

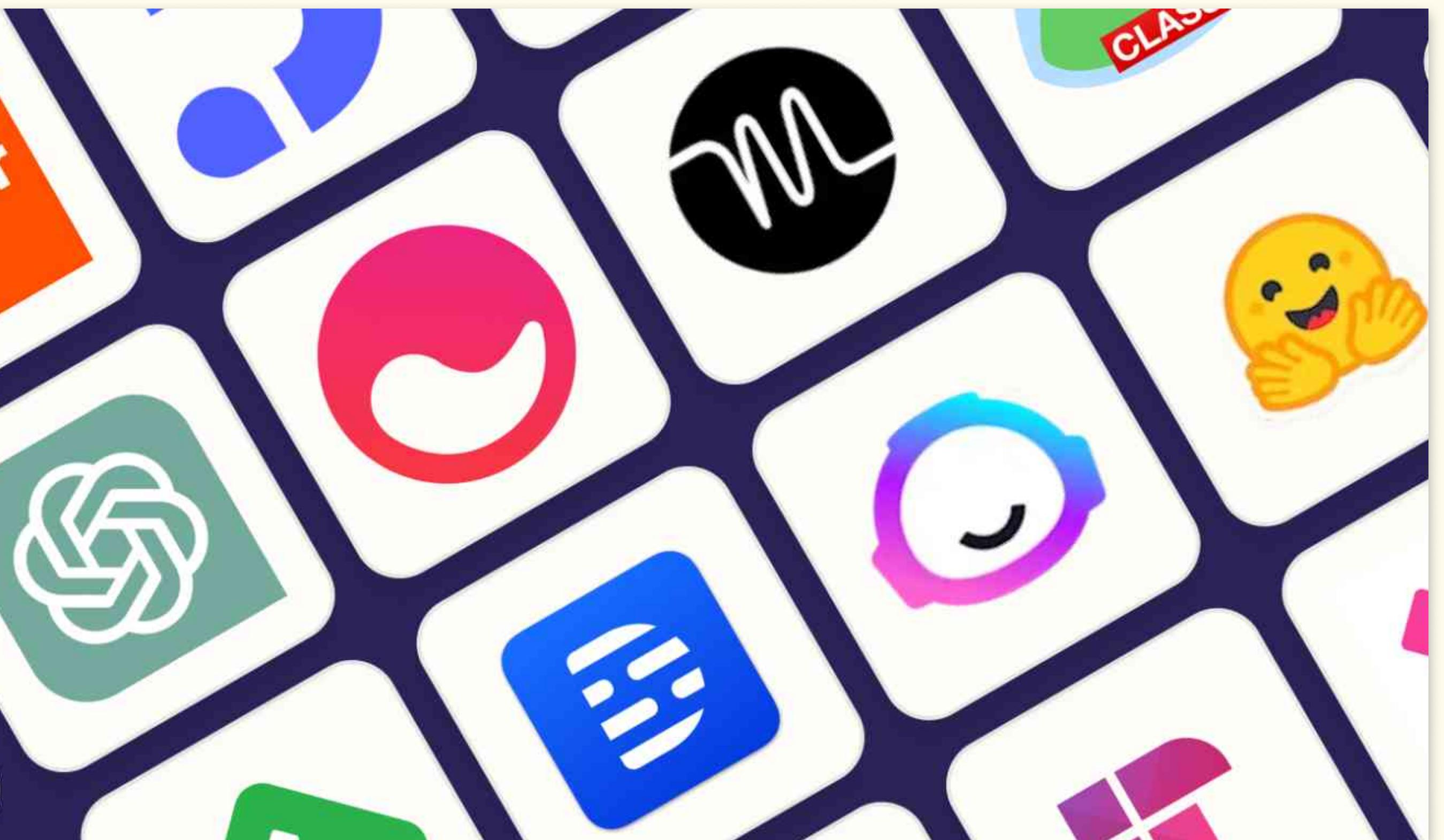
AI tools visualizer

Jeanne Lallemand

Context

A difficulty to understand what exist and find the right tool

A rising number of AI tools and possible applications



Data used

1012 tools

29 categories

Each has 1 category

Some have 1 subcategory

Short description

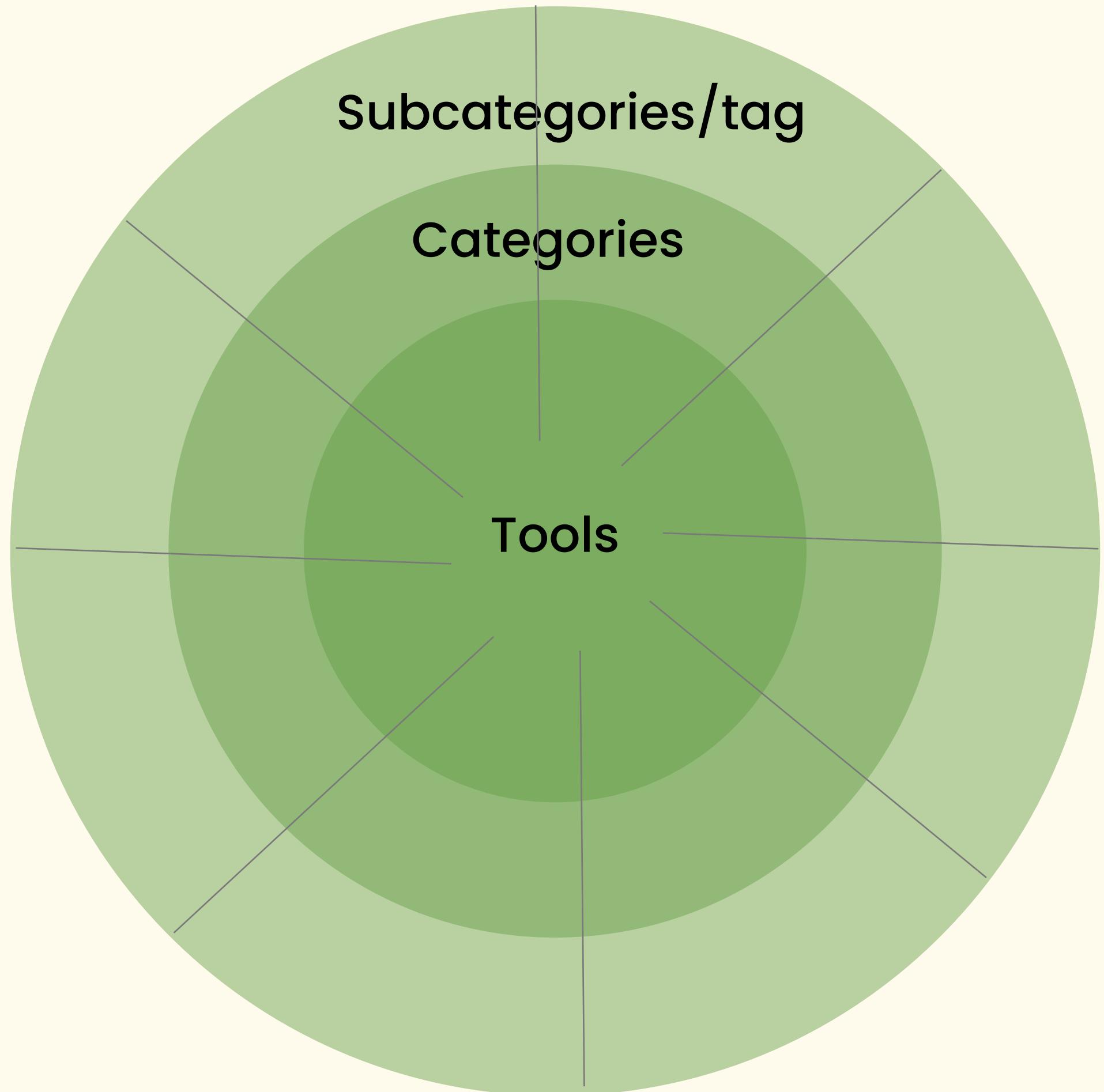
Number of votes

Link to the page

tool	tool	tool_description	category	upvotes	tags
https://uploads.ssgt.ai/tool/Codeium	Codeium	Helps developers understand, modify, and test unfamiliar code	Generative Code	1987	
https://uploads.ssgt.ai/tool/LeiaPix	LeiaPix	Upload an image and turn it into a 3D animation	Image Improvement	1779	Generative Video
https://uploads.ssgt.ai/tool/GPT-3-Playground-(OpenAI)	GPT-3 Playground (OpenAI)	Free AI writing tool - Let the AI generate any text you can imagine	Copywriting	1433	Research
https://uploads.ssgt.ai/tool/BlueWillow	BlueWillow	AI-powered image generating tool in Discord	Generative Art	1230	Matt's Picks
https://uploads.ssgt.ai/tool/Character.AI	Character.AI	Have chat conversations with AI characters	Chat	954	For Fun
https://uploads.ssgt.ai/tool/Midjourney	Midjourney	Discord-based AI art tool	Generative Art	615	Matt's Picks
https://uploads.ssgt.ai/tool/Paraphrasing-Tool	Paraphrasing Tool	AI paraphrasing tool	Productivity	524	
https://uploads.ssgt.ai/tool/Voice.ai	Voice.ai	Change your voice to famous celebrities in real time	Voice Modulation	520	Matt's Picks
https://uploads.ssgt.ai/tool/Maze	Maze	Discord-based generative art platform	Generative Art	507	Matt's Picks
https://uploads.ssgt.ai/tool/teach	to teach	For teachers to create exercises and lessons for their students	Productivity	446	Research
https://uploads.ssgt.ai/tool/ChatGPT-(OpenAI)	ChatGPT (OpenAI)	Ask any question or prompt to AI - The tool most other writing	Chat	423	Copywriting
https://uploads.ssgt.ai/tool/InstantArt	InstantArt	AI art generator and search engine (with prompts)	Generative Art	375	Matt's Picks
https://uploads.ssgt.ai/tool/ChatGPT-for-Search-Engines	ChatGPT for Search Engines	Browser extension that adds ChatGPT to search engines	Chat	365	
https://uploads.ssgt.ai/tool/Verbatik	Verbatik	AI powered text to voice generation.	Text-To-Speech	356	
https://uploads.ssgt.ai/tool/PrayGen	PrayGen	A personalized prayers generation.	Self-Improvement	344	
https://uploads.ssgt.ai/tool/MidJourney-Prompt-Tool	MidJourney Prompt Tool	Helps users generate creative prompts by giving them ideas, s	Prompt Guides	323	Matt's Picks
https://uploads.ssgt.ai/tool/Ordinary-Prompts	Ordinary Prompts	Create ChatGPT prompts for everyone	Prompt Guides	315	
EmailMagic-AI">https://uploads.ssgt.ai/tool>EmailMagic AI	EmailMagic AI	Helps users write emails 10x faster	Productivity	311	
https://uploads.ssgt.ai/tool/GymGenie	GymGenie	Workout routines tailored to the user's fitness level, height, we	Self-Improvement	291	

Definition of the objectif

Representation of each tool according to its category and subcategory



Step 1: Hierarchization of the data

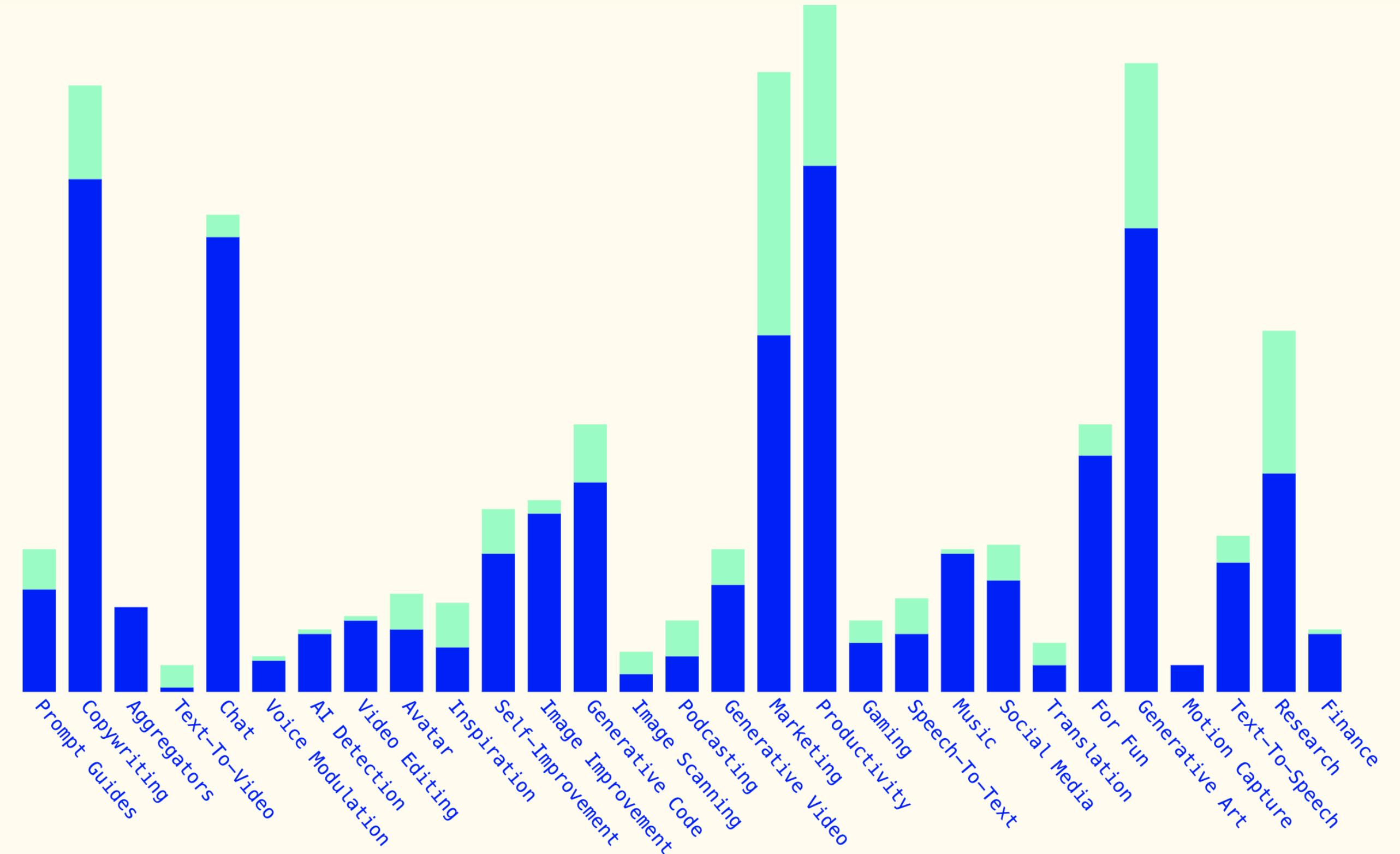
Organizing the tools by category and mapping it into a bar chart

```
var margin = 100
var categories = ['Prompt Guides', 'Copywriting', 'Aggregators', 'Text-To-Video', 'Chat',
var tags = ['', 'Marketing', 'Self-Improvement', 'Prompt Guides', 'Video Editing', 'Genera

var canvas = d3.select("body")
.append("svg")
.attr("width", widthBarChart)
.attr("height", height)
.style("background-color", "#FFFBEA")

categories.forEach((category, n) => {
  var nameCategory = data.filter(e => e.category === category)
  var lengthData = nameCategory.length
  var nameTags = data.filter(e => e.tags === category)
  var lengthTags = nameTags.length
  console.log(lengthData)

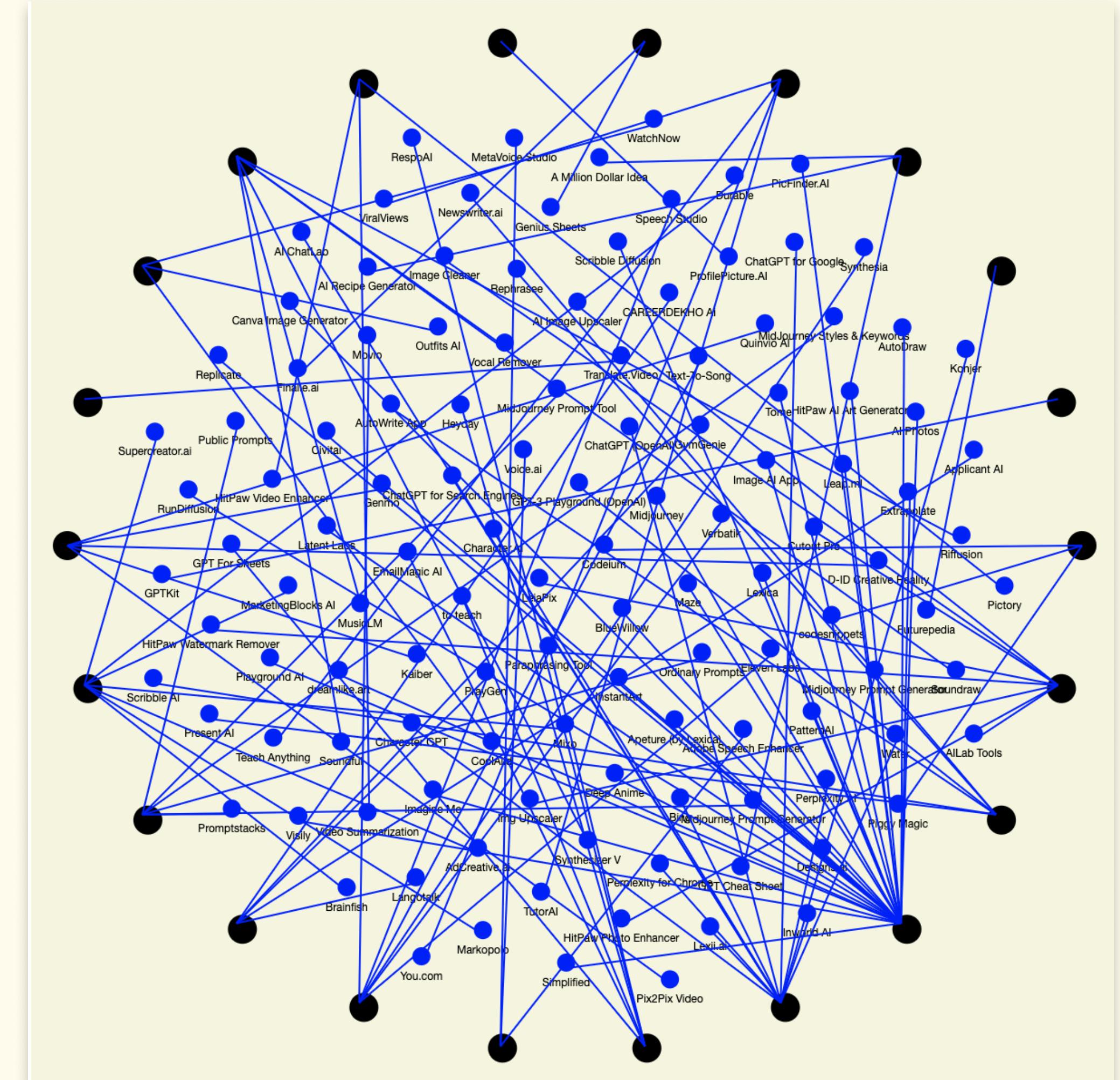
  var widthBar = ((widthBarChart - margin * 2) / categories.length) - 10
  //categories
  canvas.append("rect")
    .attr("class", "bar")
    .attr("x", margin + ((widthBarChart - margin * 2) / categories.length) * n)
    .attr("height", lengthData * 3.5)
    .attr("y", (height * 0.8) - lengthData * 3.5)
    .attr("width", widthBar)
    .attr("fill", "blue")
})
```



Step 2: Display of the elements and links

Force in the center and tools around, links
between the tool and the category

```
var simulation = d3.forceSimulation(combinedNodes)
  .force("charge", d3.forceManyBody().strength(3))
  .force("center", d3.forceCenter(width / 2, height / 2))
  .force("collision", d3.forceCollide().radius(7)) // Adjust collision force
  // .alphaDecay(0.01) // Adjust alpha decay
  .on('tick', ticked)
```



Step 3: Display of the categories in circle

Using a scale, translate and rotate

```
const numberOfCategory = toolCategory.length
const range = d3.range(0, 360, 360 / numberOfCategory)
var radius = 290;

u.selectAll("circle")
  .data(d => [d])
  .join("circle")
  .attr("class", d => d.isCategory ? "isCategory" : "tool")
  .attr("r", d => d.isCategory ? 5 : 5)
  .attr("cx", d => d.isCategory ? 0 : d.x)
  .attr("cy", d => d.isCategory ? 0 : d.y)
  .attr("transform", function (d) {
    if (d.isCategory) {
      var cateNumber = d.index - nodes.length;
      return "translate(" + width / 2 + "," + height / 2 + ")" +
        "rotate(" + range[cateNumber] + ")" +
        "translate(" + radius + ", 0)";
    }
  })
}
```



Step 4: Classification into bigger category

Using color to classify the category

```
var nodes = data.filter(d => d.tool);
console.log(nodes.length)

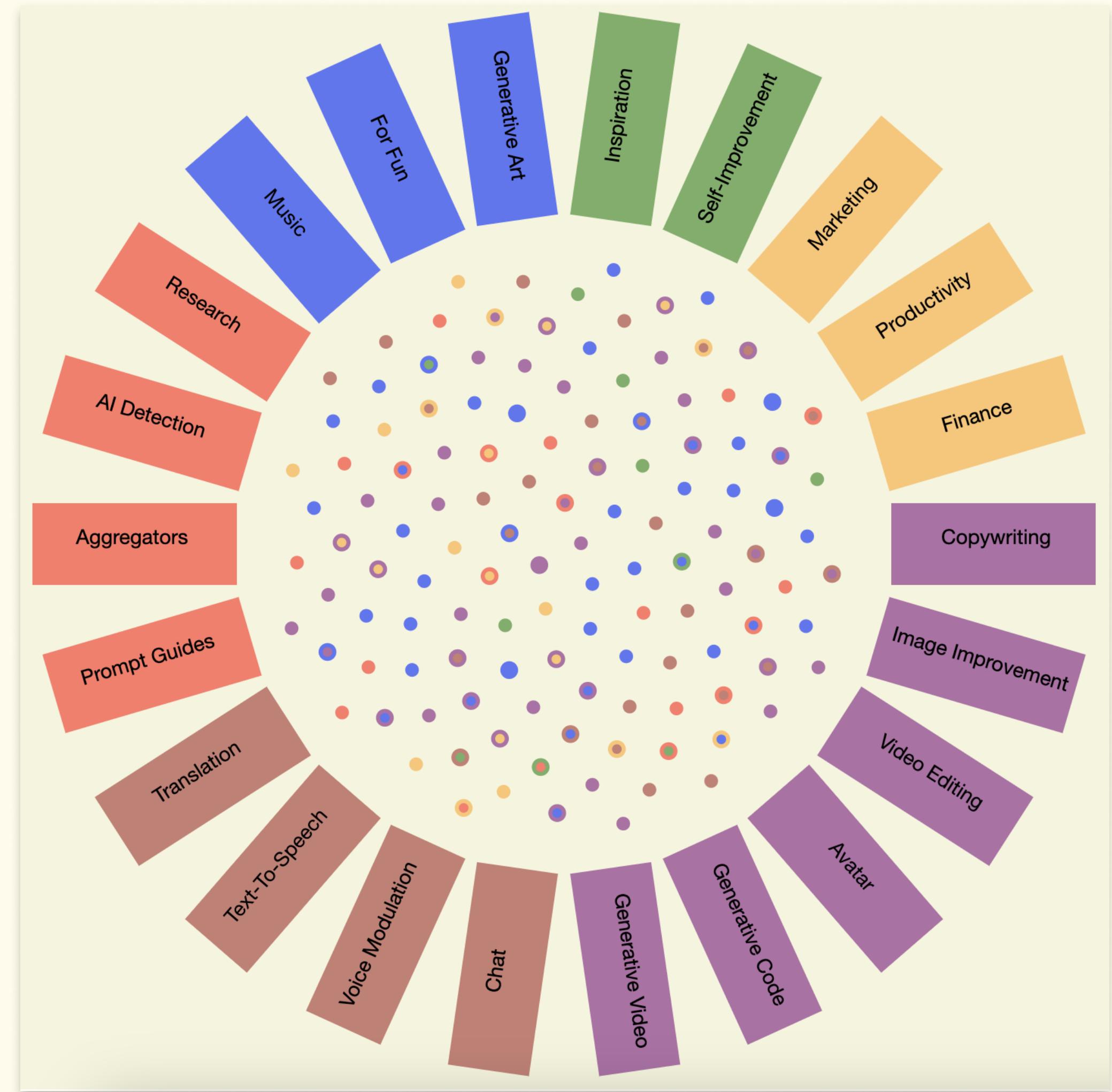
var toolCategory = d3.groups(nodes, function (d) {
  return d.category;
});

var desiredCategories = [
  { name: "Image Creation", subcategories: ["Avatar", "Motion Capture", "Text-To-Video", "Video
  { name: "Communication", subcategories: ["Chat", "Generative Code", "Text-To-Speech", "Speech-
  { name: "Information and Learning", subcategories: ["Prompt Guides", "Translation", "AI Detect
  { name: "Media Production", subcategories: ["Podcasting", "Voice Modulation", "Music", "Gaming
  { name: "Personal Development", subcategories: ["Inspiration", "Self-Improvement", "Social Med
  { name: "Business and Productivity", subcategories: ["Marketing", "Productivity", "Aggregators
];

var sortCategories = desiredCategories.flatMap(category => category.subcategories);

var customOrder = {};
sortCategories.forEach((category, index) => {
  customOrder[category] = index;
});

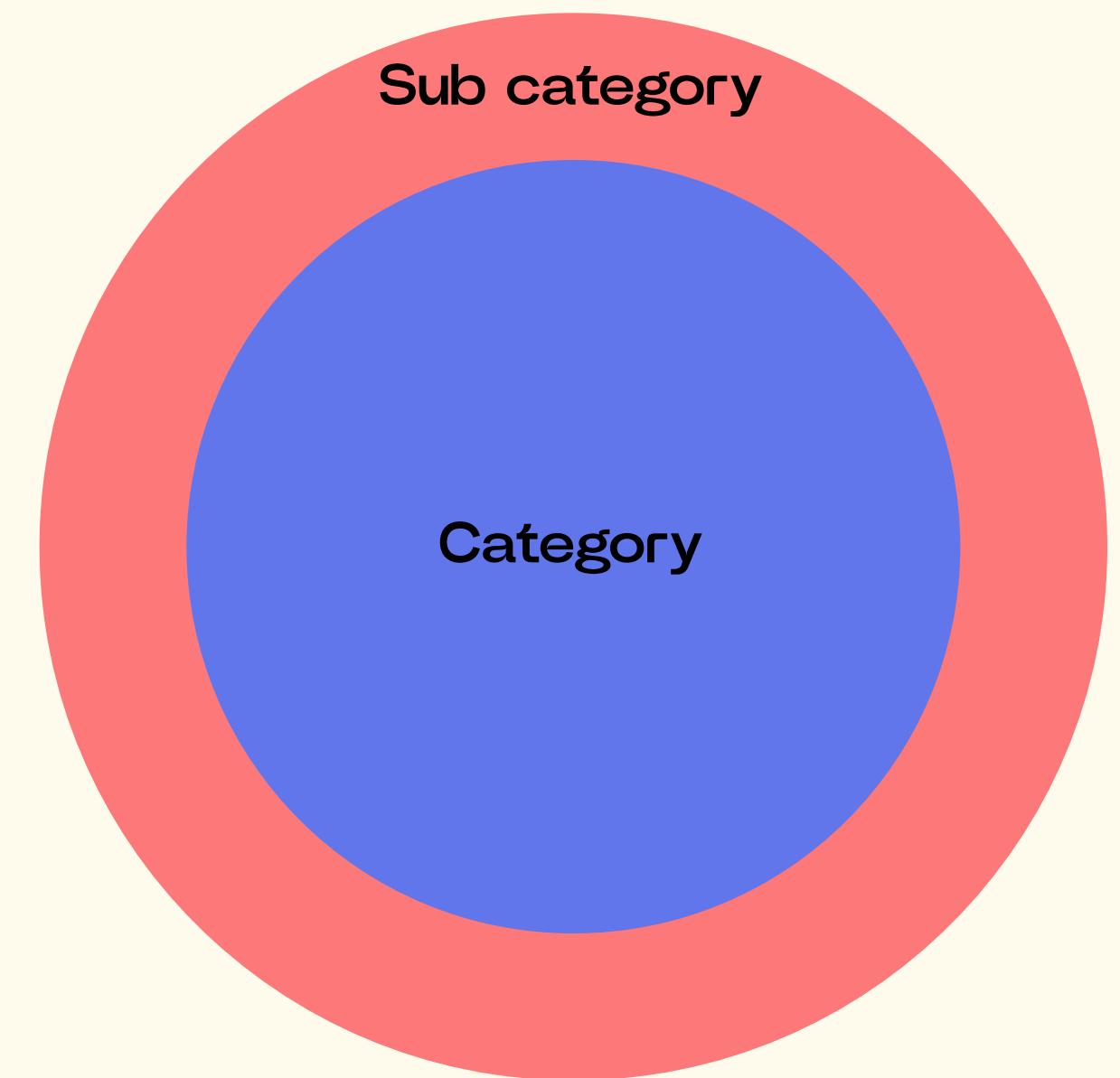
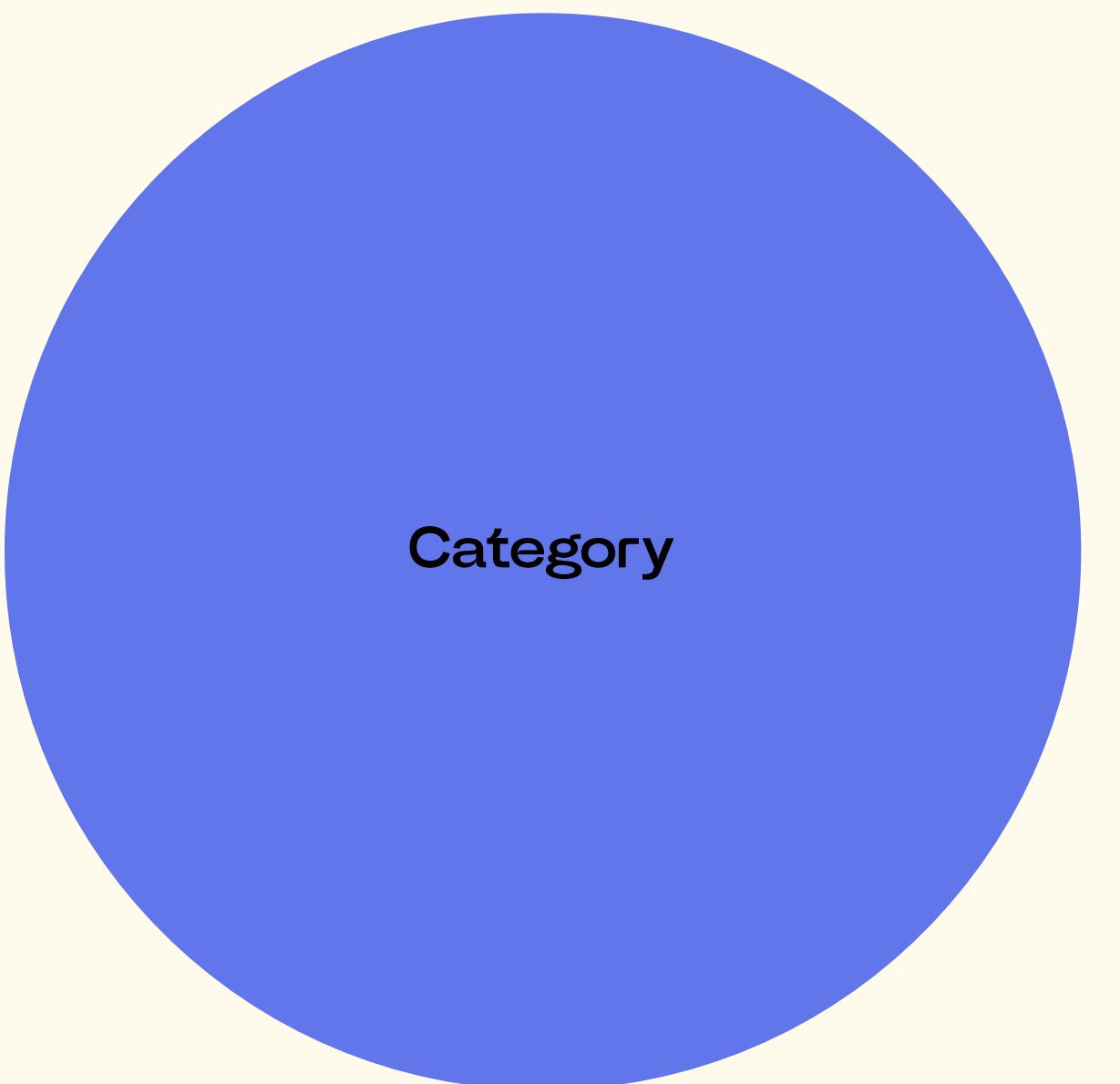
toolCategory.sort((a, b) => {
  const indexA = customOrder[a[0]];
  const indexB = customOrder[b[0]];
  return indexA - indexB;
});
```



Step 4: Classification into bigger category

Representation of the nodes using the same colors

```
.attr("fill", d => {
  const subcategory = d.category;
  const desiredCategory = desiredCategories.find(
    category => category.subcategories.includes(subcategory));
  return desiredCategory ? colorScale(desiredCategory.name) : "none";
})
.style("stroke", d => {
  const subcategory = d.tags;
  const desiredCategory = desiredCategories.find(
    category => category.subcategories.includes(subcategory));
  return desiredCategory ? colorScale(desiredCategory.name) : "none";
})
```



Step 5: Adding interaction

On mouse over and click on the nodes and the category

```
// .....ON MOUSE OVER TOOLS .....
```

```
//.....
```

```
.on("mouseover", function (event, d) {
```

```
    if (clicked === false) {
```

```
        if (clickedTool === false) {...
```

```
            d3.selectAll(".tool").attr("r", 2).style("opacity", 0.2);
```

```
            d3.select(this).attr("r", 7).style("opacity", d => d.isCategory ? 0 : 1).style("stroke", "black");
```

```
            d3.select(previousTool).attr("r", 7).style("opacity", d => d.isCategory ? 0 : 1).style("stroke", "white");
```

```
            newSelectionTool = this;
```

```
        }
```

```
}
```

```
.
```

```
.on("mouseout", function () {...
```

```
.
```

```
.on("click", function (event, d) {
```

```
    clickedTool = true
```

```
    clicked = false
```

```
    previousTool = this
```

```
    previousElement = null
```

```
    if (clickedTool === true) {
```

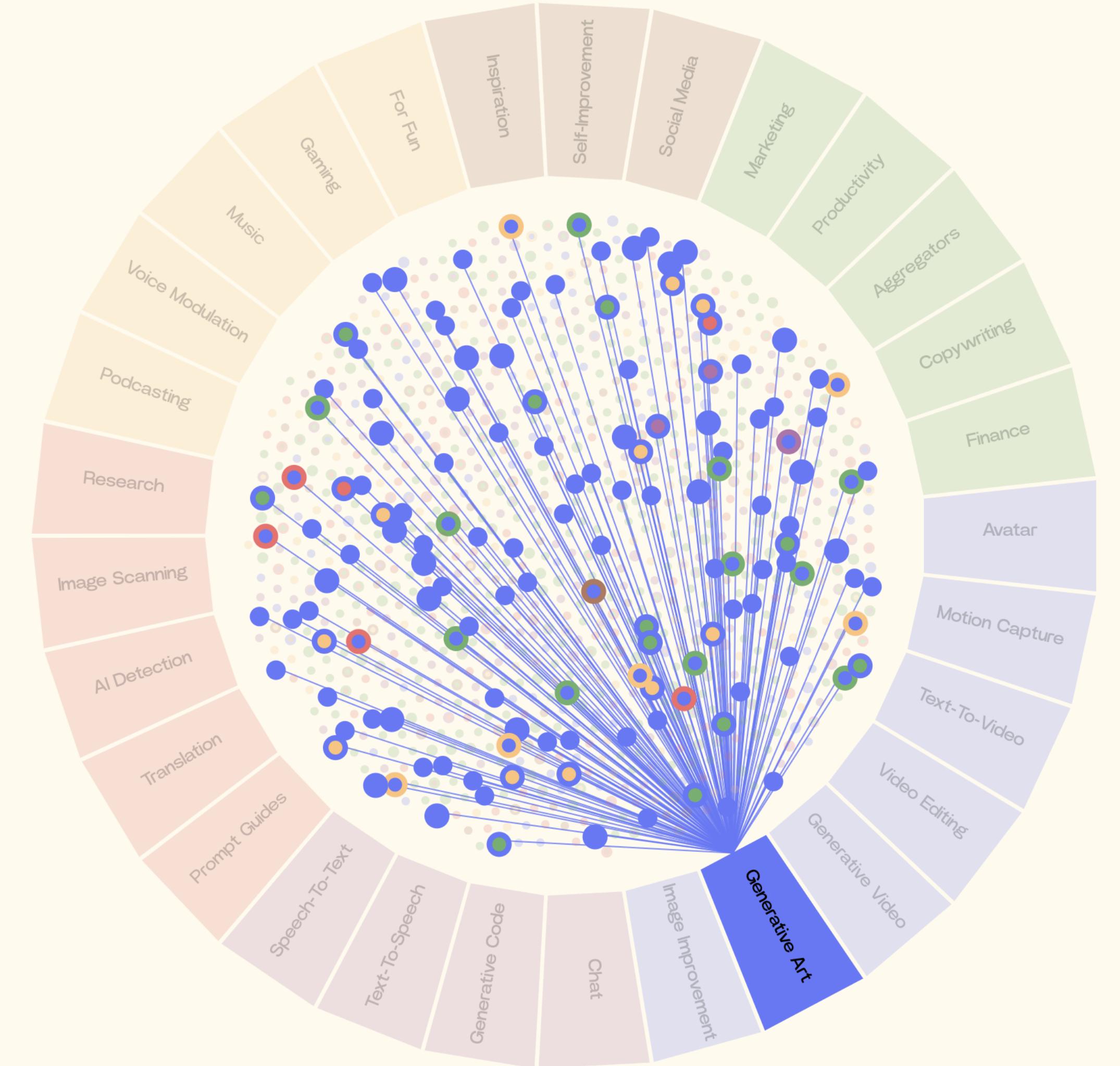
```
        //bigger nodes for the selected object
```

```
        d3.selectAll(".tool").attr("r", 2).style("opacity", 0.2);
```

```
        d3.select(this).attr("r", 7).style("opacity", d => d.isCategory ? 0 : 1).style("stroke", "black");
```

```
        //show associated link
```

```
        d3.selectAll(".linksTag line")
```



Step 6: Interactive UI of the page

```
var height = window.innerHeight;
var widthTotal = window.innerWidth;
var width = widthTotal * 13 / 10
var widthG1 = widthTotal * 3 / 10
var widthBarChart = widthTotal
var svg = d3.select(".svg-container")
    .append("svg")
    .attr("width", widthTotal)
    .attr("height", height)
    .attr("id", "svg2")
    .style("position", "absolute")
var svg1 = d3.select(".svg-container")
    .append("svg")
    .attr("width", widthTotal)
    .attr("height", height)
    .attr("id", "svg1");
var canvas = d3.select(".svg-container")
    .append("svg")
    .attr("id", "svg3")
    .attr("width", widthBarChart)
    .attr("height", height)
    .style("background-color", "#FFFBEA")

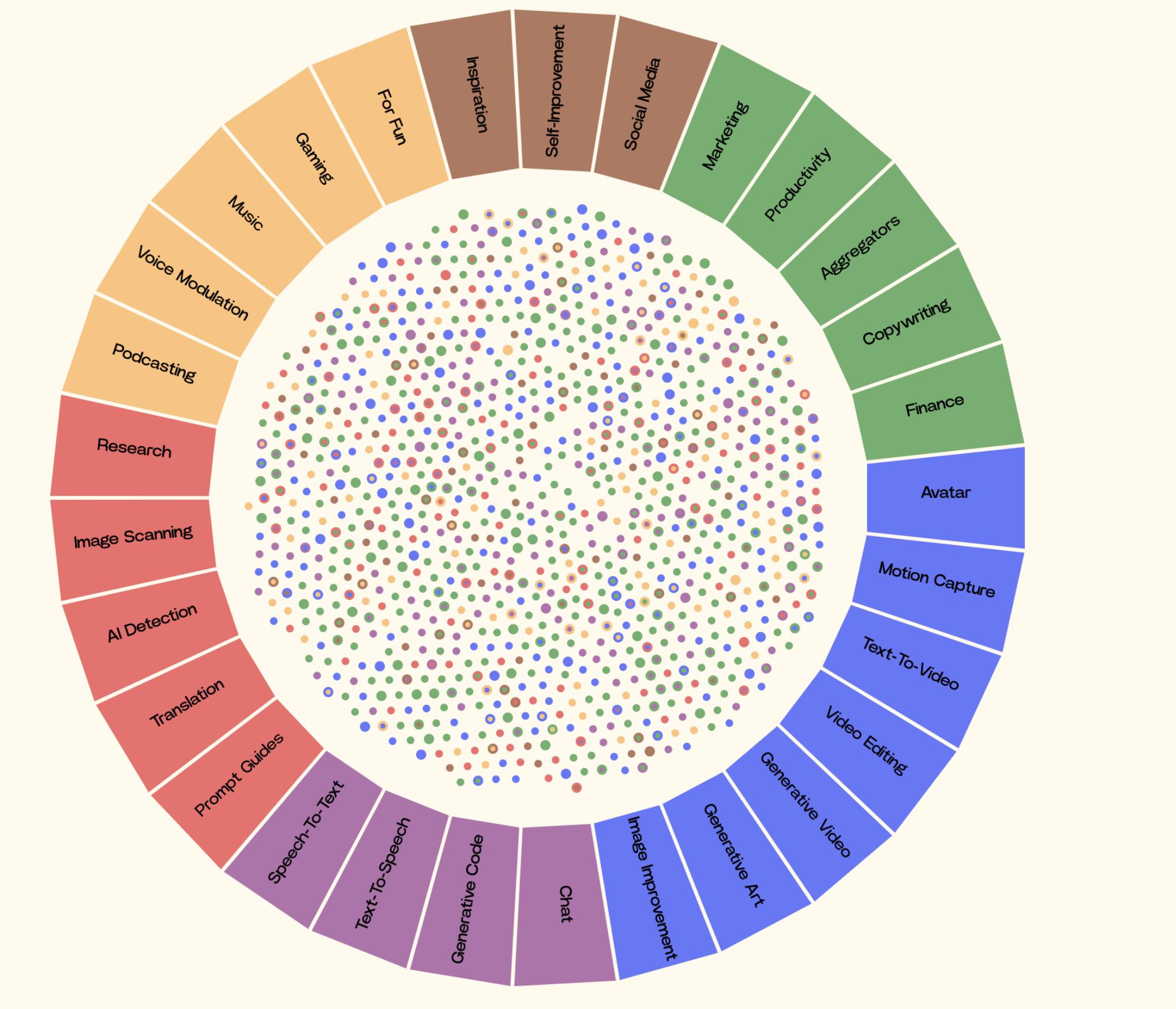
//.....INTRODUCTION TEXT ON THE SIDE.....
function Introtext() { ...
Introtext()

//.....DATA VISUALIZATION.....
function dataViz() { ...
dataViz()

})
```

AI tools visualizer

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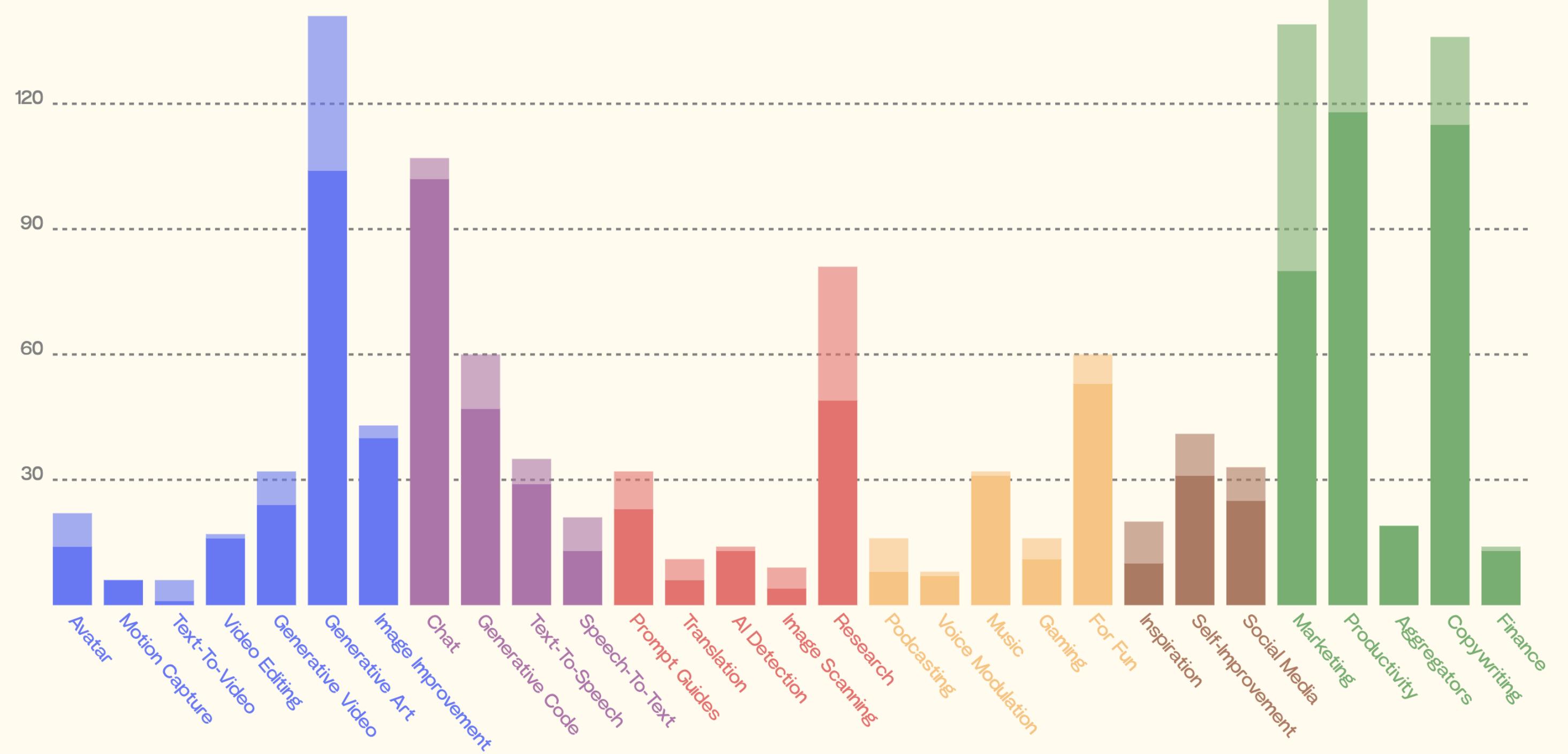
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Step 7: Integration of the bar chart

Refinement of the bar chart with the correct classification and colors and clickable navigation through the page

```
//arrow click
svg.append("rect")
  .attr("x", 0)
  .attr("y", 0)
  .attr("width", 40)
  .attr("height", 50)
  .attr("transform", "translate(20," + (height - 80) + ")")
  .attr("fill", "black")
  .style("opacity", 0)
  .on("click", function () {
    console.log("clicked")
    window.scrollTo({
      top: document.body.scrollHeight,
      behavior: "smooth"
    });
  });
}
```

Here is a bar chart showing the quantity of tools in each category. A high number of tools can indicate a specific demand and interest in using AI for that particular domain of application.

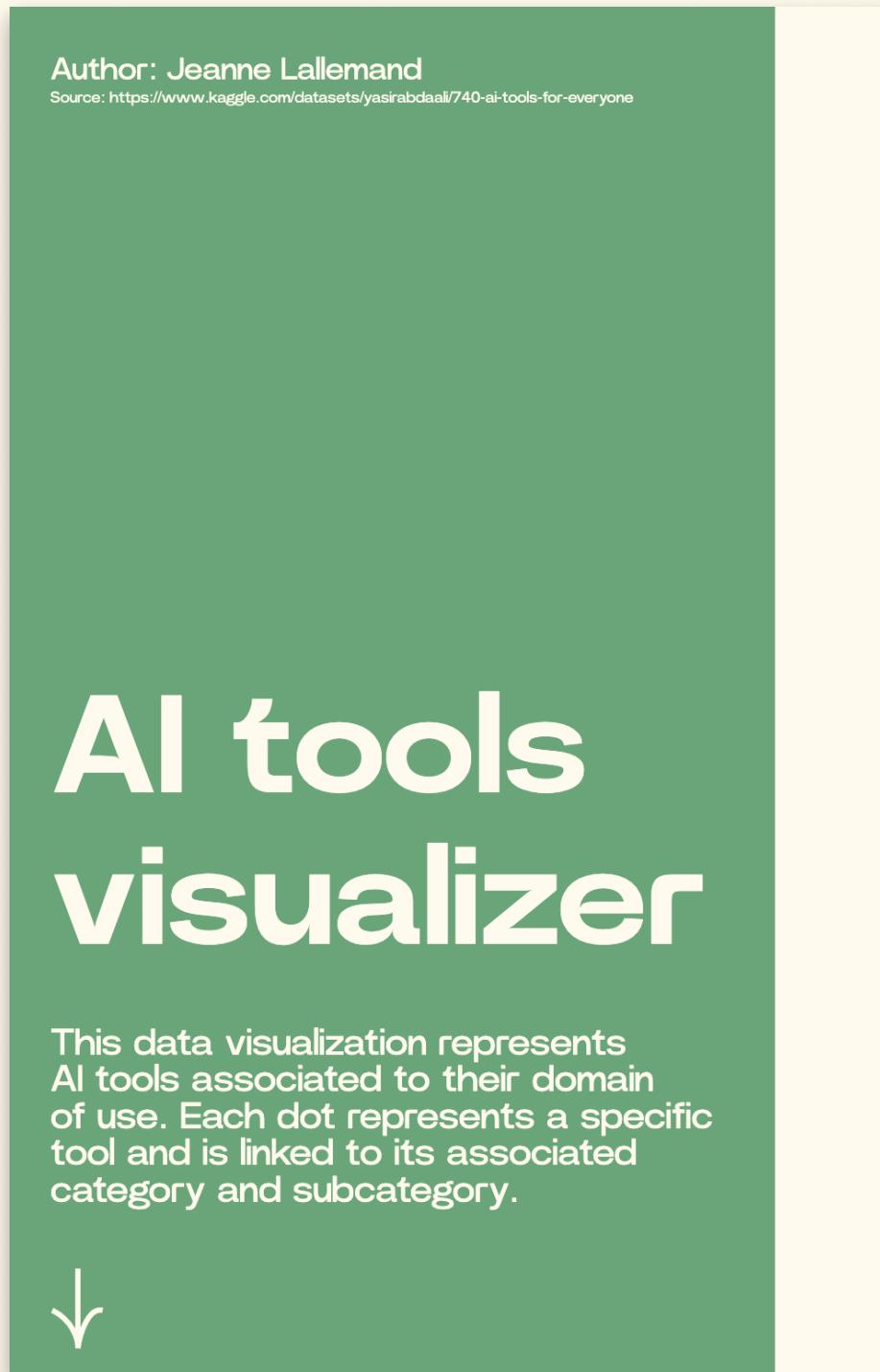


Testing session and refinement

AI tools visualizer

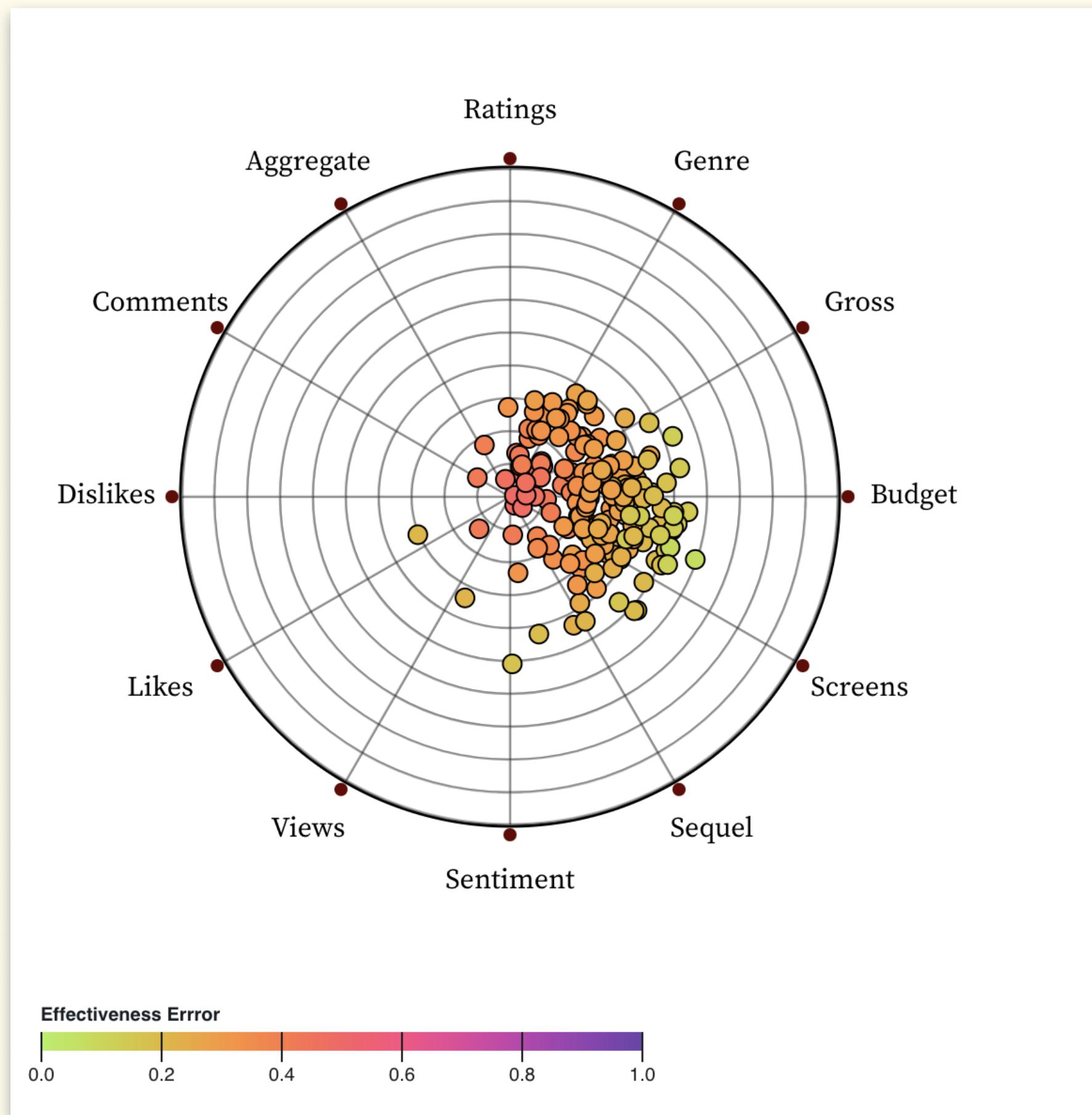
This data visualization represents AI tools associated to their domain of use. Each dot represents a specific tool and is linked to its associated category and subcategory.

1



- Adding smooth transitions in the interaction (no flash)
 - Adding a legend for the node colors and the bar chart color
 - Writing the name of the big category (each color)
 - If category is clicked, display the name of the tool on mouse over
 - Adding a feedback for clickable elements (e.g: changing arrow)

What can be the next steps ?



- Try to display the tools according to the force of each category (maybe possibility to filter on the website)
- Information card of the selected tool (link, description)
- Information card of the category (and most used tools)
- Adding a graph of the preferred tools for each category (maybe interactive with the existing graphs)

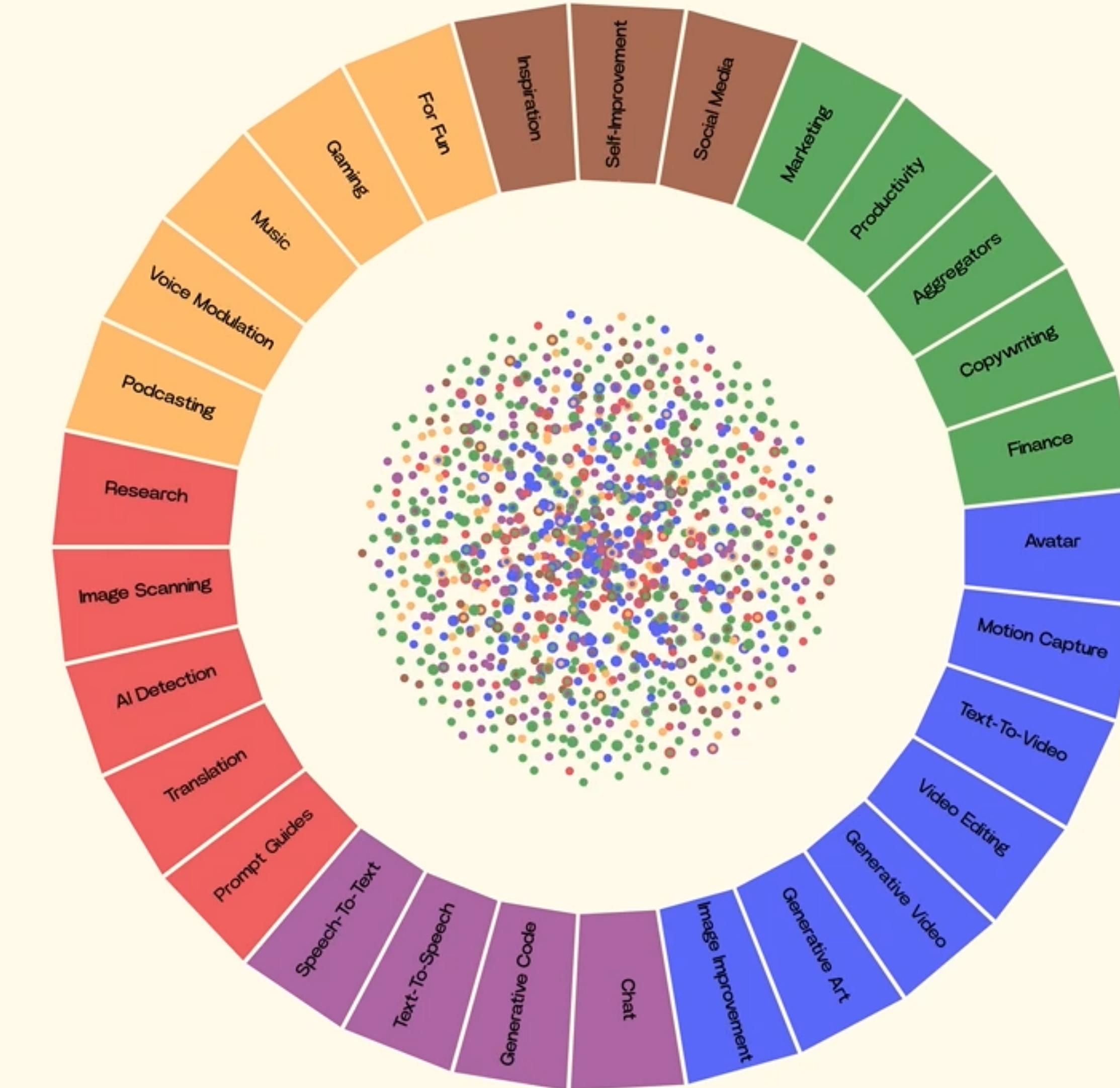
AI tools visualizer

This data visualization represents AI tools existing associated to purpose of use. Each dot represents a specific tool and is linked to its associated category and subcategory.



Thank you !

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