




Find What You Are Looking For: Optimizing Search and Filtering in Apps

Matt Payne, Beth Romero, and Ryan Libed

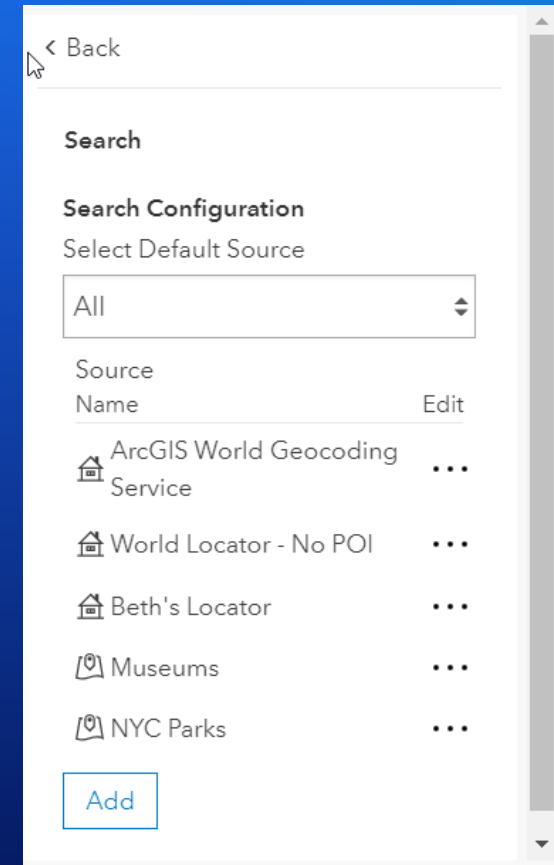
2021 ESRI
DEVELOPER SUMMIT

Agenda

- **Configuring Search in apps**
 - Refining search
 - Enabling feature search
 - **Filtering**
 - **Using 4.x JavaScript API to configure Search**
- 

What are you searching for?

- **Best Practices**
 - Limit locators
 - Use locator views
 - Enable feature search



Interactivity
Configure the tools needed for an effective experience of exploring/analyzing your map

Search open at start ☐

Search Configuration
Configure search source settings

Historic Plaques ✕

Layer Name

Placeholder Text

Search Fields

☒ lead_subject_name

Display Field

Zoom Scale: **None**

Maximum Suggestions

Last save: 2021-02-11, 4:57 p.m.

Visiting Irish History

Historic Plaques

- man
- woman
- group
- place

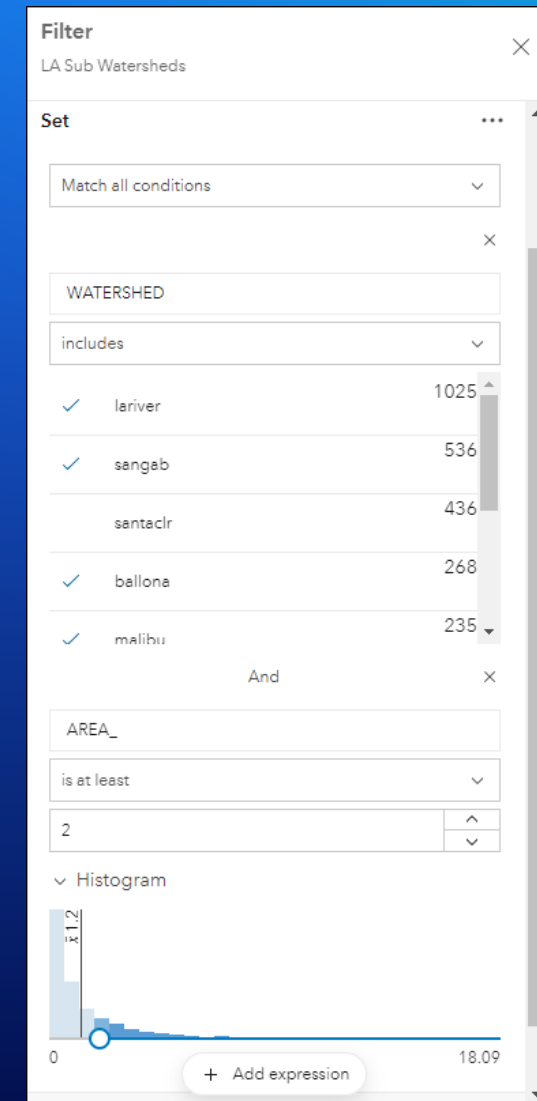
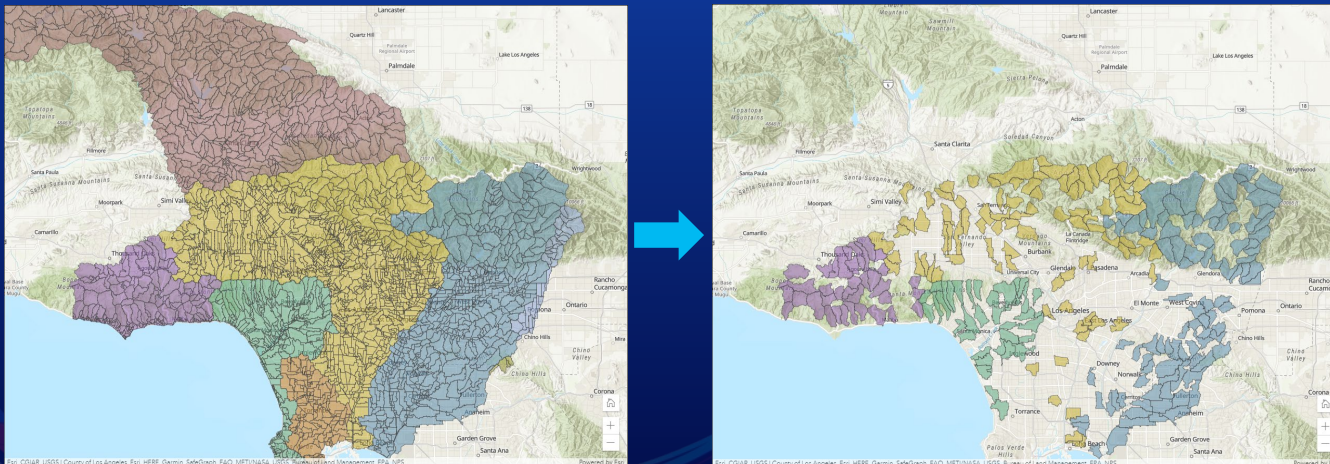
Configure the Search widget with the locators available in your organization or by adding a custom locator by URL. The search widget can also utilize ... More

Configure Search in Apps

Beth Romero

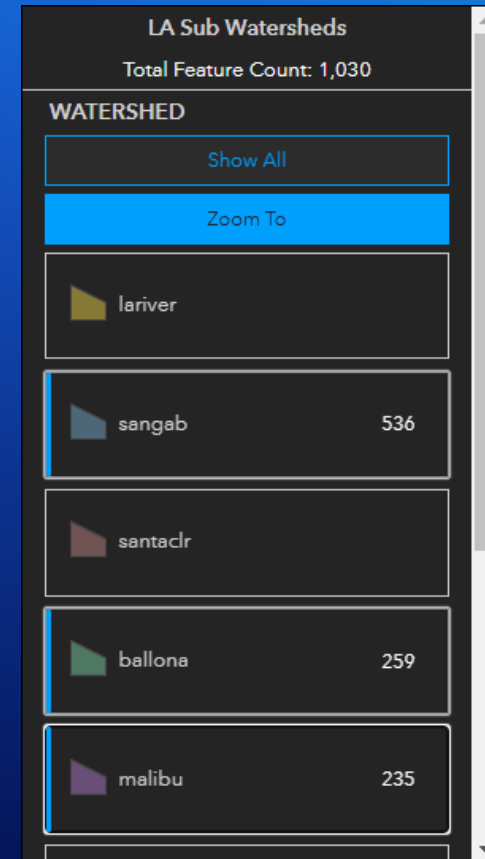
Leveraging attribute filters in apps

- A filter presents a focused view of a feature layer in a map
- Reveal what's most important in your app
- Let your audience explore the data themselves
 - Go beyond turning layers on and off
- Increase performance



Leveraging attribute filters in apps

- Demo
 - Set up an attribute filter in the web map
 - Minimalist configurable app
 - Filtering experience using Interactive Legend
 - Configure Interactive Legend app and use legend to filter data



Matt Payne

Matt Payne



Let's dive into the code!

Configure the search widget using the 4.x ArcGIS API for JavaScript

Search Configuration

- The ArcGIS API for JavaScript provides great documentation on how to configure the search widget.
- Example properties to configure
 - view
 - maxResults
 - maxSuggestions
 - sources
 - portal
 - locationEnabled

```
const searchWidget = new Search({  
  view,  
  sources: [layerSearchSource]  
});  
  
view.ui.add(searchWidget, "top-right");
```

SearchSource: LocatorSearchSource & LayerSearchSource

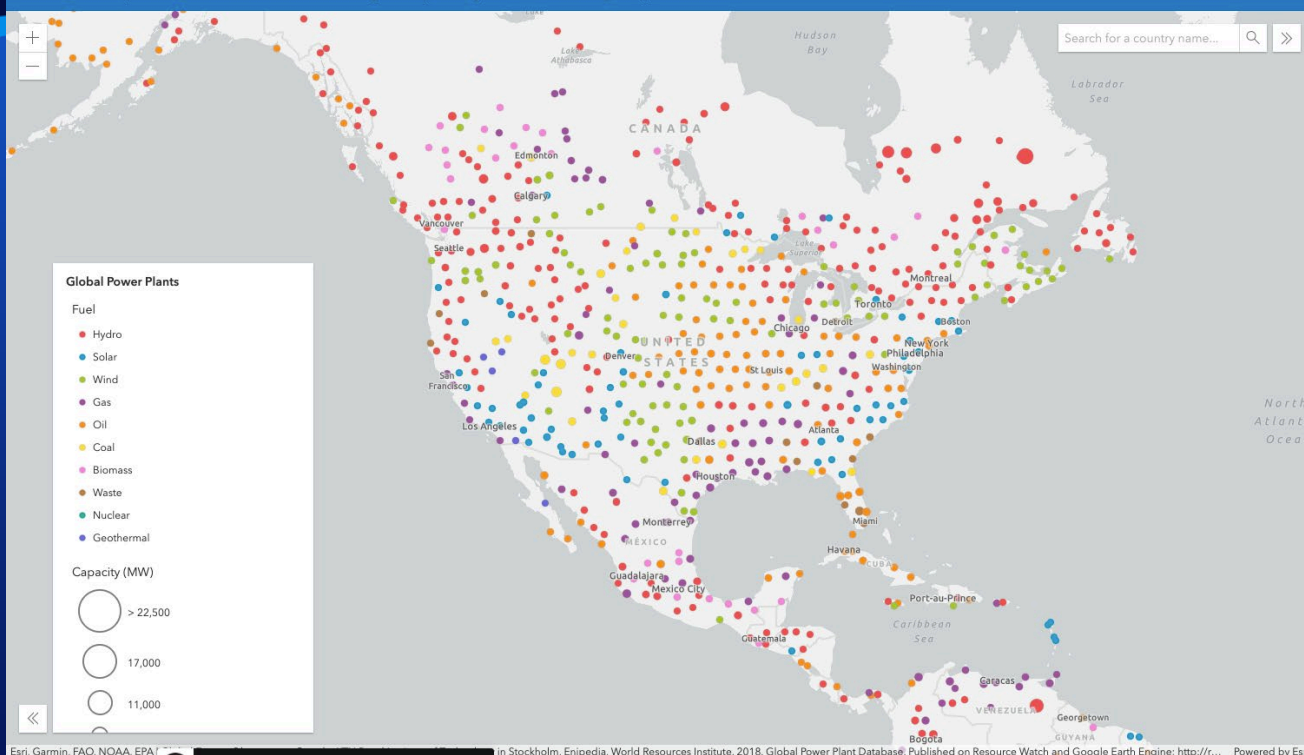
- SearchSource is class from the JS API which you can use to pass as an array of multiple sources into the Search widget's 'sources' property.
- LocatorSearchSource & LayerSearchSource extend the SearchSource class
 - LocatorSearchSource
 - Defines a search source pointing to a Locator that may be used to geocode locations
 - LayerSearchSource
 - Defines a layer-based search source whose features may be searched

Implementing a filter in a LayerSearchSource

- Configure your LayerSearchSource even further to return results that are more specific.
- Use the filter property and pass in a where clause.
- Sample web map application

```
const layerSearchSource = new LayerSearchSource({  
  layer,  
  placeholder: "Search for a country name...",  
  displayField: "name",  
  searchFields: ["country", "country_long"],  
  name: layer.title,  
  maxResults: 6,  
  maxSuggestions: 6,  
  filter: {  
    where: "fuel1 = 'Hydro'"  
  }  
});
```


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Configure Search

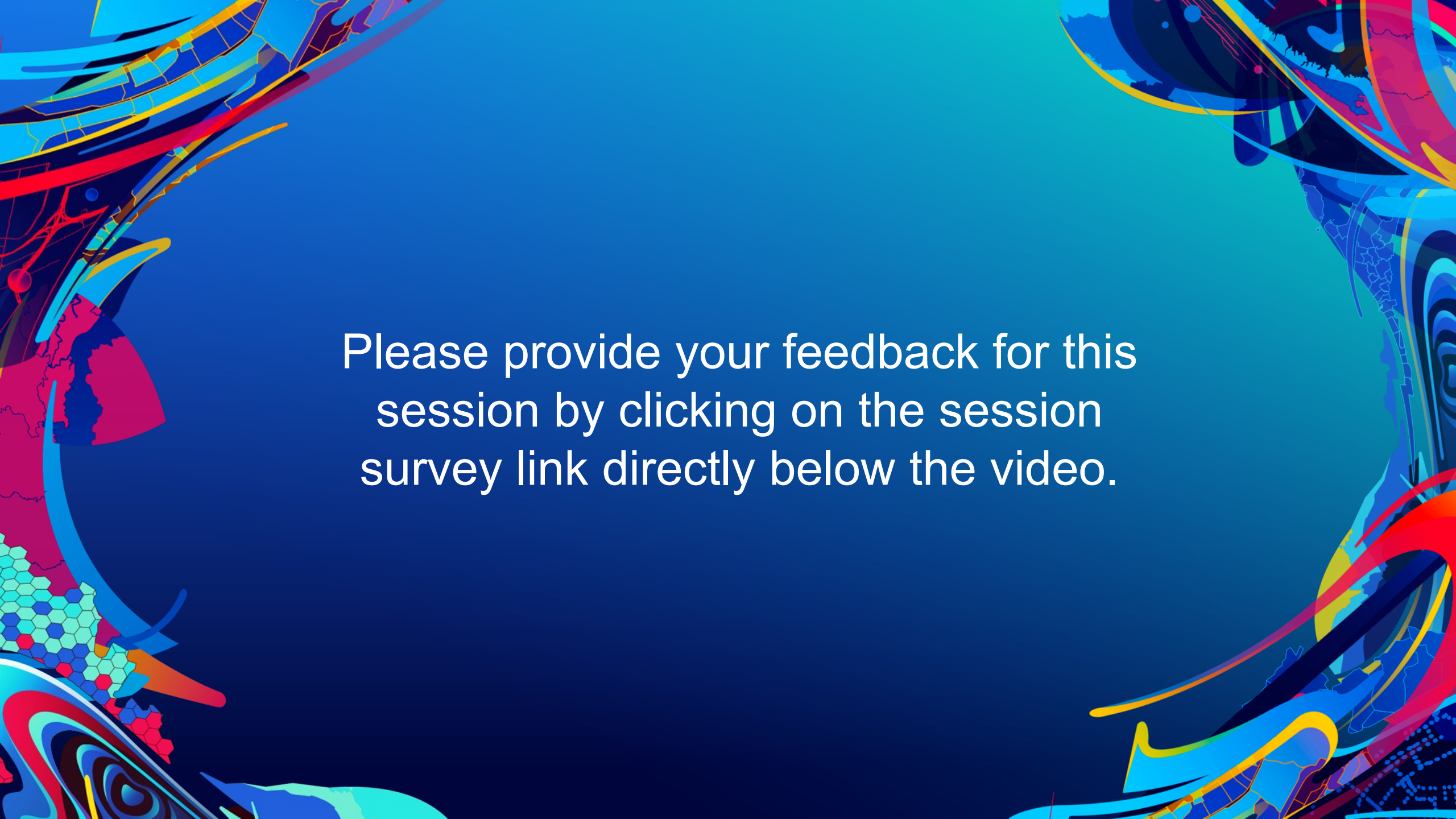
Ryan Libed

<https://codepen.io/rslibed/pen/yLNbggqP>



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The background is a vibrant, abstract composition. It features a central area of solid blue and teal. The left and right sides are framed by complex, colorful patterns. On the left, there are swirling shapes in red, yellow, and blue, along with a section of a hexagonal grid in shades of green and blue. On the right, there are more swirling patterns in blue, red, and yellow, with some areas resembling a grid or circuitry. The overall effect is dynamic and modern.

Please provide your feedback for this session by clicking on the session survey link directly below the video.