

NOT JUST A STATISTIC

Measuring students' sense of
belonging in higher education via
informal online spaces during
COVID-19



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What does
sense of
belonging
mean to you?



What does sense of belonging mean to you?

TEAM iN4MAL



PATRICK



SHAUNA



BECCA



SARAH



CONNECTION + BELONGING = PERSISTENCE

In higher education,
students need:

- Self-efficacy
- Sense of belonging

(Tinto, 2017)

01.

PROBLEM

Building a Sense of
Belonging (SoB) online is a
difficult process

Let's talk
about online
spaces. Where
do you belong
online?



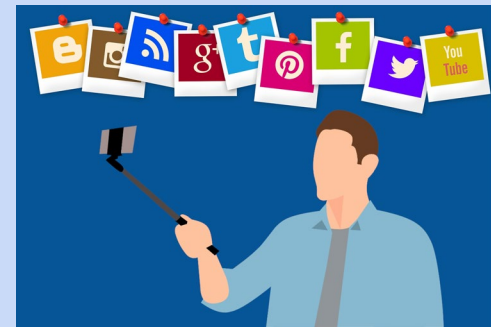
What online communities are you a part of?

SPACES TO BELONG



FORMAL

These spaces
tend to be
scheduled and
regulated.



INFORMAL

These spaces
may offer more
responsive
gathering.

(Black et al., 2020; Procentese et al., 2020)

02.

LITERATUR E



TRADITIONAL vs ONLINE PERSISTENCE

NO
DIFFERENCE

Traditional vs online
(Frydenberg, 2007)

10 - 20%

Lower persistence in
traditional vs online
(Moody, 2004; Carr, 2000)



TINTO & PERSISTENCE

Model of Student Retention

Most cited and supported by
empirical data

Persistence =
Sense of
Belonging + Self
efficacy



“

Students who socially
integrate into the
campus **community**
increase their
commitment to the
institution and are more
likely to graduate.

”

(Tinto, 1975)

TRADITIONAL vs ONLINE COMMUNITY BUILDING

DESIGN MATTERS

Traditional & online
formal environment

COLLABORATIVE, WARM SPACES

Higher persistence in
traditional & online



4 KEY ELEMENTS

McMillan and Chavis (1986)



MEMBERSHIP

Sharing a sense of personal relatedness



INFLUENCE

Sense of mattering



INTEGRATION & FULFILLMENT OF NEEDS

Sense that needs are met through resources in the community



EMOTIONAL CONNECTION

Sense that members will have and share similar experiences

BUILDING COMMUNITY IN PERSON

FORMAL

● DISCUSSION

● GROUP
WORK

● COURSE
DESIGN

● CLASSROOM
DESIGN

INFORMAL

● CONVERSATION

● CAMPUS
EVENTS

● CLUBS

● PEER SUPPORT

BUILDING COMMUNITY ONLINE

FORMAL

● KNOWLEDGE-
SHARING

● ONLINE
EVENTS

● COURSE
DESIGN

● RESPONSIVE

INFORMAL

● SELF-DRIVEN
NETWORKING

● ONLINE EVENTS

COVID - 19



The COVID-19 pandemic severely curtailed opportunities for people to connect with others. Specifically, for students to connect with the campus community and impact their sense of belonging (Mooney & Becker, 2021).

03.

THE GAP

Researching online
informal spaces



INFORMAL SPACES FACILITATED SoB (He, 2020)

- Gap: Research on **online** informal spaces SoB.

USE OF INFORMAL SPACES IN HIGHER ED (Scott et al., 2016; Chang-Tik & Goh, 2020)

- Gap: Research on using online informal spaces **to foster** SoB and community.
- Gap: Do online informal spaces promote student participation, discussions, and socialization among college students **during the COVID -19 pandemic** ?



INFORMAL SPACES CAN BE LEVERAGED

(Black et al., 2020; Sackey et al., 2015)

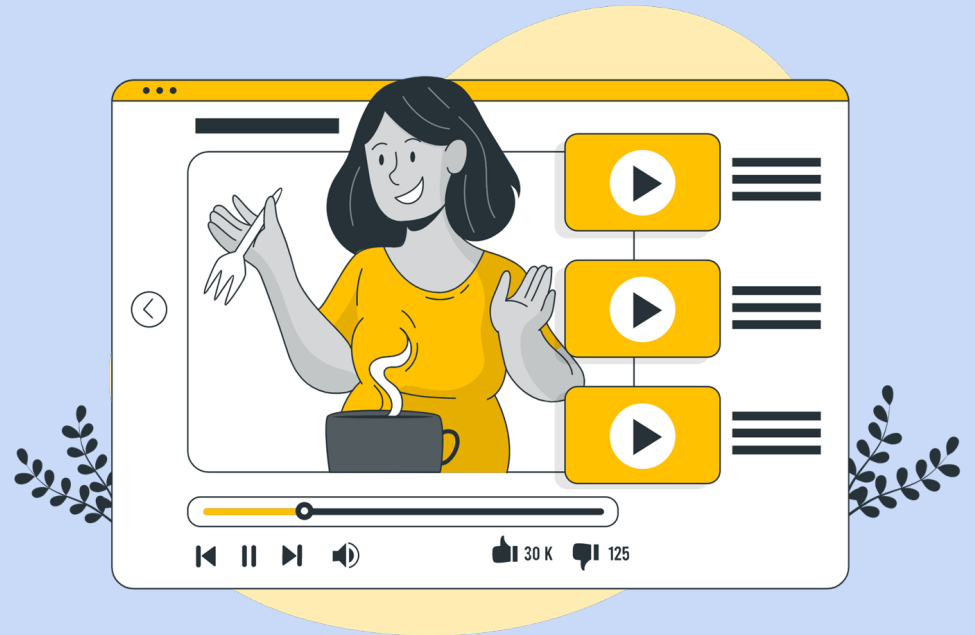
04.

RESEARCH QUESTIONS

This study aims to explore the utilization of online informal spaces to strengthen students' sense of belonging.

RQs

What types of **online informal spaces** do students use?



RQ1

RQ2



A: How do students utilize informal spaces for community building?

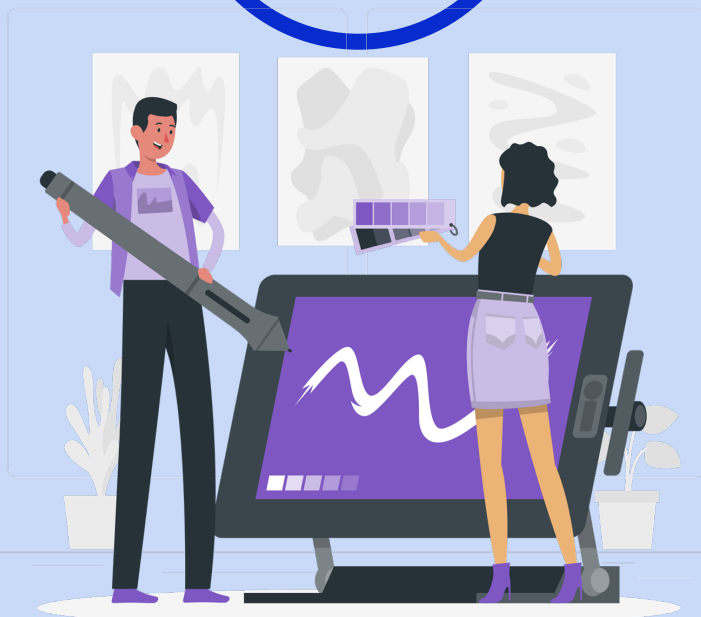
B: What are students' sense of belonging ?

RQs Cont.

What is the relationship between utilization of online informal spaces and students' sense of belonging ?



RQ3



RQ4

What is the **difference in levels** of sense of belonging in students **between various online informal spaces** ?

05. METHODOLOG Y

METHODOLOGY

SUBJECTS

Undergraduate students
at the University of
Hawai'i at Mānoa (UHM)

MATERIALS

Survey administered
through Qualtrics and
analyzed using PSPP

INSTRUMENTS

- Survey Part 1A: Online Social Support Scale
- Survey Part 1B: Operationalized student utilization of online spaces for community building (OSS).
- Survey Part 2: Sense of Belonging Scale

METHODOLOGY

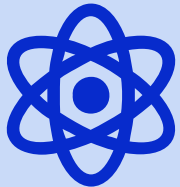
PROCEDURES

1. E-mail and SM posts soliciting participation
 2. Participants sign informed consent forms.
 3. Two - week period: Survey collection
 4. Statistical tests done: describe, analyze, correlation via PSPP
 5. Results interpreted; conclusions drawn
-

VALIDITY & RELIABILITY

Coefficient alpha values of OSS
and Sense of Belonging scales

CATEGORIES OF INFORMAL SPACES



VIRTUAL WORLDS



SOCIAL MEDIA



VIDEO
CONFERENCING

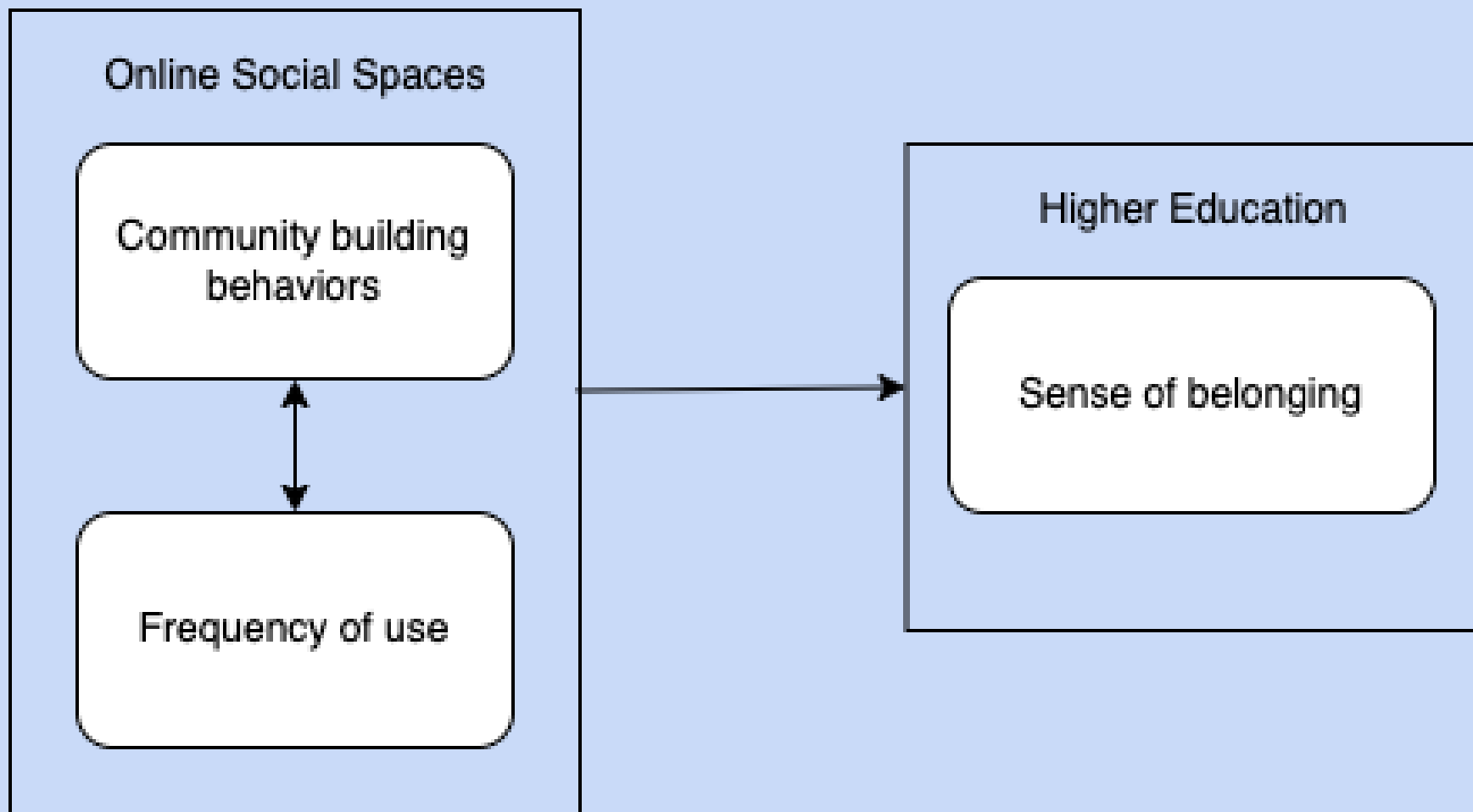


FORUMS



List social spaces you have used that fall into these categories.

CONCEPTUAL FRAMEWORK



OSS Scale Utilization of Spaces (1A)

0 = Never 1 = Rarely 2 = Sometimes 3 = Pretty Often 4 = A lot

Facebook	0	1	2	3	4
Instagram	0	1	2	3	4
Twitter	0	1	2	3	4
SnapChat	0	1	2	3	4
Tumblr	0	1	2	3	4
Vine	0	1	2	3	4
YouTube	0	1	2	3	4
Pinterest	0	1	2	3	4
Reddit	0	1	2	3	4
YikYak	0	1	2	3	4
Kik	0	1	2	3	4
LinkedIn	0	1	2	3	4
GroupMe	0	1	2	3	4
WhatsApp	0	1	2	3	4
Google+	0	1	2	3	4
Whatsgoodly	0	1	2	3	4
Chat services	0	1	2	3	4
Email	0	1	2	3	4
Texting	0	1	2	3	4
Dating sites/apps (e.g., Tinder)	0	1	2	3	4

Engaging in Community Building Behaviors (1B)

0 = Never 1 = Rarely 2 = Sometimes 3 = Pretty Often 4 = A lot

1.	People show that they care about me online.	0	1	2	3	4
2.	Online, people say or do things that make me feel good about myself.	0	1	2	3	4
3.	People encourage me when I'm online.	0	1	2	3	4
4.	People pay attention to me online.	0	1	2	3	4
5.	I get likes, favorites, upvotes, views, etc. online.	0	1	2	3	4
6.	I get positive comments online.	0	1	2	3	4
7.	When I'm online, people tell me they like the things I say or do.	0	1	2	3	4
8.	Online, people are interested in me as a person.	0	1	2	3	4
9.	People support me online.	0	1	2	3	4
10.	When I'm online, people make me feel good about myself.	0	1	2	3	4
11.	When I'm online, I talk or do things with other people.	0	1	2	3	4
12.	People spend time with me online.	0	1	2	3	4
13.	People hang out and do fun things with me online.	0	1	2	3	4
14.	Online, I belong to groups of people with similar interests.	0	1	2	3	4
15.	People talk with me online about things we have in common.	0	1	2	3	4
16.	Online, I connect with people who like the same things I do.	0	1	2	3	4
17.	I am part of groups online.	0	1	2	3	4

Sense of Belonging (2)

1. I feel comfortable asking a question in class.
2. I discuss course material with my classmates before or after class.
3. I feel comfortable volunteering ideas or opinions in class.
5. Speaking in class is easy because I feel comfortable.
6. Class sizes are so large I feel like a number.
7. I like knowing other people in my classes.
8. I wish I knew more students in my classes who I could call if I had a question.
9. If I have a question in class I usually ask it.

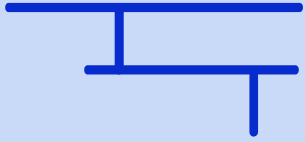
1. I feel comfortable asking a teacher for help if I do not understand course-related material.
2. I feel that a faculty member would not pass judgment on me if I told them about a problem I was having.
3. I feel comfortable discussing my academic program or career plans with a faculty member.
4. If I had a reason, I would feel comfortable seeking help from a faculty member outside of class time (i.e., during office hours, etc.).
5. I feel that faculty try to relate to students on their level.
6. I ask questions if I do not understand something.
7. I feel that faculty are cold and intimidating.
8. I feel comfortable seeking help from a teacher before or after class.
9. Most teachers do a very good job of explaining their objectives.

06.

DATA

COLLECTION AND
ANALYSIS

DATA COLLECTION



Surveying allows researchers to investigate relationships between students' community building practices in online informal spaces and sense of belonging in higher education (Ary et. al, 2019).



08.

CONCLUSION

Recap, Implications, &
contributions

BRIEF RECAP

- Connection + Belonging = Persistence
- Formal and Informal Spaces
- Leveraging Informal Spaces for Learning

PROBLEM & GAP

- What about online spaces of learning?
- Are informal online spaces able to promote a sense of belonging, socialization and community during COVID-19?



FUTURE RESEARCH

- Observing student behaviours in chosen online informal places

IMPLICATIONS / CONTRIBUTIONS

- Extending to student retention and persistence
- Contribution to design of informal online spaces
- 5Cs of social media
 - Curation/Creation
 - Choice
 - Conversation
 - Collaboration
 - *Community*



Mahalo!

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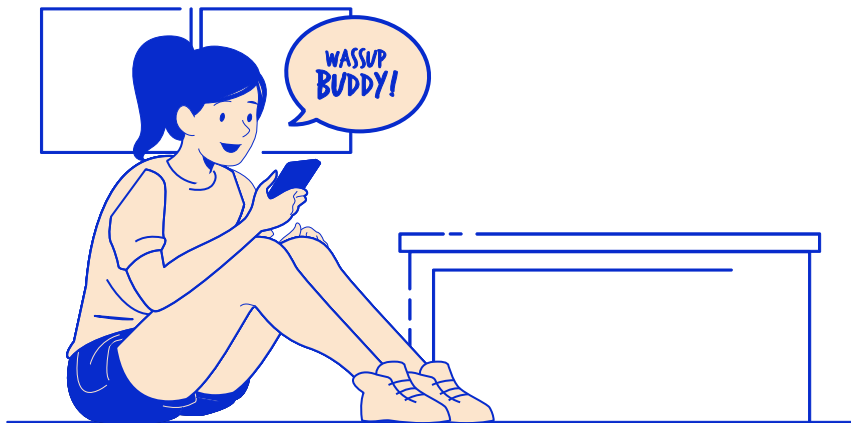
EXTRA
SLIDES
AFTER











LEARNING

Venus has a beautiful name and is the second planet from the Sun. It's terribly hot, even hotter than Mercury



BUILDING COMMUNITY



ON PUBLISH



SAME DAY
AS POST



DAY AFTER
POST



WEEK AFTER
POST



MONTH
AFTER POST



WHAT TONE ARE WE GOING TO USE?

Venus has a beautiful
name and is the second
planet from the Sun. It's
terribly hot, even hotter
than Mercury



BUDGET



2,000,000

Jupiter is a gas giant and the biggest planet



15,000

Saturn is a gas giant and has several rings

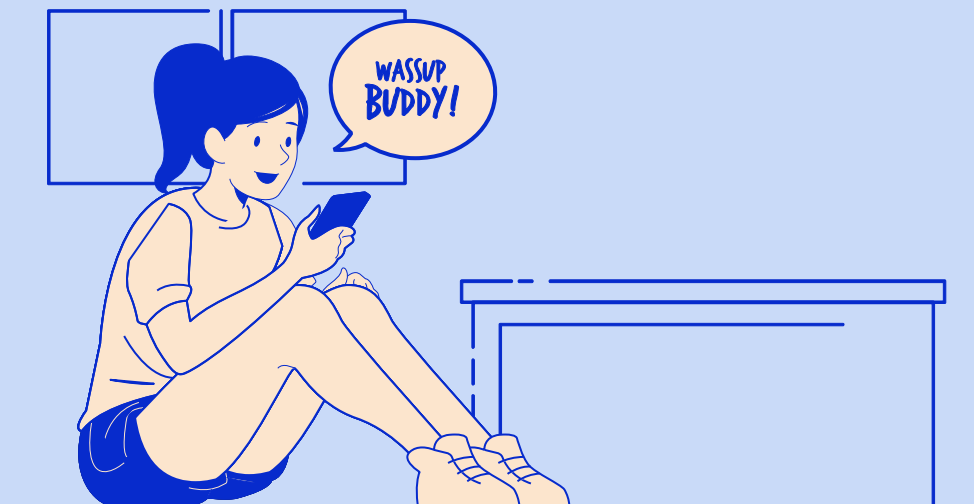


6,000

Neptune is the farthest planet from the Sun



ALTERNATIVE RESOURCES



150,000

Big numbers catch your
audience's attention

AUDIENCE DEMOGRAPHICS

GENDER



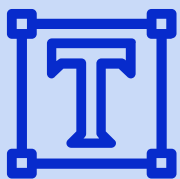
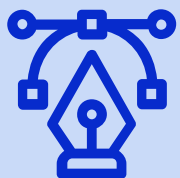
60%



40%

AUDIENCE DEMOGRAPHICS

INTERESTS



AUDIENCE DEMOGRAPHICS

AGE

25 - 35



36 - 45



46 - 55

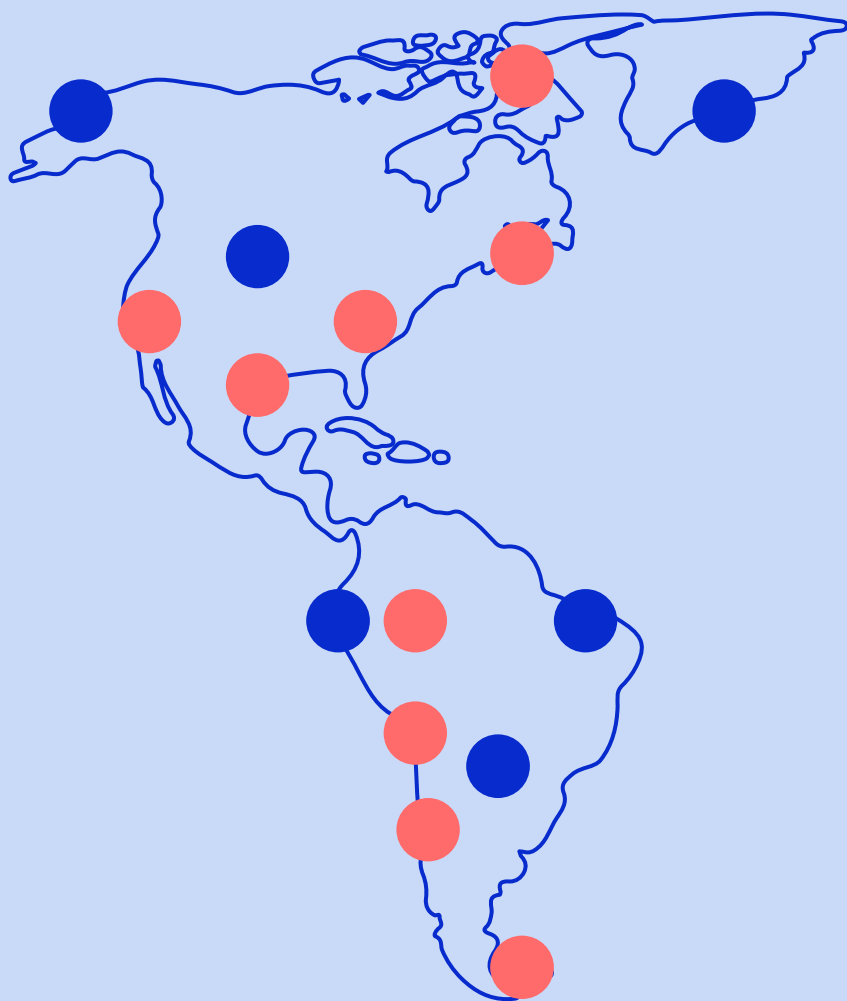


56 - 65



AUDIENCE DEMOGRAPHICS

LOCATION



MERCURY



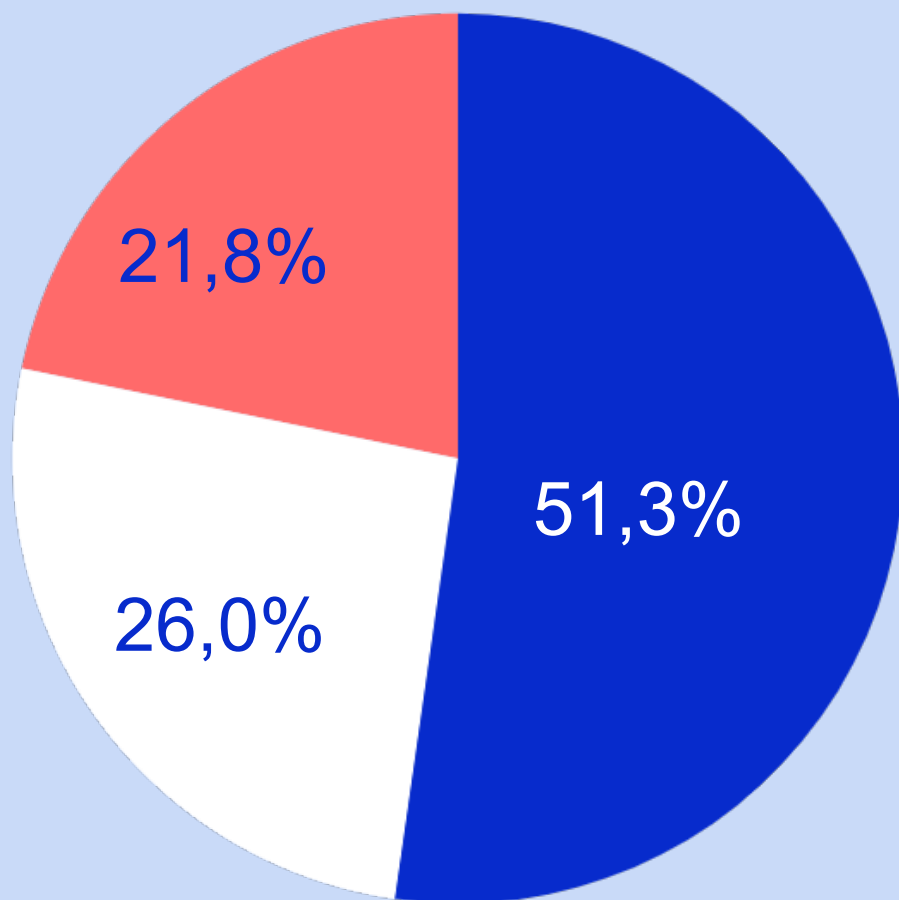
It's the closest
planet to the Sun

JUPITER



Jupiter is the
biggest planet

CONTENT TO CREATE



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VENUS



Venus has a beautiful name

MERCURY



It's the closest planet to the Sun

EARTH



It's the third planet from the Sun

BUYER PERSONA



AGE: 25 - 35

GENDER: Female

STUDIES: Degree in Advertising

LOCATION: Madrid, España



BUYER PERSONA

JOB: Publicist

INCOME RANGE: \$1500

MARITAL STATUS: Single

● Motivations

● Behavior

● Personality

● Interests

HOBBIES: Social media



15%



55%



30%

ANALYZING THE COMPETITION



MARS

Despite being red, Mars is
a cold place full of iron



VENUS

Venus has a beautiful name
and is the second planet



NEPTUNE

Neptune is the farthest
planet from the Sun

KPI OVERVIEW

20,000

TOTAL
LEADS

This month

110,000

NEW
CUSTOMERS

This month

8,000

SALES-
READY LEADS

This month

\$ 13,000

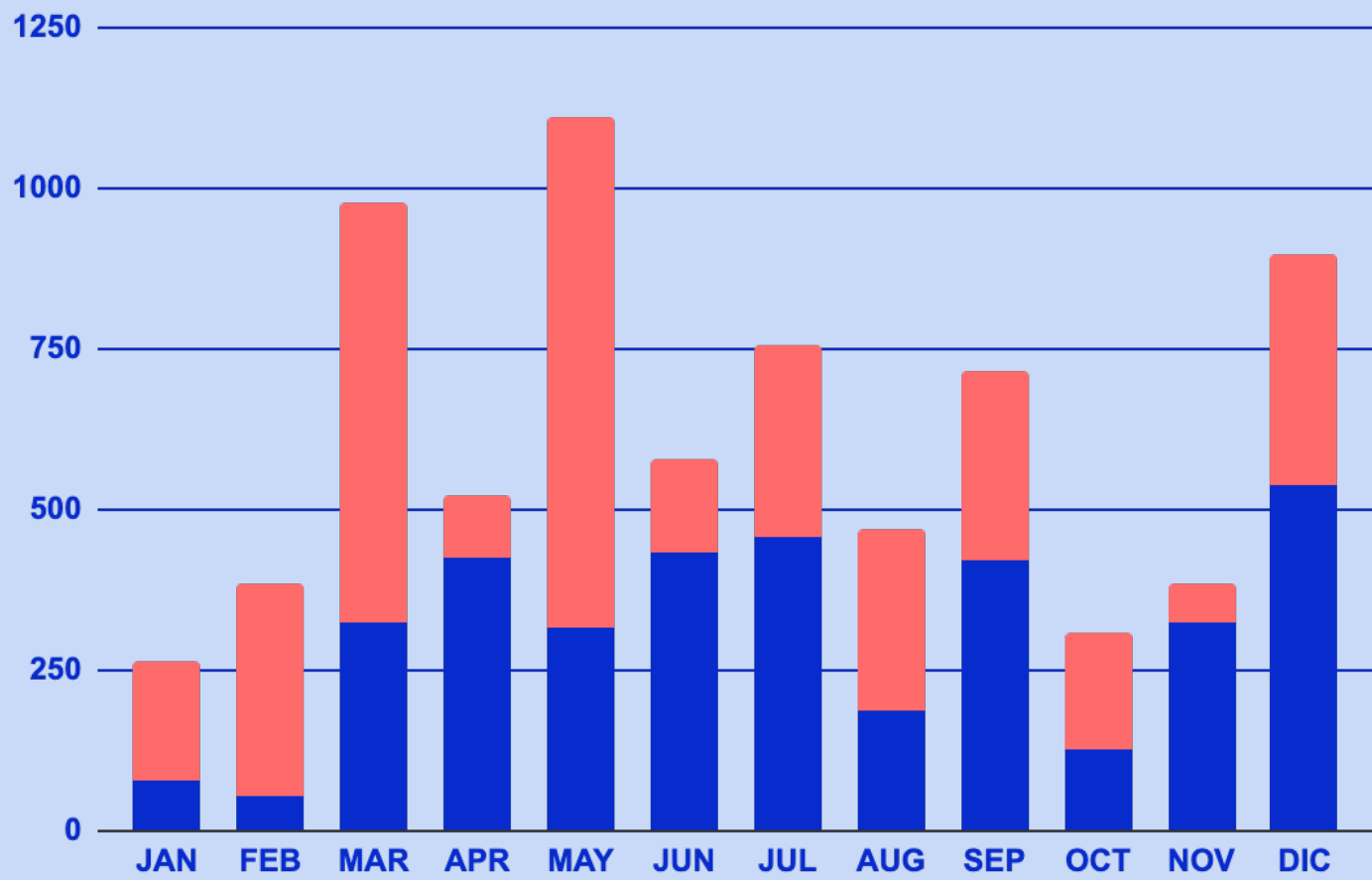
NEW
REVENUE

This month

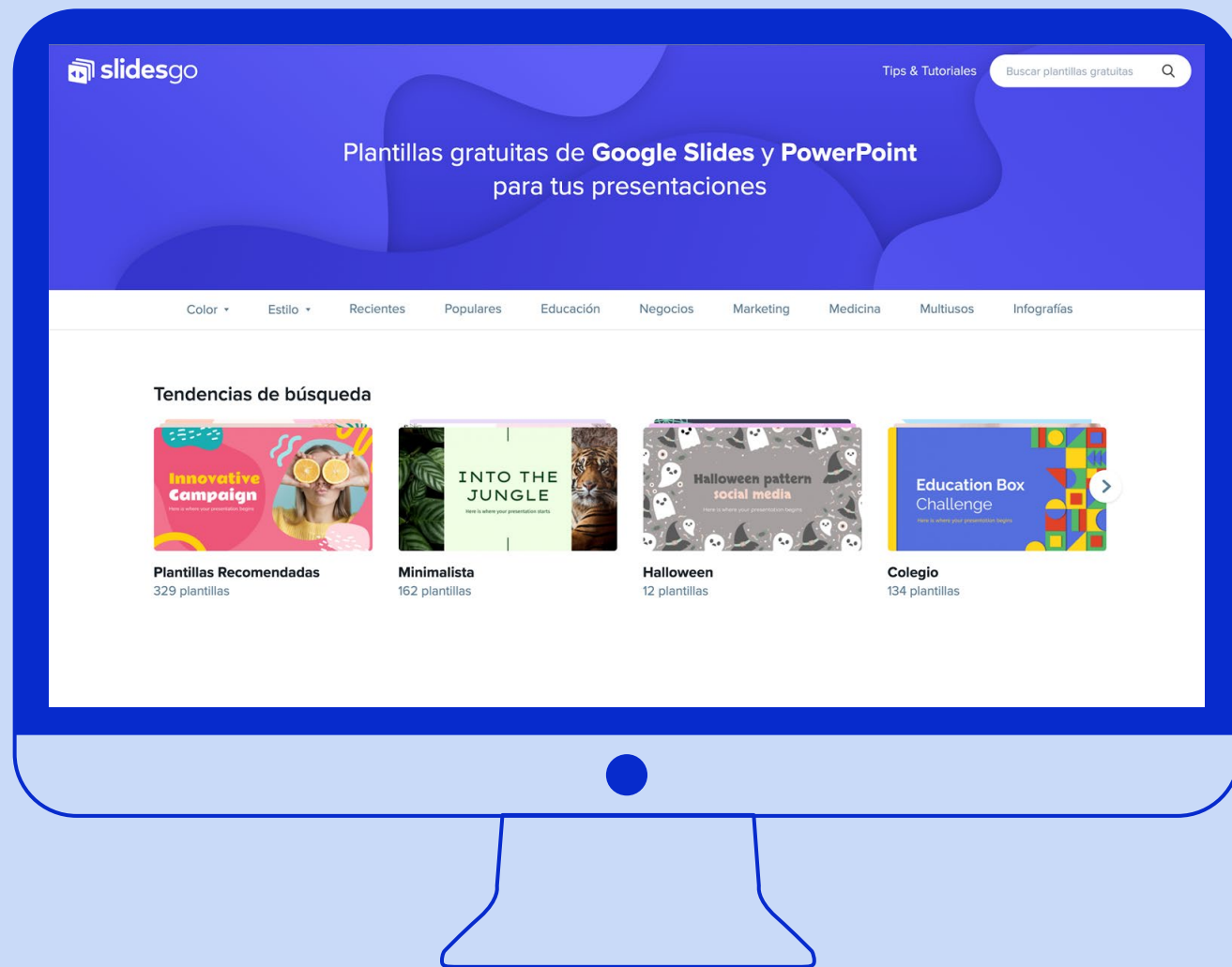
KPI OVERVIEW

● MERCURY
It's the closest planet to the Sun

● JUPITER
Jupiter is the biggest planet



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A blue rounded square color swatch.

#072bcc

An orange rounded square color swatch.

#fce5cd

A red rounded square color swatch.

#ff6a6a

A white rounded square color swatch.

#ffffff

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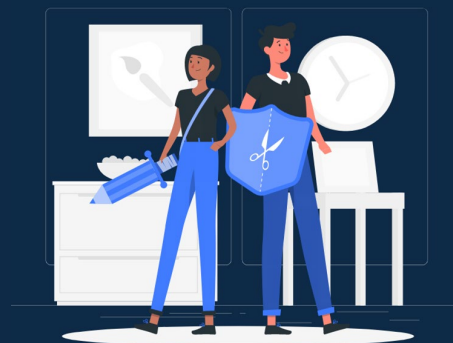
Pana



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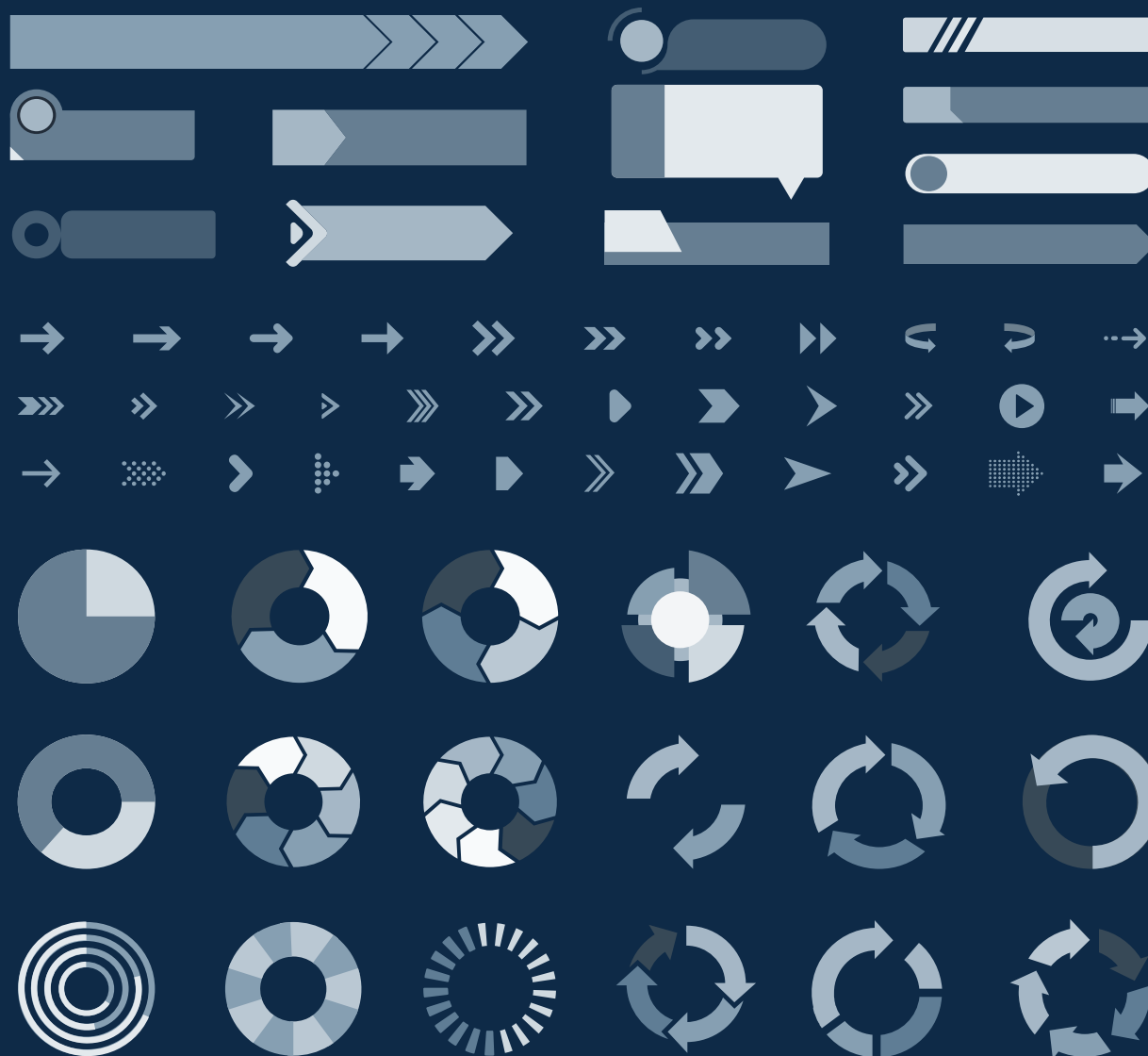
Rafiki



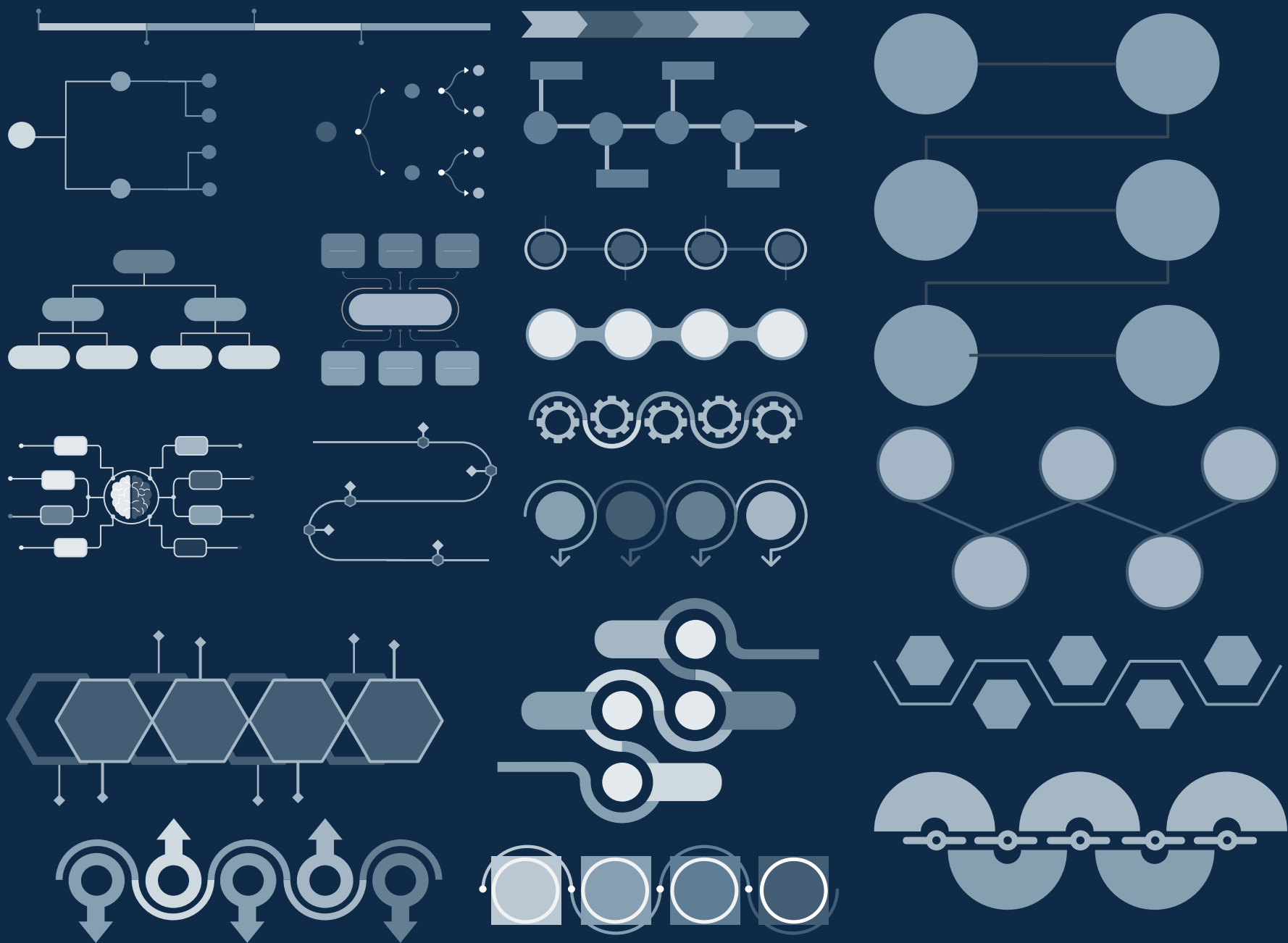
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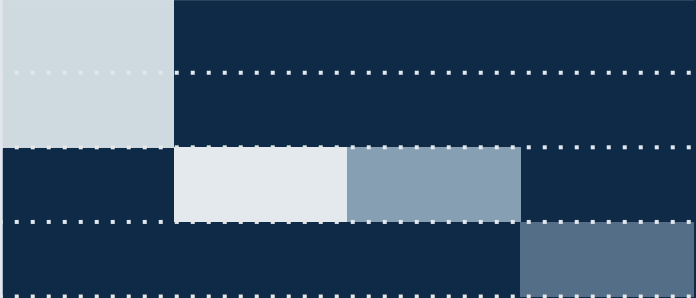
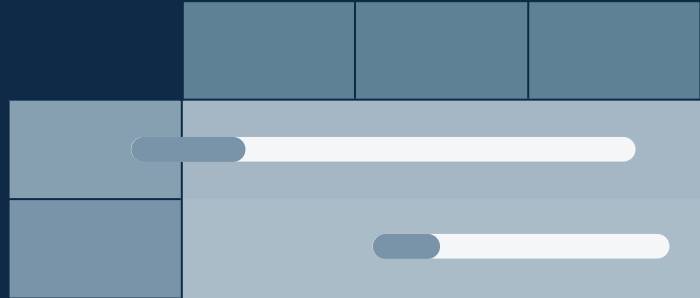
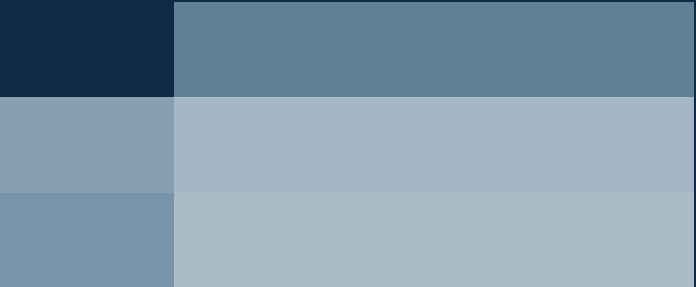
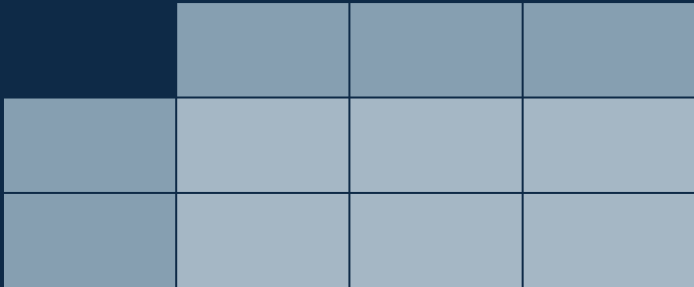
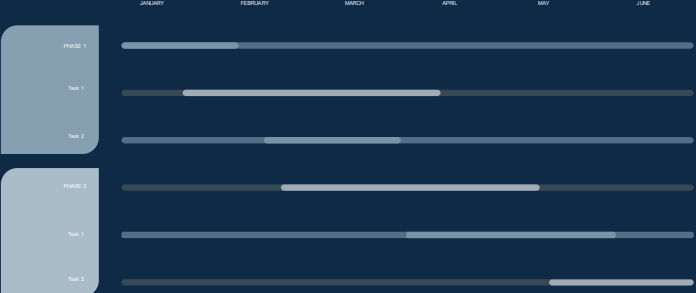
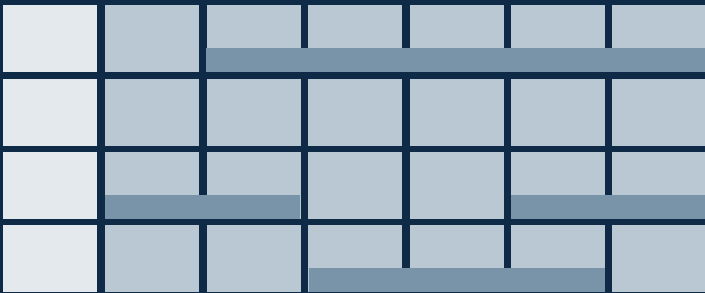
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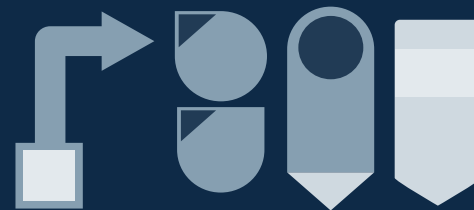
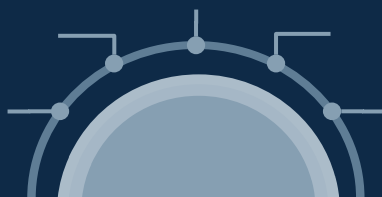
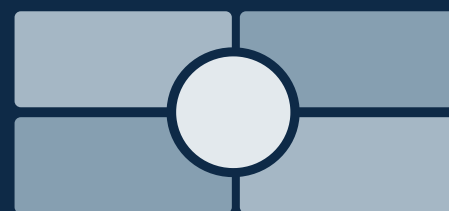
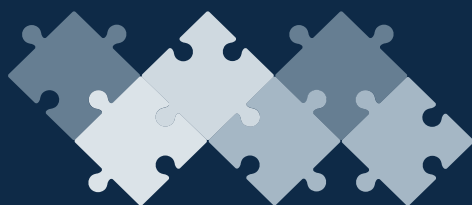
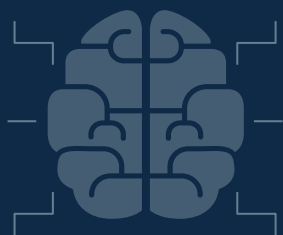
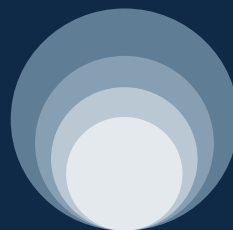
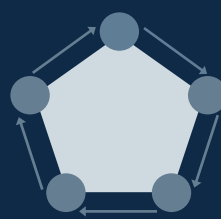
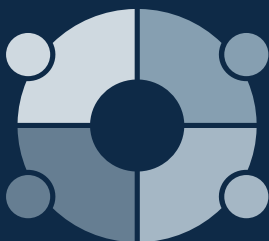
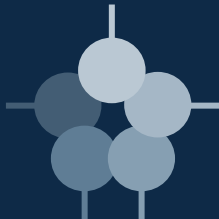
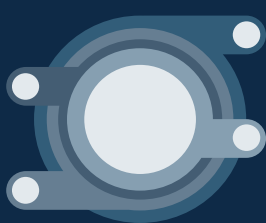
You can easily [resize](#) these resources without losing quality. To [change the color](#), just ungroup the resource and click on the object you want to change. Then, click on the paint bucket and select the color you want. Group the resource again when you're done. You can also look for more [infographics](#) on [Slidesgo](#).

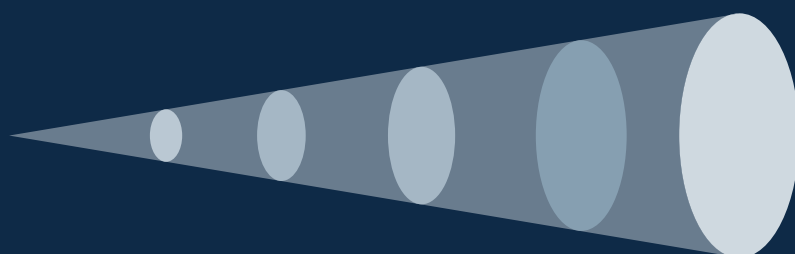
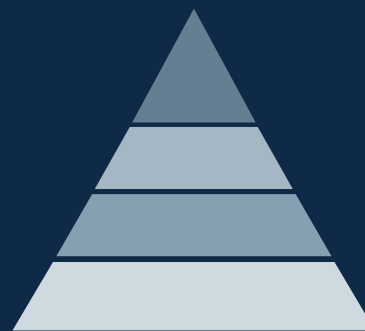
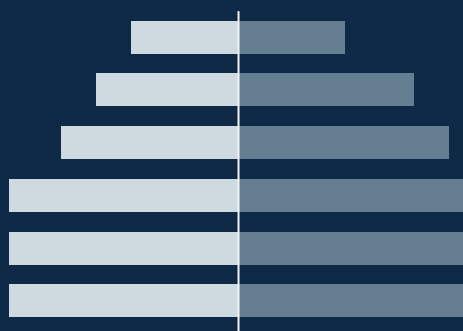
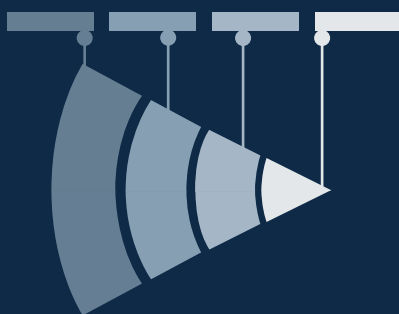
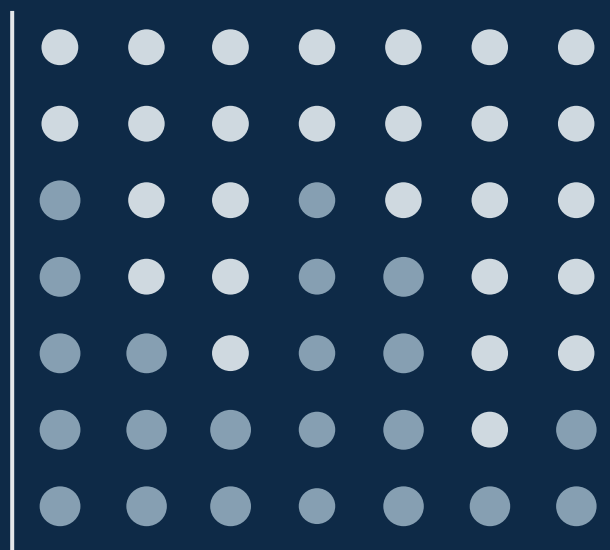
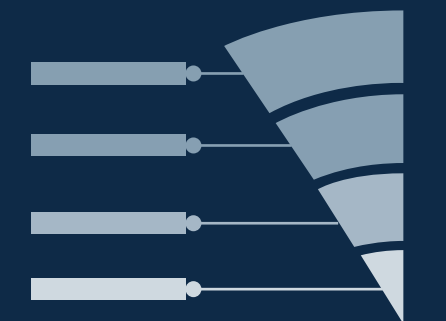
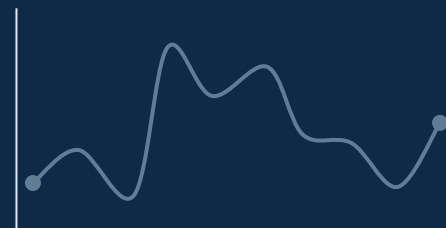
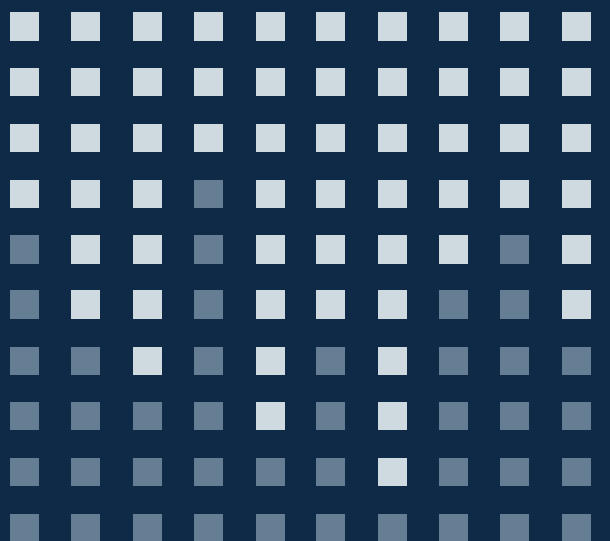












...and our sets of editable icons

You can resize these icons without losing quality.
You can change the stroke and fill color; just select the icon
and click on the paint bucket/pen.

In Google Slides, you can also use Flaticon's extension,
allowing you to customize and add even more icons.



Educational Icons



Medical Icons



Business Icons



Teamwork Icons



Help & Support Icons



Avatar Icons



Creative Process Icons



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Nature Icons



SEO & Marketing Icons

