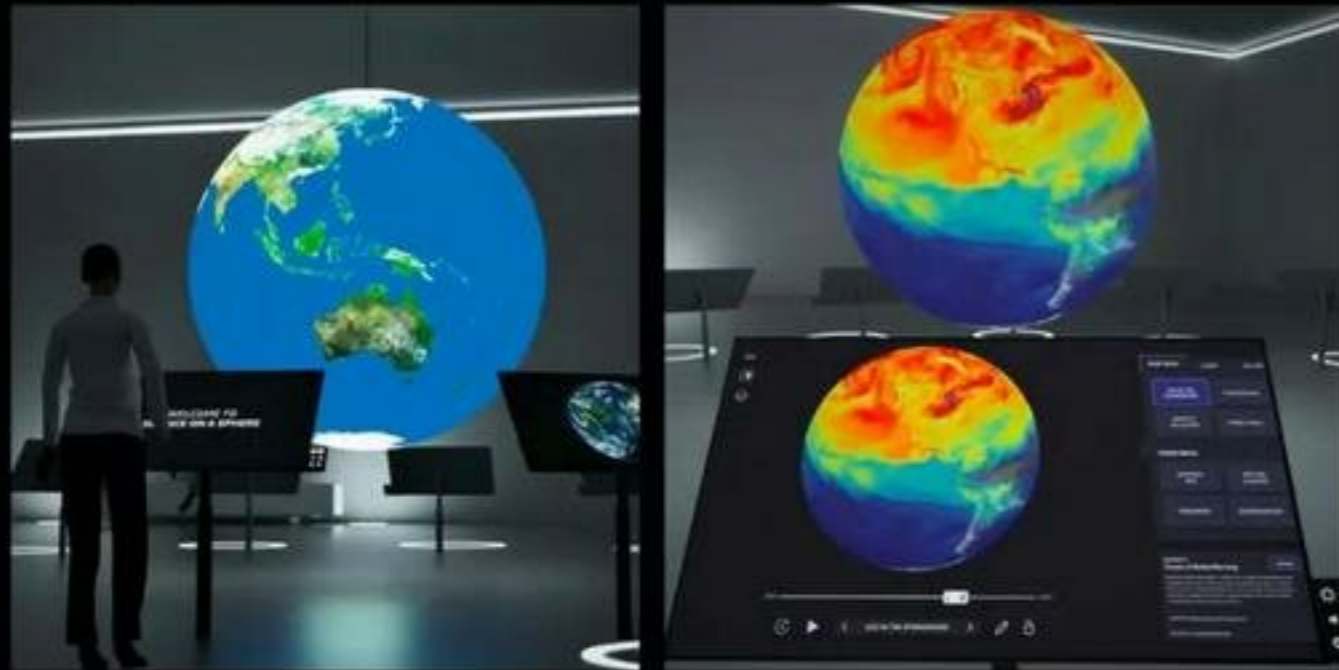


Table rings

THE TEACHING MACHINE

This project explores the potential of Science On a Sphere (SOS) to be utilized as an immersive educational tool. The project addresses spatial and UI/UX factors, and presents both practical and speculative improvements and solutions.



WELCOME TO SCIENCE ON A SPHERE

Nice to meet you Deb!
Please pick a mode you would like to explore.

TEACHER

This is a robust resource rich format available for use by teachers in order to support their lesson plans. It includes comprehensive history that also contains lesson and engages with a variety of climate change topics.

EXPLORATORY

These explore how climate change is affecting different parts of the globe or how human activities impact climate change. Includes interactive maps, charts, and data to help students understand the world today, past or future, oceans, forests, and more.

GUIDED

This mode is best for those who want to learn by reading. It includes detailed text, images, and audio to help students understand the science behind climate change, including how it's caused, how it's changing, and what we can do about it.

Hi Deb, would you like to preselect some topics for your students?

CLIMATE CHANGE

TEMPERATURE

SEA LEVEL RISE

MELTING GLACIERS

MELTING OF SNOW AND ICE

CO2 IN THE ATMOSPHERE

DROUGHT PATTERNS

WEATHER SYSTEMS

TORNADOES

FLOODS

HURRICANES

BLIZZARDS

CYCLONES

CLOUDS

CAUSES OF GLOBAL WARMING

DEFORESTATION

FOSSIL FUELS

AGRICULTURE

TRANSPORT

WASTE & POLLUTION

INDUSTRY

SKIP

CONFIRM

GLOOMY FOOTPRINTS

