



The Researcher's Toolbox: Transforming Data into Stunning Presentations

Designing Presentations and Scientific Posters

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IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System
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Mission 4 "Education and Research" - Component 2: "From research to business" - Investment
3.1: "Fund for the realisation of an integrated system of research and innovation infrastructures"



Finanziato
dall'Unione europea
NextGenerationEU



Ministero
dell'Università
e della Ricerca



BRUSH: 1. general approach

Visual: don't pick © materials



It's forbidden
(and the watermark is horrible) 😅

Try with free pictures i.e.:
[pixabay](#)
[unsplash](#)
[wikipedia](#)

If you don't have a subscription
plan, give credits
to the website/author!

A vertical graphic of an orange paintbrush with a silver ferrule, positioned on the left side of the slide.

BRUSH:

2. presentation platforms

BRUSH: 2. presentation platforms

1. Google Slides (Cloud-based Collaboration)
2. Microsoft PowerPoint (The Professional Standard)
3. Prezi (Non-Linear Storytelling)
4. Canva (Design-First Approach)
5. Presentations.ai (AI-Powered Generation)



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Google slides - *The Collaborative Tool*

Pros



- **Real-Time Collaboration:** Best-in-class simultaneous editing.
- **Total Accessibility:** Free and cloud-based.
- **Google Integration:** Seamless with Drive, Sheets, and Gmail.
- **Automatic Saving:** Reliable cloud backup.



Google Slides

Cons



- **Limited Functionality:** Fewer advanced animations and formatting tools than PowerPoint.
- **Network Dependency:** Offline mode exists but is less robust.
- **Font Constraints:** Limited to web fonts.

BRUSH: 2. presentation platforms

Microsoft PowerPoint - *The Professional Standard*

Pros



- **Industry Standard:** Universally compatible in corporate environments.
- **Power & Control:** Sophisticated animation (Morph), data handling, and master slides.
- **Offline Control:** Reliable performance without internet.
- **Versatility:** Handles massive decks and complex data well.

Cons



- **Cost:** Requires a license/subscription.
- **Collaboration:** Improved, but still prone to "version control" issues compared to Google.
- **Learning Curve:** Advanced features require training.

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Prezi - *The Dynamic Presentation*

Pros



- **AI creation:** quick and creative
- **Non-Linear Storytelling:** Great for "conversational" presenting (zooming in/out).
- **Visual Impact:** Highly engaging and cinematic.
- **Differentiation:** Stands out from the "death by PowerPoint" format.



Prezi

Cons



- **Motion Sickness:** Zoom effects can be dizzying if overused.
- **Rigidity:** Harder to adapt standard linear content into this format.
- **Learning Curve:** Requires a new way of thinking about structure.
- **Paywall:** free plan has limited possibilities

BRUSH: 2. presentation platforms

Canva - *The Design-First Platform*

Pros



Cons



- **Stunning Aesthetics:** Massive library of professional templates and stock assets (photos, icons).
- **Ease of Use:** Intuitive drag-and-drop interface makes non-designers look like pros.
- **Brand Kits:** Easy to enforce brand colors and fonts.
- **Multimedia:** Excellent integration of video and social media graphics.

Data Visualization: Charts and graphs are basic compared to Excel/PPT.

Export Issues: Exporting to editable PowerPoint (.pptx) can result in formatting errors.

Presentation Mode: Speaker notes and presenter view are functional but less robust than PPT.

BRUSH: 2. presentation platforms

Presentations.ai (The AI Assistant)

Pros



- **Speed:** Generates a full draft from a text prompt in seconds.
- **Layout Automation:** Automatically handles alignment and spacing.
- **Idea Generation:** Great for overcoming "blank page syndrome."

Cons

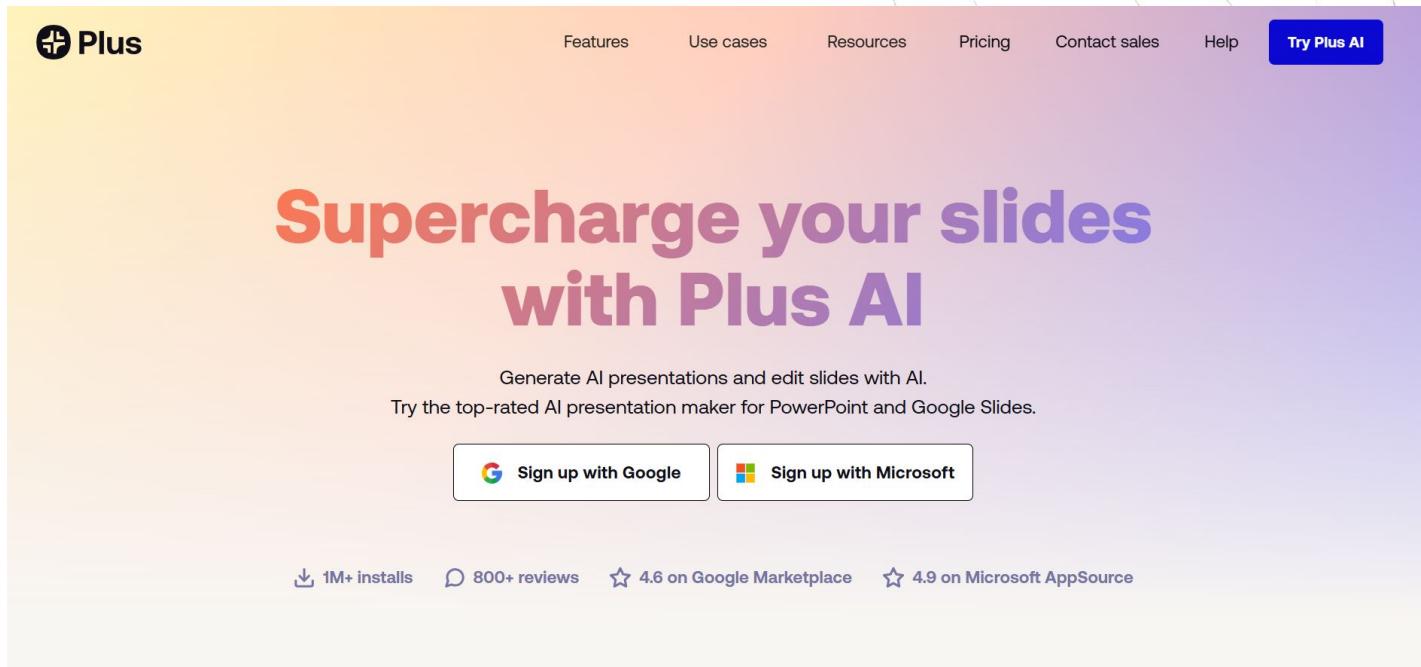


- **Generic Output:** Can feel robotic or generic without heavy customization.
- **Limited Control:** Frustrating if you want to tweak specific design elements manually
- **Cost:** Essential features often locked behind subscriptions.
- **Privacy:** to who are you giving data?

BRUSH: 2. presentation platforms



Add on for PPT: Plus AI

A screenshot of the Plus AI website homepage. The header features a navigation bar with links for Features, Use cases, Resources, Pricing, Contact sales, Help, and a prominent blue "Try Plus AI" button. The main visual is a large, blurred image of a presentation slide with the text "Supercharge your slides with Plus AI" in a large, bold, red font. Below this, a sub-headline reads "Generate AI presentations and edit slides with AI. Try the top-rated AI presentation maker for PowerPoint and Google Slides." Two sign-up buttons are shown: "Sign up with Google" (with the Google logo) and "Sign up with Microsoft" (with the Microsoft logo). At the bottom, social proof metrics are displayed: "1M+ installs", "800+ reviews", "4.6 on Google Marketplace", and "4.9 on Microsoft AppSource".

Plus

Features Use cases Resources Pricing Contact sales Help Try Plus AI

Supercharge your slides with Plus AI

Generate AI presentations and edit slides with AI.
Try the top-rated AI presentation maker for PowerPoint and Google Slides.

 Sign up with Google  Sign up with Microsoft

1M+ installs 800+ reviews 4.6 on Google Marketplace 4.9 on Microsoft AppSource

A vertical graphic of an orange paintbrush with a silver ferrule, positioned on the left side of the slide.

BRUSH:

3. Useful websites

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Image quality: upscaling



Image upscaler:
<https://imgupscaler.com/>

BRUSH: 3. Useful websites

Image quality: uncrop



Image uncrop:

<https://www.pixelcut.ai/it/espandi-immagine-ai>

BRUSH: 3. Useful websites

Image quality: background remover



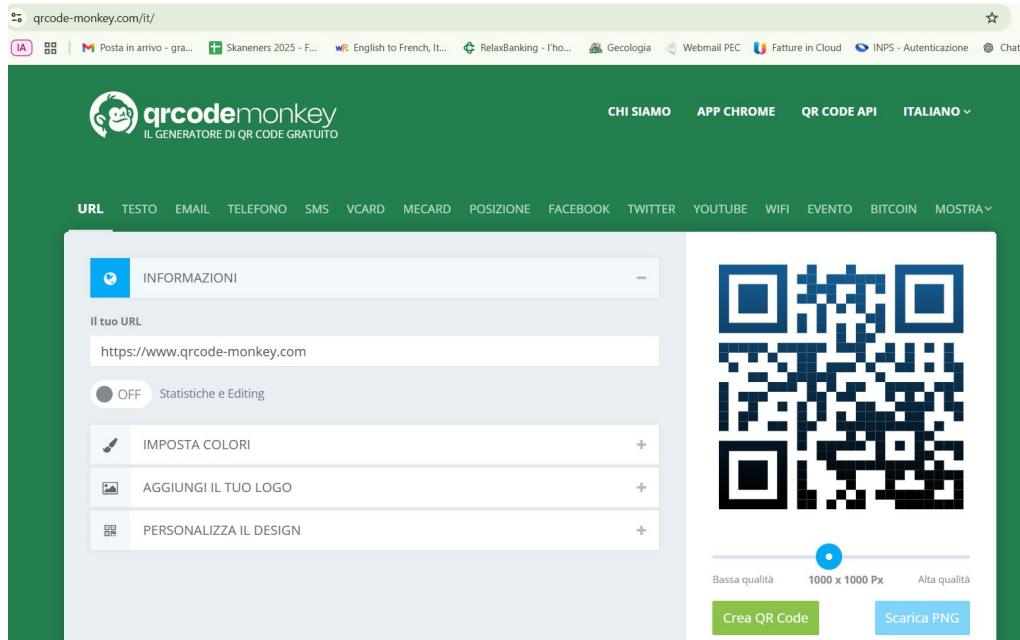
Background remover:
<https://www.remove.bg/it>



(Save the pictures in .png)

BRUSH: 3. Useful websites

QR code generator

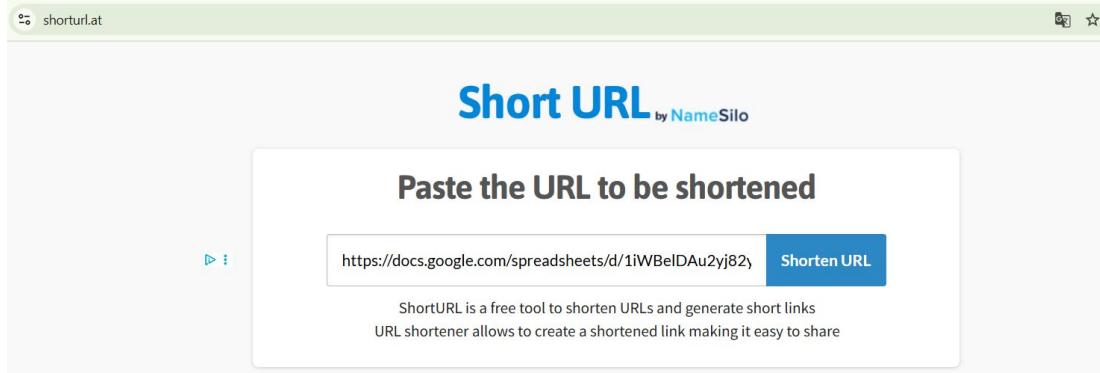


The screenshot shows the homepage of qr code monkey. The top navigation bar includes links for CHI SIAMO, APP CHROME, QR CODE API, and ITALIANO. Below the navigation, there is a menu with options: URL, TESTO, EMAIL, TELEFONO, SMS, VCARD, MECARD, POSIZIONE, FACEBOOK, TWITTER, YOUTUBE, WIFI, EVENTO, BITCOIN, and MOSTRA. A sidebar on the left contains sections for INFORMAZIONI, IMPOSTA COLORI, AGGIUNGI IL TUO LOGO, and PERSONALIZZA IL DESIGN. The main content area displays a QR code for the URL <https://www.qrcode-monkey.com>. Below the QR code is a resolution slider set to 1000 x 1000 Px. At the bottom are two buttons: 'Crea QR Code' (green) and 'Scarica PNG' (blue).

qrcodemonkey.com

BRUSH: 3. Useful websites

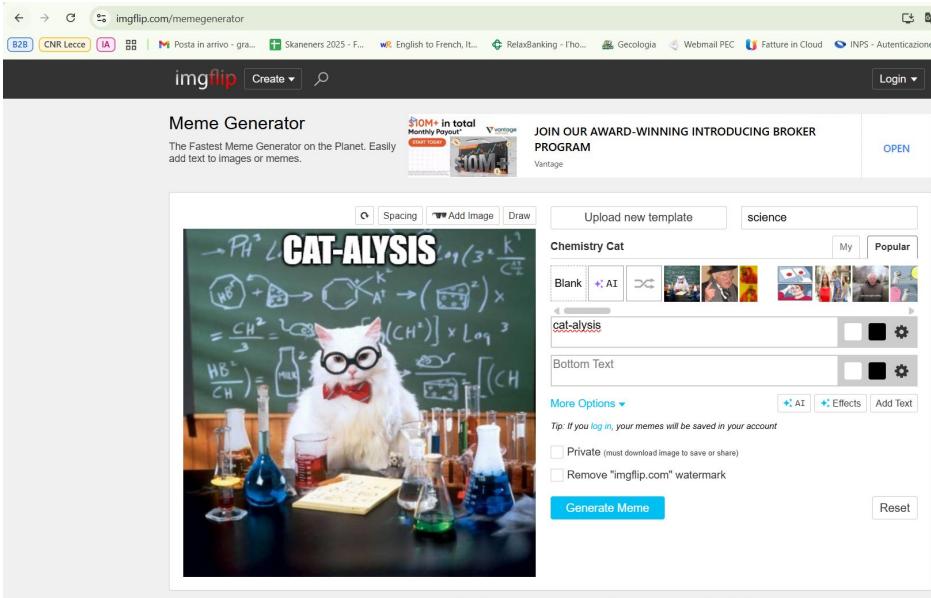
URL shortener



shorturl.at

BRUSH: 3. Useful websites

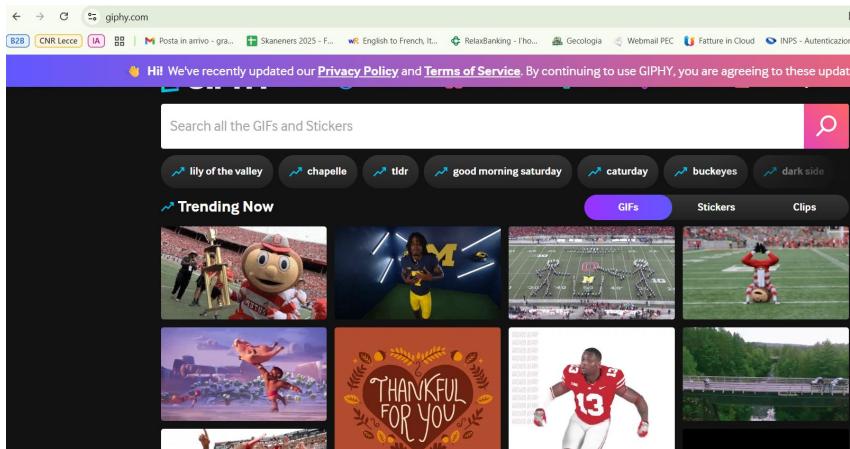
Meme generator



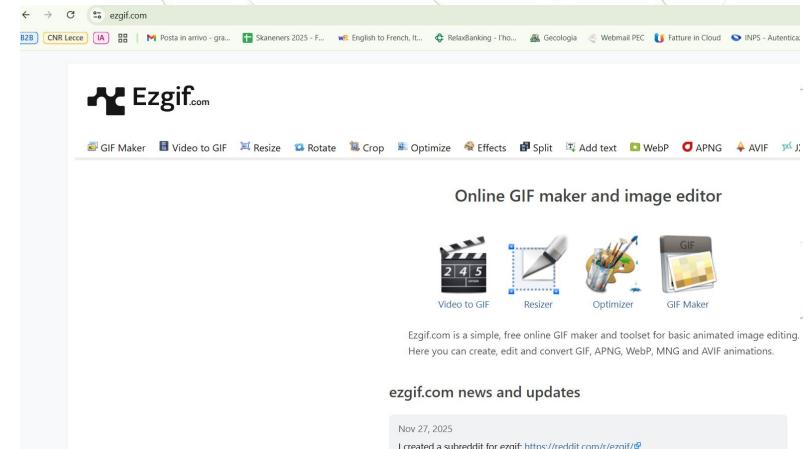
<https://imgflip.com/memegenerator>

BRUSH: 3. Useful websites

GIFs



giphy.com



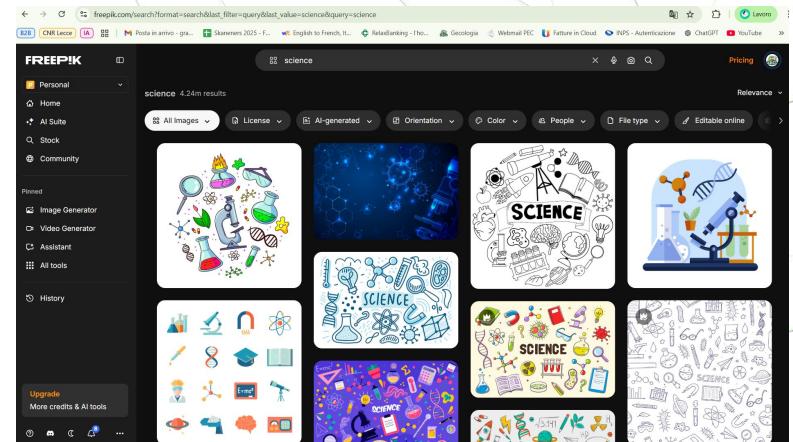
ezgif.com

BRUSH: 3. Useful websites

Free pics and illustrations



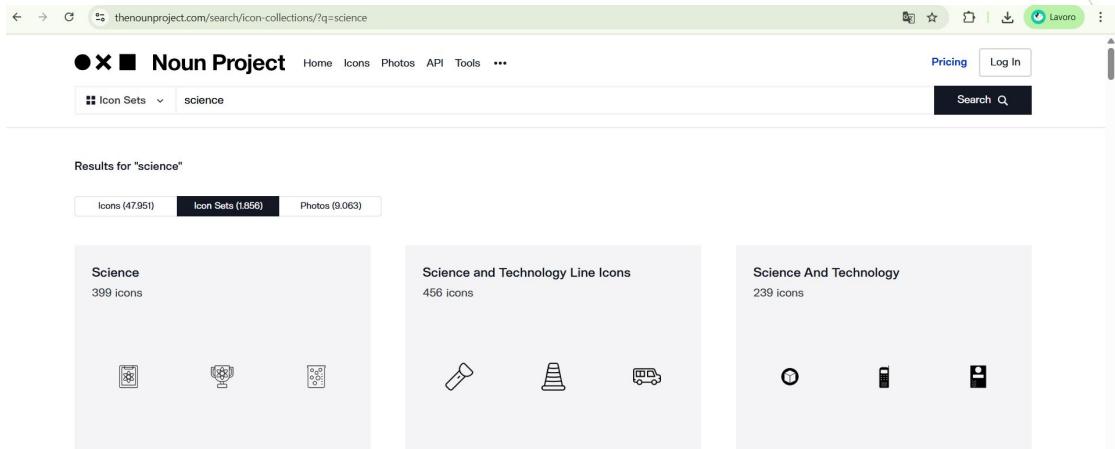
creazilla.com



freepik.com

BRUSH: 3. Useful websites

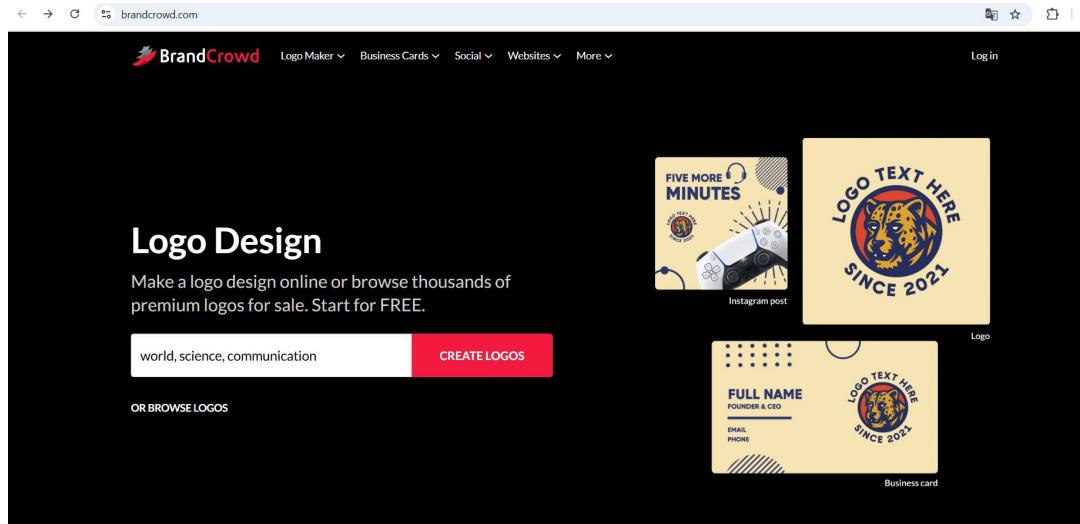
Free pics and illustrations



thenounproject.com

BRUSH: 3. Useful websites

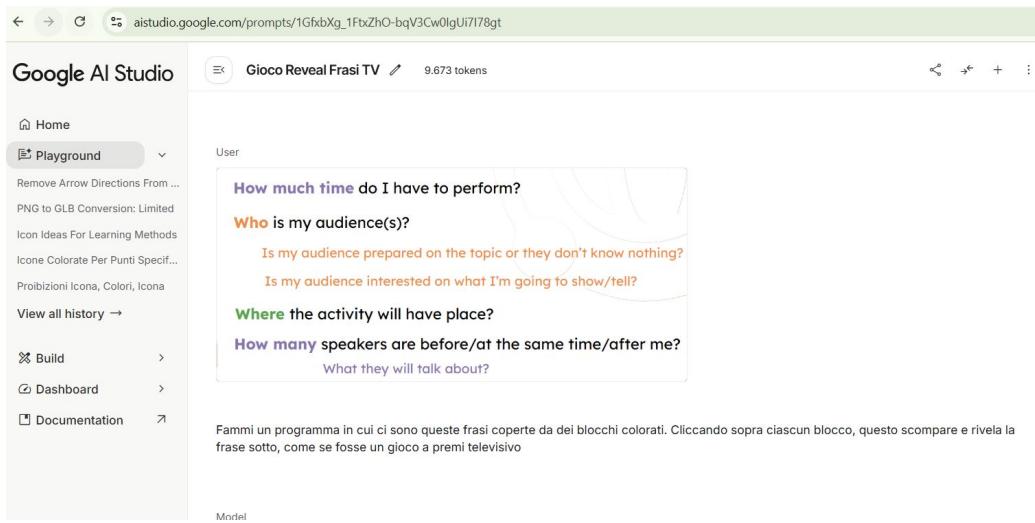
AI logo generator



<https://www.brandcrowd.com/>

BRUSH: 3. Useful websites

AI coding



Google AI Studio

Home

Playground

- Remove Arrow Directions From ...
- PNG to GLB Conversion: Limited
- Icon Ideas For Learning Methods
- Icone Colorate Per Punti Specifici
- Proibizioni Icona, Colori, Icona
- View all history →

Build

Dashboard

Documentation

aistudio.google.com/prompts/1GfxbXg_1FtxZhO-bqV3Cw0lgUi7l78gt

Gioco Reveal Frasi TV 9.673 tokens

User

How much time do I have to perform?

Who is my audience(s)?

- Is my audience prepared on the topic or they don't know nothing?
- Is my audience interested on what I'm going to show/tell?

Where the activity will have place?

How many speakers are before/at the same time/after me?

What they will talk about?

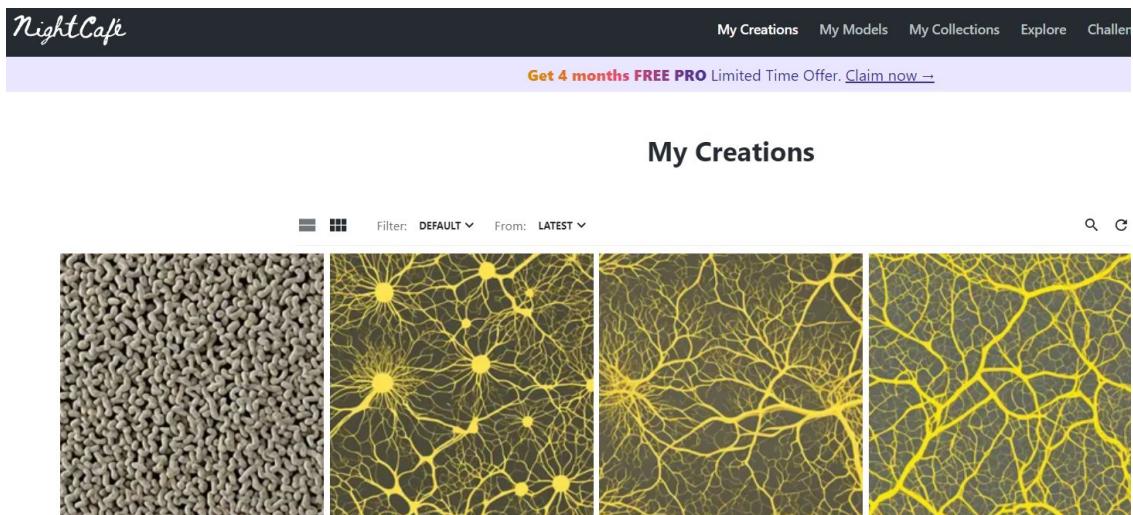
Fammi un programma in cui ci sono queste frasi coperte da dei blocchi colorati. Cliccando sopra ciascun blocco, questo scompare e rivela la frase sotto, come se fosse un gioco a premi televisivo

Model

<https://aistudio.google.com/>

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AI Image generator



<https://creator.nightcafe.studio>

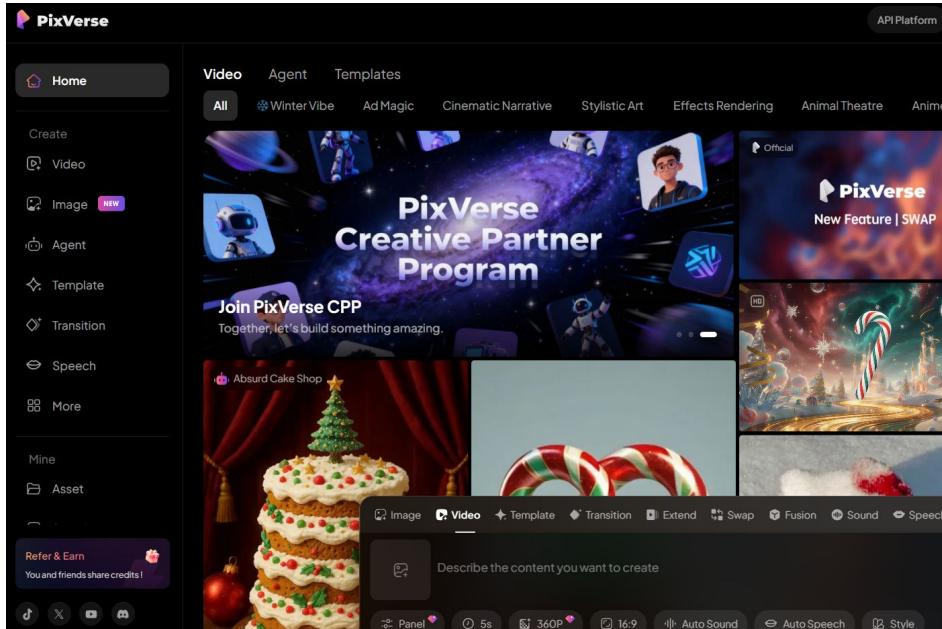
<https://aistudio.google.com>

<https://chatgpt.com/>

<https://perchance.org/>

BRUSH: 3. Useful websites

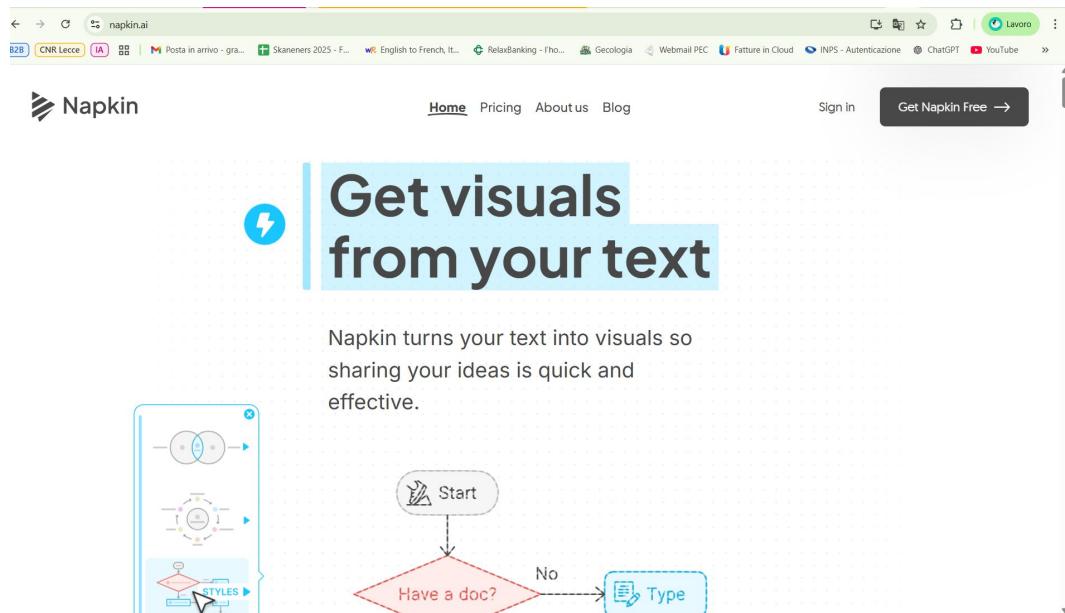
AI video generator



<https://app.pixverse.ai/home>

BRUSH: 3. Useful websites

AI infographics generator



Get visuals from your text

Napkin turns your text into visuals so sharing your ideas is quick and effective.

Start

Have a doc?

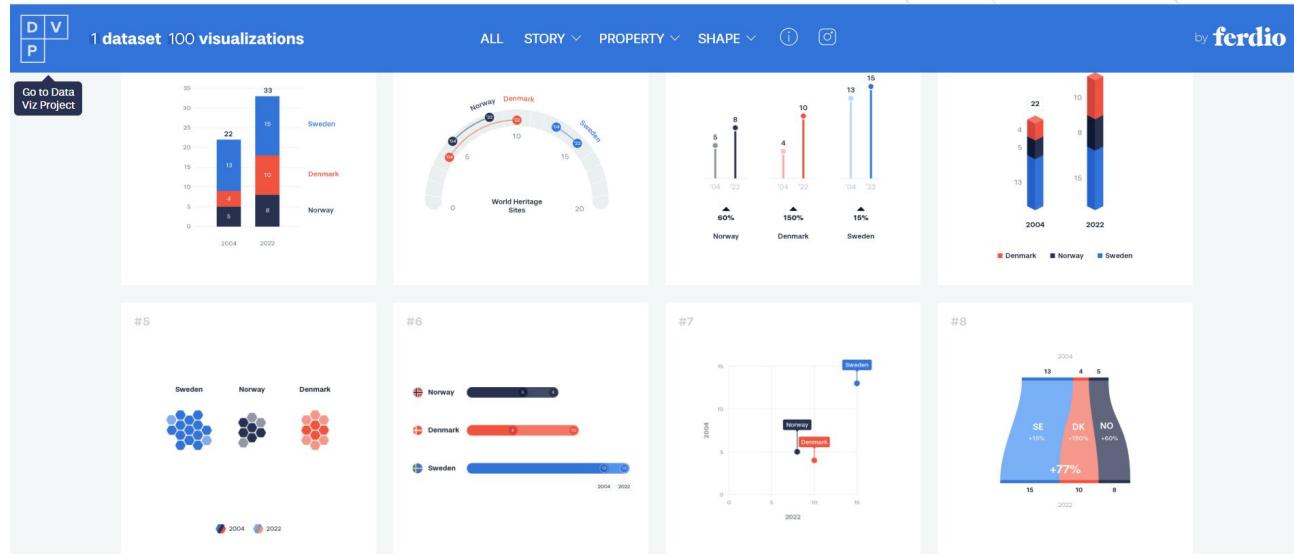
Type

No

<https://www.napkin.ai/>

BRUSH: 3. Useful websites

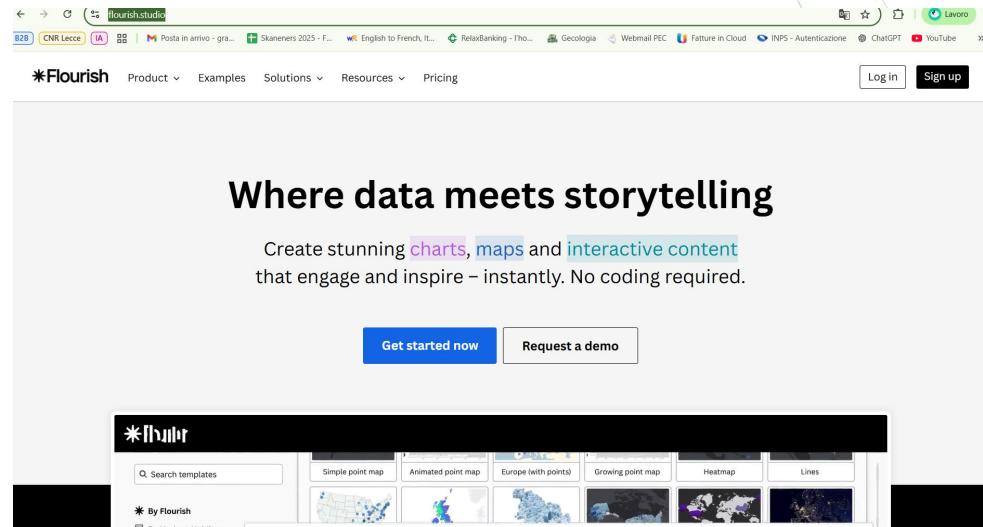
Data visualization



<https://100.datavizproject.com/>

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Data visualization



<https://flourish.studio/>

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Data visualization

What is Flouri.sh?

Flourish is an advanced, web-based platform for creating interactive and animated charts, maps, and data stories.

It is a **specialized tool** whose results are designed to be embedded in presentations or websites.

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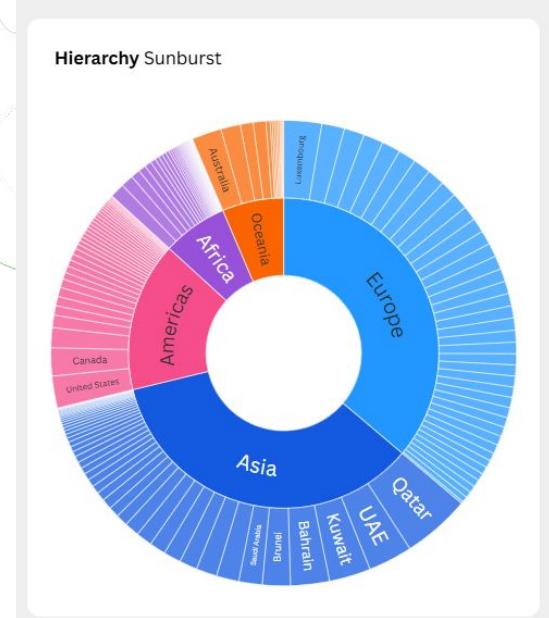
Data visualization

Interactivity: The generated charts are not static images; they are dynamic objects that the audience can explore in real-time (e.g., hovering over data or applying filters).

Animated Storytelling: Perfect for showcasing data evolution over time (e.g., "Bar Chart Race").

Mobile-Friendly: All visualizations are automatically optimized for smartphones and tablets.

Flouri.sh Key Features



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Data visualization

<https://shorturl.at/Z8GBp>

Import Data: Upload your dataset (usually a CSV or Excel file) to the Flourish platform.

Choose a Template: Select a visualization model from hundreds of options (e.g., bar charts, choropleth maps, Sankey diagrams, etc.).

Customize and Publish: Edit colors, titles, and fonts, then publish the visualization. You will receive an embed code to incorporate it into your Google Slides, PowerPoint, or website.

Flouri.sh how to use it

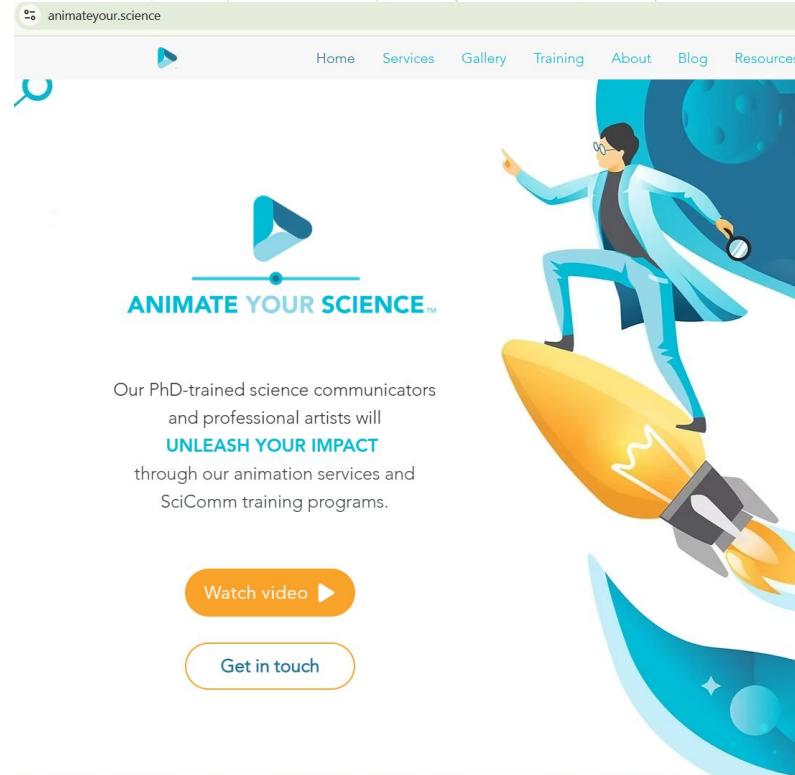
Beware!

The paid plan is necessary to keep visualizations private.

BRUSH: 3. Useful websites

And finally...

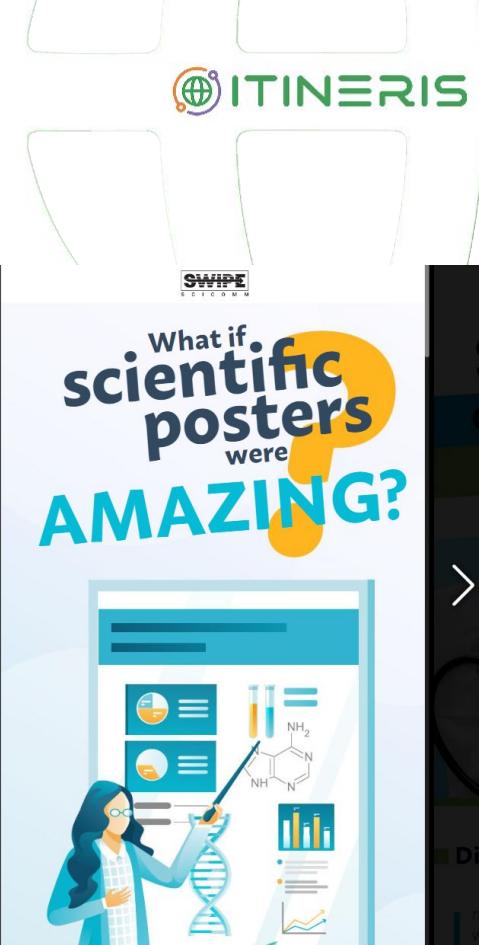
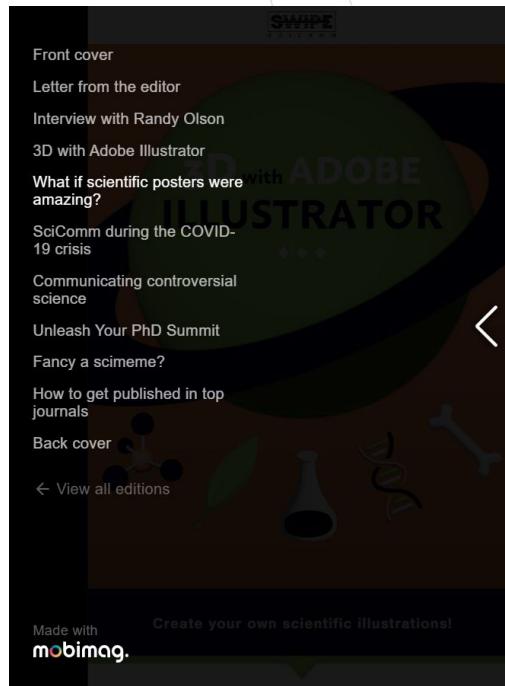
If this field is your passion:
<https://www.animateyour.science/>

A screenshot of the Animate Your Science website. The header features the URL "animateyour.science" and a search bar. The navigation menu includes Home, Services, Gallery, Training, About, Blog, and Resources. The main content area features a logo with a blue play button icon and the text "ANIMATE YOUR SCIENCE™". Below the logo, a paragraph describes the services: "Our PhD-trained science communicators and professional artists will UNLEASH YOUR IMPACT through our animation services and SciComm training programs." Two buttons are present: "Watch video" with a play icon and "Get in touch". To the right of the text, there is a stylized illustration of a scientist in a lab coat riding a yellow rocket ship, pointing towards a blue planet with a crescent moon.

To read more about:

If this field is your passion:
SWIPE, a scientific online magazine

<https://mobimag.co/swipescicomm/i1/5>



A vertical graphic of an orange paintbrush with a silver ferrule, positioned on the left side of the slide.

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4. Posters

BRUSH: 4. Posters

Good practices

First and most obviously, **no wall of text!**

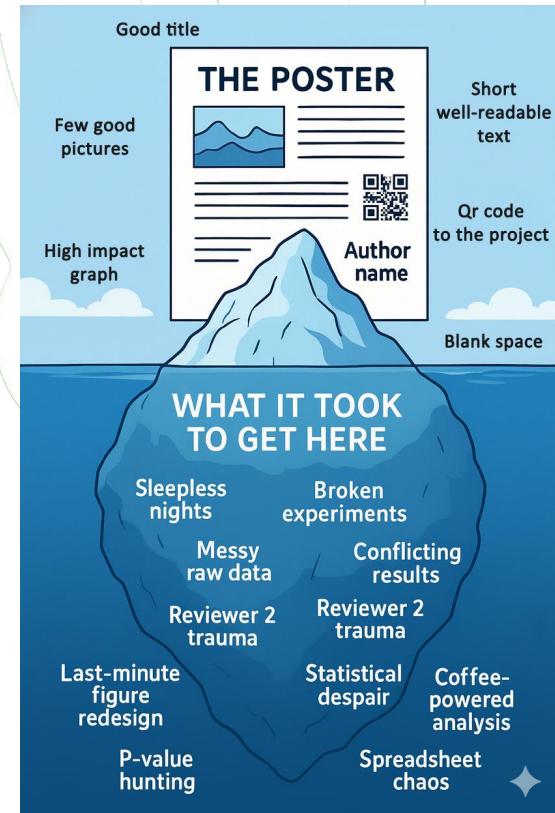
Include some **negative space** to rest the eyes.

Don't overuse graphs or charts (use 2 at most).

Aim for a maximum of **250 words in total** (yes, really).

The main visual element needs to **stand out** even when seen from across the room.

bullet point via animateyour.science



BRUSH: 4. Posters

The 3-30-300 seconds goal

3s: the message is clear and visible

30s: the reader can understand the synthetic results

300s: the reader can deeply read the methods and data



BRUSH: 4. Posters

Citations

Instead of this

Author surname, initial(s). (Year).
Opperman, K.S., Vandyke, K., Psaltis, P.J., Noll, J.E., Zannettino, A.C.W. (2021).
Macrophages in multiple myeloma: key roles and therapeutic strategies. → Article title.
Cancer Metastasis Reviews, 40, 273–284. <https://doi.org/10.1007/s10555-020-09943-1>

Indent Journal Name, volume, pages. DOI/URL

Try this

First author (Year). Journal Name, volume.
Opperman, K. (2021). Cancer Metastasis Reviews, 40.

bullet point via animateyourscience

BRUSH: 4. Posters

HOW TO DESIGN AN AWARD-WINNING CONFERENCE POSTER

Dr. Tullio Rossi

#1 SCRIPTING

- YES to bullet points - NO to long paragraphs.
- Use sections with HEADERS.
- Maximum 250 words! Possibly <150.
- Don't forget your contact information.
- Make sure your poster is telling a story that includes:

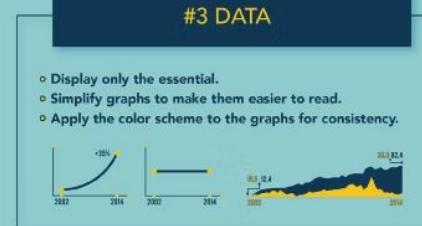
Background Question Methods Results Conclusions

#2 DESIGN

- Decide a layout before you start designing.
- Negative space is your friend. 40% should be blank.
- Use 3 to 5 colors.
- Use 1 accent color to draw attention.
- NO to images and patterns as background.
- Use 1 to 2 fonts - readable from 1 m.
- Feel: More like an infographic less like a scientific poster.

#3 DATA

- Display only the essential.
- Simplify graphs to make them easier to read.
- Apply the color scheme to the graphs for consistency.



[animateyourscience](http://animateyourscience.com)

BRUSH: 4. Posters

Three columns template

[via hobi.med.ufl.edu](http://hobi.med.ufl.edu)

Clinical and Translational
Science Institute
UNIVERSITY OF FLORIDA

HOW TO USE THIS TEMPLATE

Font Information

It template produces a 48 by 32 poster. The white columns are shapes and are adjustable so you are able to remove/ add columns as needed. Add boxes and placed on top of these shapes. You can also add text boxes and tables in other columns. Just Point anywhere, guides will make sure your text is centered and lines up with other text boxes.

Font styles

The font size should be no smaller than 18 pt. Do not change the font. Regular text should be Franklin Gothic Book and bold text should be Franklin Gothic Book. All text should be dark grey, background and dark grey for headings and important information. You can use the color picker tool to change the blue if it is not in your color palette. You should format your font styles using the following slide.

FIG 1: USE THIS STYLE FOR IMPORTANT TITLES SUCH AS INTRODUCTION, RESULTS AND DISCUSSION (SEE THE EXAMPLE AT THE TOP OF THIS SECTION). THIS SHOULD ALSO BE THE ST TEXT OF YOUR POSTER.

FIG 2: Use this style for secondary headlines and for listing important information. This would be a great style for calling out your research questions or steps for findings.

FIG 3: Use this style for calling out important information in it or has a third heading in your content.

FIG 4: Use this style for regular paragraph text.

FIG 5: Use this style for separating content. Use using large paragraphs on your poster. Bulleted lists with headings will help your user understand your key. You can use the bulleted list template below.

This is an example of a bulleted list.

FIG 6: Try using the following format to summarize key points:

- Item 1: Lorem ipsum
- Item 2: Lorem ipsum
- Item 3: Lorem ipsum
- Item 4: Lorem ipsum

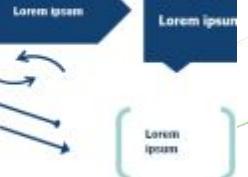
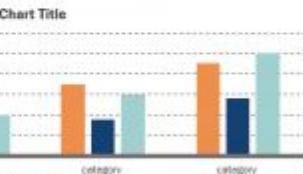
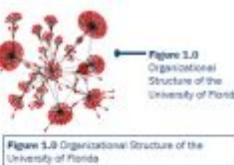
TITLE OF POSTER

Author 1, Author 2, Author 3

GRAPHICS + PHOTOS

Great posters have great graphics:

- When inserting a photo do not add borders or other enhancements.
- Photos should have associated captions, several options are shown below.
- Add several blurry photos. You can visit unsplash.com to search for high-quality photos.
- You may also have charts in your poster. If possible, utilize the templates in the next column to display your data to create a professional look and feel.
- If using screenshots of your tables, make sure they are high-quality.



MORE TIPS

Sharing your poster:

- You can save your poster as a PowerPoint file.
- Then, save as a PDF so you can send it to print or copy.

Resources:

- You can find a list of free stock photo sites here.
- Icons are also a great way to add imagery to your poster. You can use some icons you can use. If you use these icons, please "Icons designed by Freepik" in your references. Refer to



QUESTIONS?

If you have questions or comments about this template, please contact Devens Freed, CTSI communications specialist, at devens@ufl.edu.

REFERENCES

• Provide your references here. PowerPoint does not provide automatic footnote numbering. You will need to create reference numbers in your text and hand edit them here for each reference. Use superscript font to provide a reference number for each reference.

BRUSH: 4. Posters

Articles on posters:

Font sizes:

<https://www.animateyour.science/post/how-to-choose-appropriate-font-sizes-for-your-scientific-poster>

Planning:

<https://www.animateyour.science/post/scientific-posters-a-step-by-step-planning-guide>

Pictures:

<https://www.animateyour.science/post/how-to-select-the-best-images-for-your-scientific-poster>

Colour scheme:

<https://www.animateyour.science/post/how-to-select-a-great-colour-scheme-for-your-scientific-poster>

Headings:

<https://www.animateyour.science/post/how-to-write-engaging-headings-to-make-your-scientific-poster-pop>

Layout:

<https://www.animateyour.science/post/how-to-choose-the-best-layout-for-your-scientific-poster>

A vertical graphic of an orange paintbrush with a silver ferrule, positioned on the left side of the slide.

BRUSH:

5. Presentations

BRUSH: 5. Presentations

Non-linear presentations

Inserting secret links in the presentations, you can create a non-linear story or games



BRUSH: 5. Presentations

Keyboard shortcuts

Windows + Shift + S = Screenshot

Windows + V = Paste from the previous copied content

Ctrl + Shift + V = Paste copying the format

Ctrl + Z = Undo

Ctrl + D = Duplicate the element

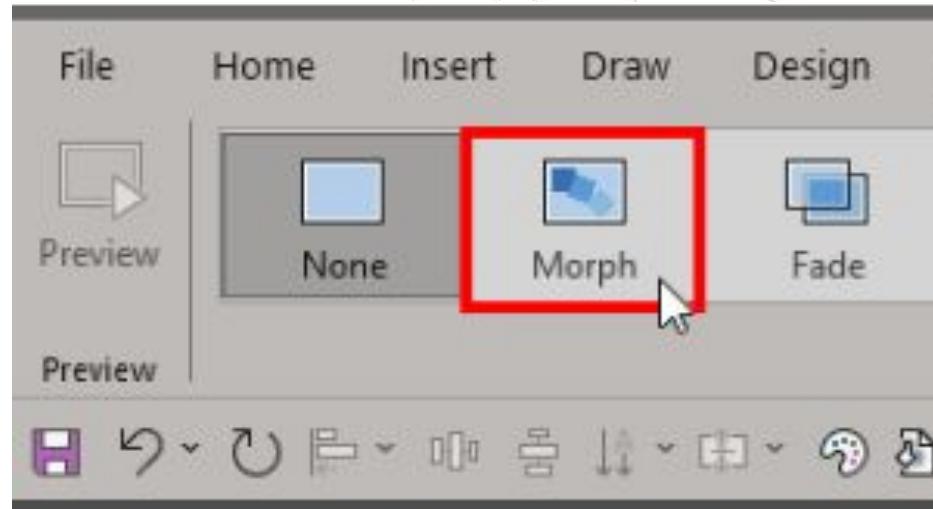
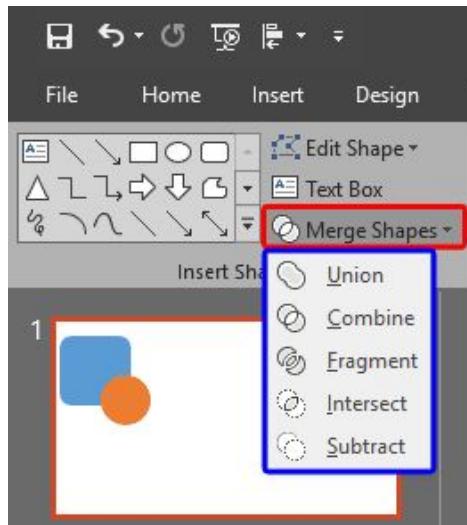
Shift + Arrows = Select all the line/column

Windows + P = Project through a cable (HDMI)

BRUSH: 5. Presentations

These two guys in PowerPoint 2016+ will become
your best friends

(if they're not already)



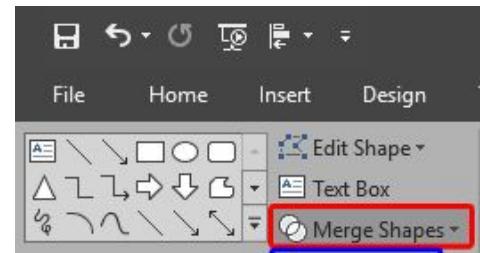
BRUSH: 5. Presentations

PPT 2013+: Merge shapes

“Merge Shapes” allows you to perform “Boolean operations” on two or more selected objects.

Instead of relying on pre-set clip art, you can create custom icons, complex diagrams, and unique layouts directly within the slide.

Select 2+ shapes → Shape Format Tab → Merge Shapes



BRUSH: 5. Presentations

PPT 2013+: Merge shapes - The 5 Operations

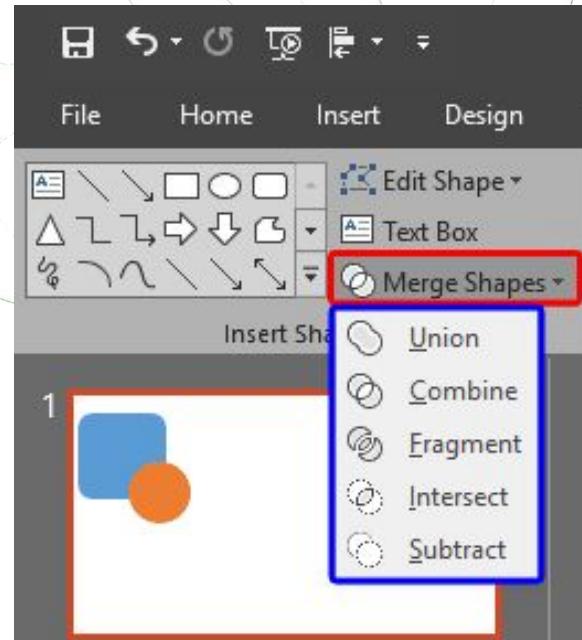
Union: Fuses shapes into one single object.

Combine: Merges shapes but cuts out the overlapping area.

Fragment: Breaks the shapes into separate pieces at every intersection.

Intersect: Keeps *only* the overlapping area.

Subtract: Removes the top shape from the bottom shape (Cookie Cutter).



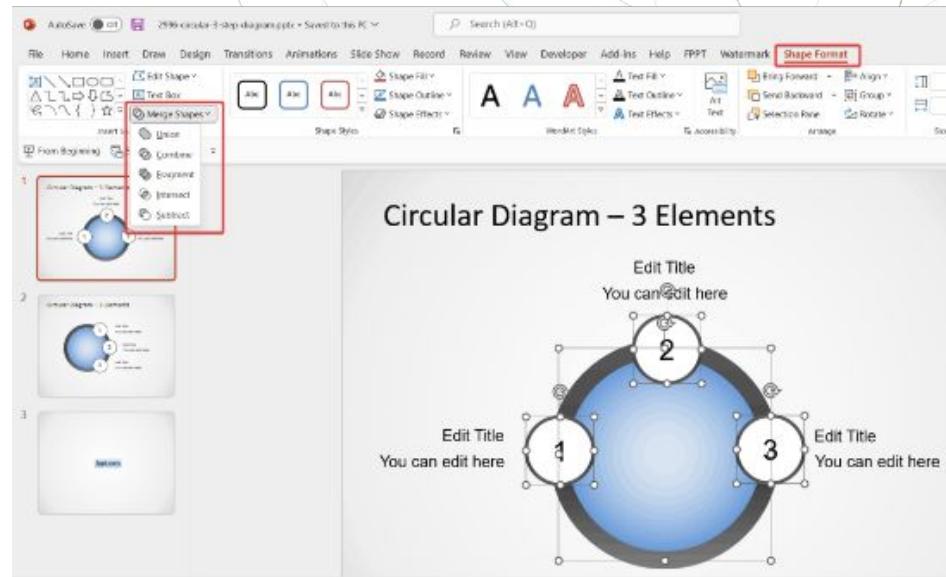
BRUSH: 5. Presentations

PPT 2013+: Merge shapes - Practical applications

Custom Iconography: Create a "Cloud" + "Rectangle" -> Chat Bubble Icon.

Image Masking: Place a Shape over an Image -> Select Image first, then Shape -> Intersect. This creates non-rectangular photos (circles, blobs, stars).

Typography: Subtract text from a rectangle to create a "Stencil" effect where the background shows through the letters.

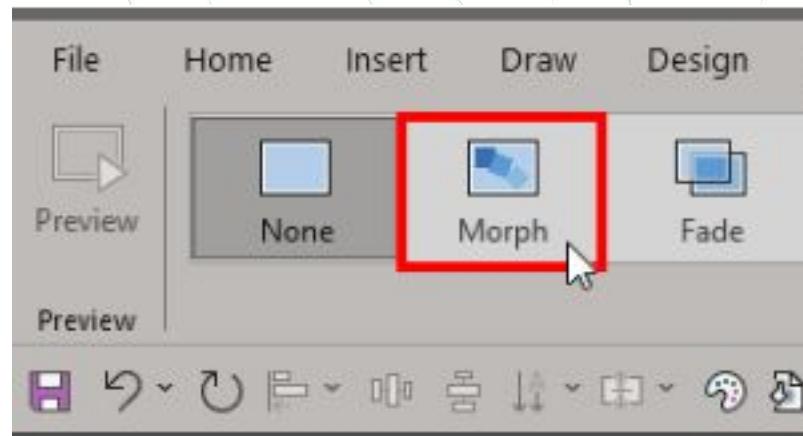


Source: www.free-power-point-templates.com

BRUSH: 5. Presentations

PPT 2013+: Morph transition

Morph doesn't just fade from Slide A to Slide B. It recognizes objects that exist on both slides and animates the difference.



Use Cases

Smooth Continuity: Move an element from left to right to show progression.

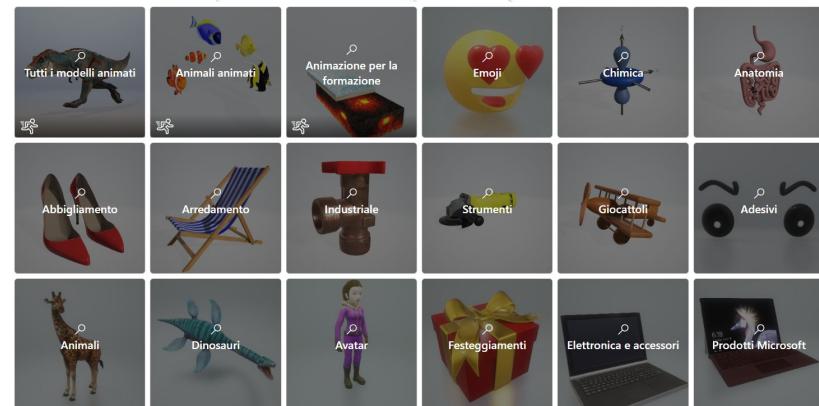
The "Zoom" Effect: Enlarge a small detail from Slide 1 to fill the screen on Slide 2.

BRUSH: 5. Presentations

3D models

To insert a 3D model into PowerPoint, go to the

Insert tab,
click 3D Models,
and then choose either From
Online Sources or From a File
to select a model from the
web or your computer.

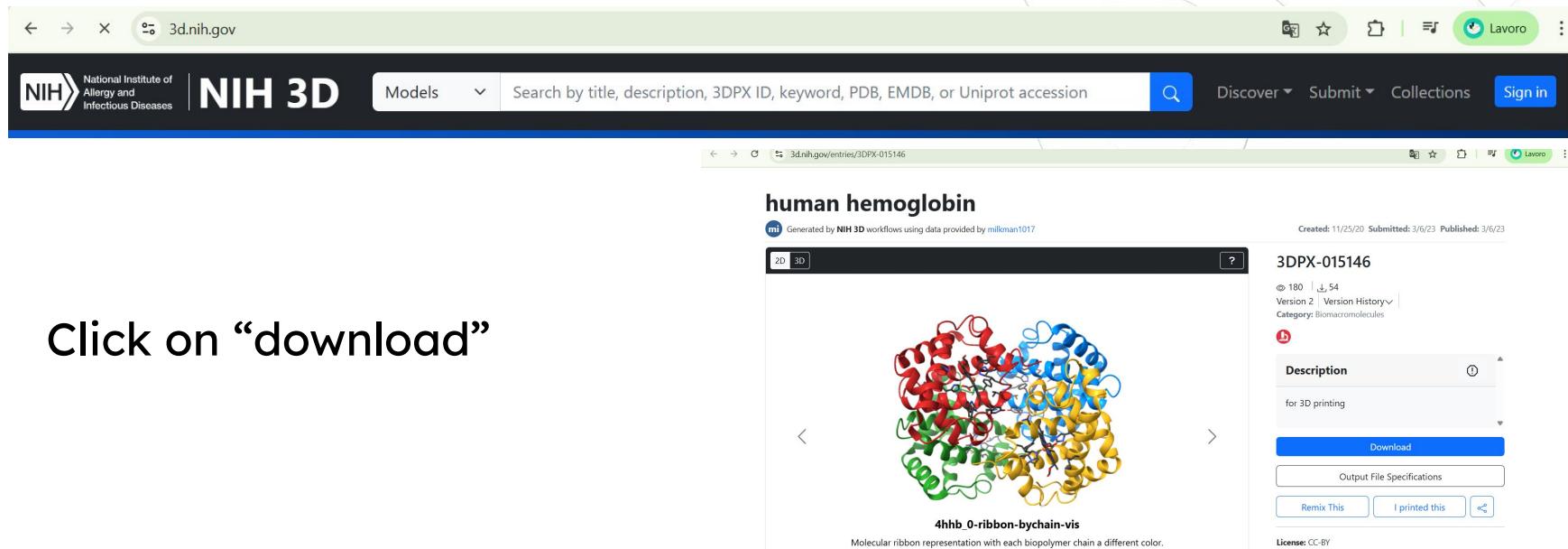


You can also drag and drop a 3D model file directly onto a slide.

BRUSH: 5. Presentations

3D models - How to save a 3d file

Go to 3d.nih.gov and choose a model



The screenshot shows a web browser displaying the NIH 3D website. The URL in the address bar is 3d.nih.gov/entries/3DPX-015146. The page title is "human hemoglobin". A 3D molecular ribbon model of the protein is centered, showing four subunits in red, blue, green, and yellow. Below the model, the identifier "4hhb_0-ribbon-bychain-vis" is displayed. To the right, a sidebar provides details: "3DPX-015146", "Created: 11/25/20", "Submitted: 3/6/23", "Published: 3/6/23", "180", "54", "Version 2 | Version History", "Category: Biomacromolecules". A "Description" box contains the text "for 3D printing". A prominent blue "Download" button is visible, along with "Output File Specifications", "Remix This", "I printed this", and a "License: CC-BY" link. At the bottom, a note states "Molecular ribbon representation with each biopolymer chain a different color."

Click on “download”

BRUSH: 5. Presentations

3D models - How to save a 3d file

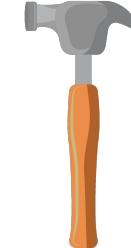
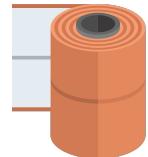
If Windows: click on “gltf”

If MacOS: click on “stl”

Output Files	All glb	All stl	All wrl	All x3d	All png
 4hhb_0-ribbon-secondary-vis Molecular ribbon representation with each amino acid colored by secondary structure. α -helix: blue. β -sheet: red. Coil: yellow. Intended for visualization only, not 3D printing.	 glb		wrl	x3d	png
 4hhb_0-ribbon-rainbow-vis Molecular ribbon representation with each biopolymer chain colored by rainbow from N-terminus (red) to C-terminus (blue). Intended for visualization only, not 3D printing.	 glb		wrl	x3d	png
 4hhb_0-ribbon-bychain-vis Molecular ribbon representation with each biopolymer chain a different color. Intended for visualization only, not 3D printing.	 glb		wrl	x3d	png
 4hhb_0-ribbon-vis Monochrome representation with biopolymer chains shown as ribbons. Intended for visualization only, not 3D printing.	 glb	stl			png
 4hhb_0-ribbon-secondary-print Molecular ribbon representation with each amino acid colored by secondary structure. α -helix: blue. β -sheet: red. Coil: yellow. Ribbons are thickened and non-physical struts added to make more robust for 3D printing.	 glb		wrl	x3d	png
 4hhb_0-ribbon-rainbow-print Molecular ribbon representation with each biopolymer chain colored by rainbow from N-terminus (red) to C-terminus (blue). Ribbons are thickened and non-physical struts added to make more robust for 3D printing.	 glb		wrl	x3d	png

DIY

Good Luck!



ITINERIS



THANKS!

Graziano Ciocca

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