



Linda Castañeda
University of Murcia



gesting, ng and alogue:

A lens for learning
in a connected world

LINDA



UNIVERSIDAD
DE MURCIA

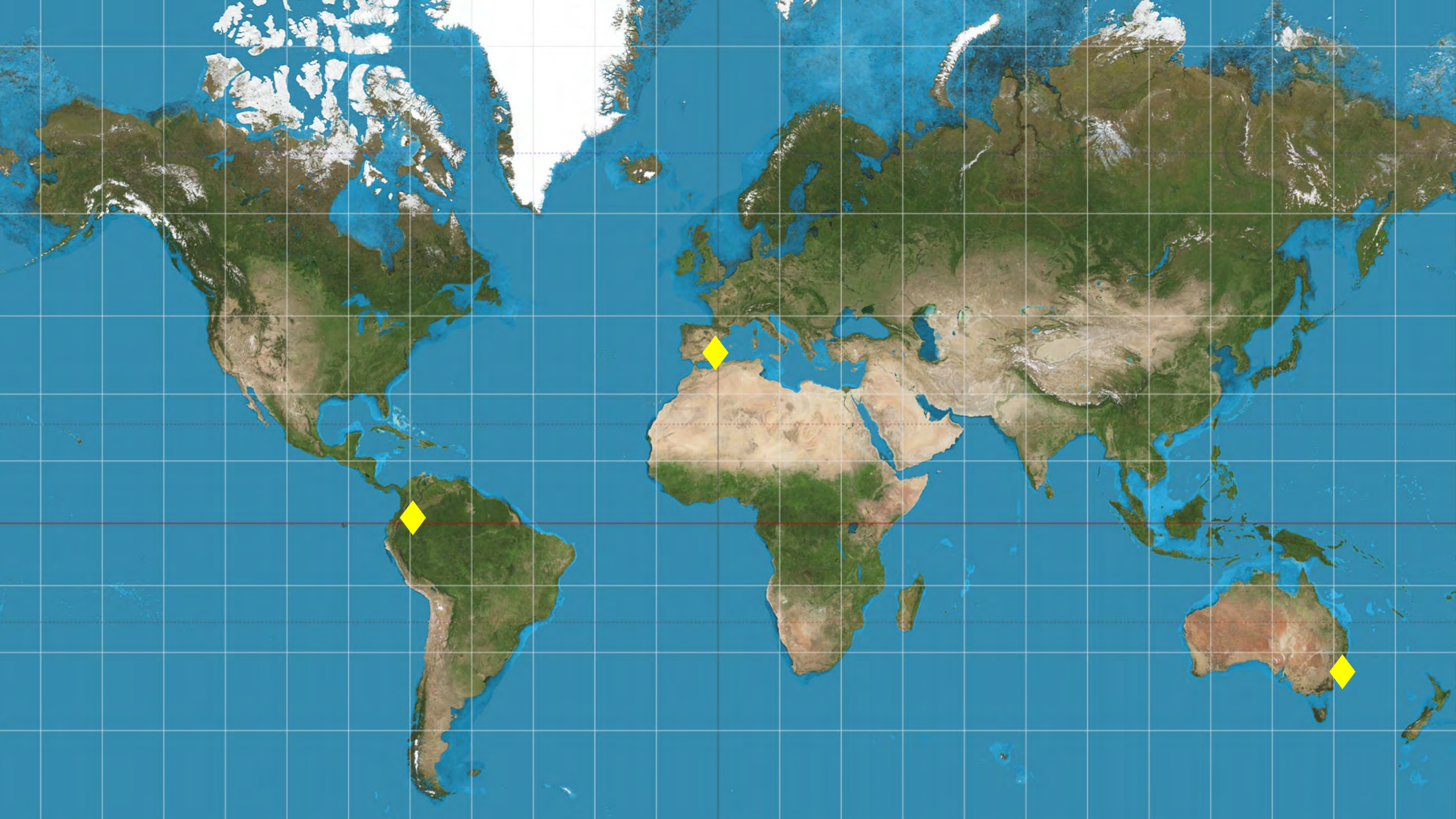
CASTAÑEDA

34K









FOUR SEMINARS.

FOUR INSTRUMENTS
FOR SEEING
EDUCATION
DIFFERENTLY.

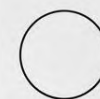
EDUCATIONAL OPTICS

FOUR INSTRUMENTS FOR SEEING
AND SHAPING LEARNING SPACES

SYDNEY · JULY–SEPTEMBER 2026



PRISM



LENS



MIRROR

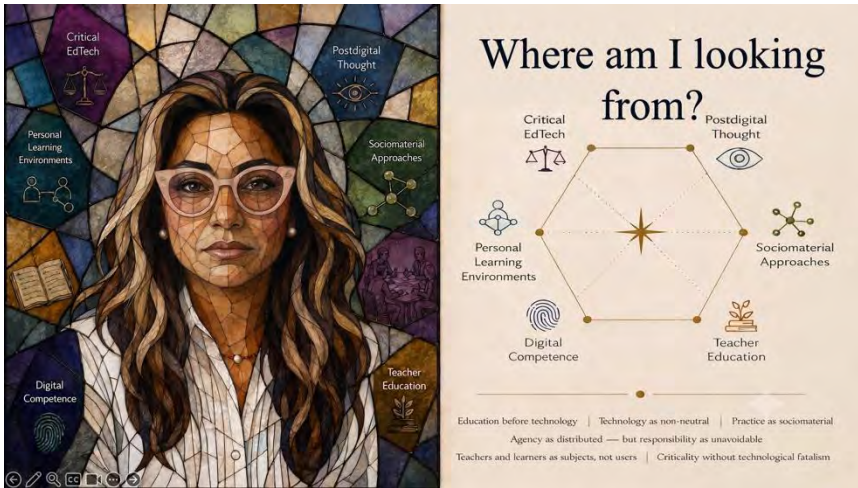


TELESCOPE

WHAT

HAS

SHAPED





¿QUE ES

EDUCAR

A LA

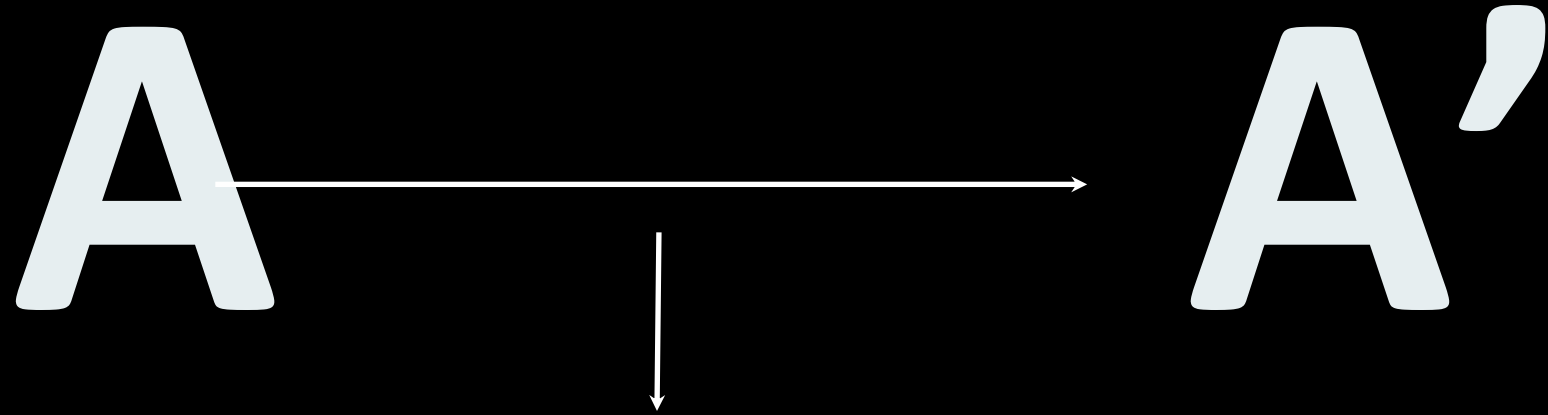
GENTE?

LEARNI

NG

MEANS

Improving



New & valuable Information source

**Family + local network +
info – source (book/ master)**

Family
+ local network
+ info sources

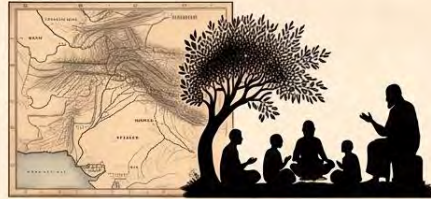


Sages and Stones: A Global Timeline of Ancient Higher Education

While Western history often marks the birth of higher education with 12th-century European universities, a global perspective reveals a rich, ancient landscape of institutionalized learning. From the decentralized guru-led clusters in Taxila to the residential brick campus of Halanda and the rigorous state-run Calmécac of the Mexica, civilizations worldwide developed structured systems for training their religious, political, and scientific elites. These institutions were more than just classrooms; they were the "intellectual engines" of their respective societies, featuring sequenced curricula, hierarchical teaching bodies, and specific rituals of transition.



Foundations of the Ancient World (6th Century BC – 3rd Century AD)



6th Century BC: Taxila (Gandhara, modern Pakistan)
A decentralized network of autonomous masters teaching medicine (Aynveda), grammar, and politics in private homes or under the shade of trees.



387 BC: Plato's Academy (Athens, Greece)
Founded as a private philosophical circle focused on dialogue and mathematics, centered in an open-air olive grove outside the city.



3 AD: Taixue (Han Dynasty, China)
An imperial state academy established specifically to train officials and scholars for the central government apparatus.



3rd Century AD: Academy of Gundishapur (Sassanid Persia)
Emerged as a preeminent medical and scientific center, bridging Western and Eastern intellectual traditions.



The Rise of the Residential Campus (4th Century – 10th Century AD)



330 AD: Ethiopian Monastic Schools (Aksum/Tigray)
A highly resilient system focusing on biblical exegesis and Greek literature, these schools have maintained institutional continuity for over 1,800 years.



427 AD: Nalanda (Bihar, India)
Considered the first true residential university campus, it featured 9-story libraries and housed 10,000 students in a massive brick complex.



859 AD: Al-Qarawiyin (Fes, Morocco)
Founded by Fatima al-Fihri, it is recognized as the oldest continuously operating degree-granting institution in the world.



970 AD: Al-Azhar (Cairo, Egypt)
Established a faculty structure for jurisprudence and theology that preceded European university systematization by centuries.



Guilds and Empires (12th Century – 16th Century AD)



1134 AD: University of Salamanca (León, Spain)
Originating from cathedral schools, it became a "studium generale" representing the European guild-based model of higher learning.



1345 AD: The Calmécac (Tenochtitlan, Mexico)
A state-run Aztec institution for the nobility, focusing on astronomy, calendar interpretation, and military discipline.



1350 AD: Yachaywasi (Cusco, Inca Empire)
The "House of Knowledge" where amantés (sages) taught the elite for four years in Quechua, quipu-reading, and imperial history.



Structural Comparisons



Column



Entry/Exit Rituals



State/Imperial Link



Duration/Levels



Yachaywasi

Husachico Ceremony

High (State-run)

4-year sequence



Calmécac

Discipline-based

High (State-run)

Age 6 to 15+



Nalanda

Monastic

Religious

Multi-level



Ethiopian Schools

Competency-based

Ecclesiastical

5+ levels



Taxila

Informal/Personal

Low (Decentralized)

Master-dependent





Family
+ local network
+ info sources

Ancient centers of higher learning

Institutionalized advanced education before the medieval university



Calmecac

Mexico, 14th-16th c.
Aztec elite
academy



Yachaywasi

Cusco, from 1350
Inca house of
knowledge



Ethiopian church schools

Ethiopia, medieval-today



Al-Qarawiyyin

Fez, from 9th c.
Islamic center
of learning



Nalanda

India, 5th-12th c.
Buddhist monastic
university



Taixue

China, from 3 CE
Imperial
academy



Gundishapur

Persia, 3rd c.
Academy and
medical center

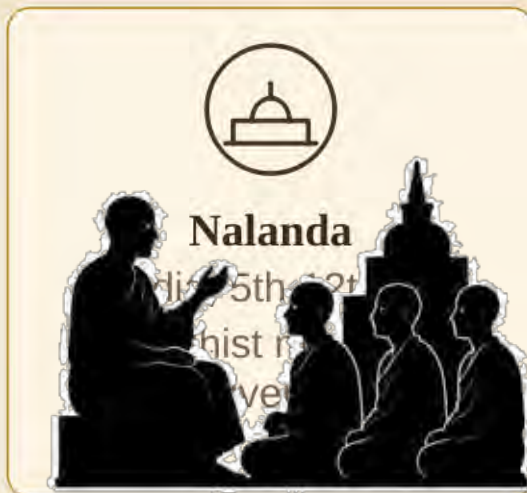


Museion of Alexandria

Egypt, from ca. 285 BCE

Ancient centers of higher learning

Institutionalized advanced education before the medieval university



**We thought access was the
problem.**

Digital World





myWebCT

myWebCT Resume Course Course Map Check Browser Log Out Help

Course Menu

- Homepage
- Content
- Discussions
- Mail
- Assignments
- Chat
- Grade Book
- Student Tools

Homepage

Welcome to Psychology 101

Announcements

- Chapter 3 notes are online.
- Discussion board topic posted.
- Assignment 1 due next week.

Course Contents

- Syllabus
- Course Schedule
- Readings
- Assignments
- Resources

Moodle

Dashboard Site home Calendar Private files My courses Introduction to Psychology Psychology Statistics 101 Research Methods Site administration

Course overview

All (except removed from view) Course name

Introduction to Psychology

0% complete

Statistics 101

0% complete

Research Methods

0% complete

All courses

Sakai Home Sites AK

OVERVIEW

Recent Announcements

Welcome to PSY101
Posted by: Instructor

Please introduce yourself in the discussion.
Syllabus is now available.

- Instructor

more...

Messages

No new messages

Upcoming Events

• Assignment 1 due	Mar 20
• Quiz 1	Mar 27

View calendar

LRN

Course Tools Announcements Content Collection Assessments Discussions Mail Chat Calendar Grades

My Courses

Introduction to Sociology

Announcements

Welcome to the course!
Please review the syllabus.
First discussion topic is posted.

Content Areas

- Syllabus
- Readings
- Lecture Notes
- Assignments
- Discussions
- Multimedia



KOLOBRZEG

BALTLANTA
LIETUVA +370-6-540667

GAISMA

KLINTHOLM

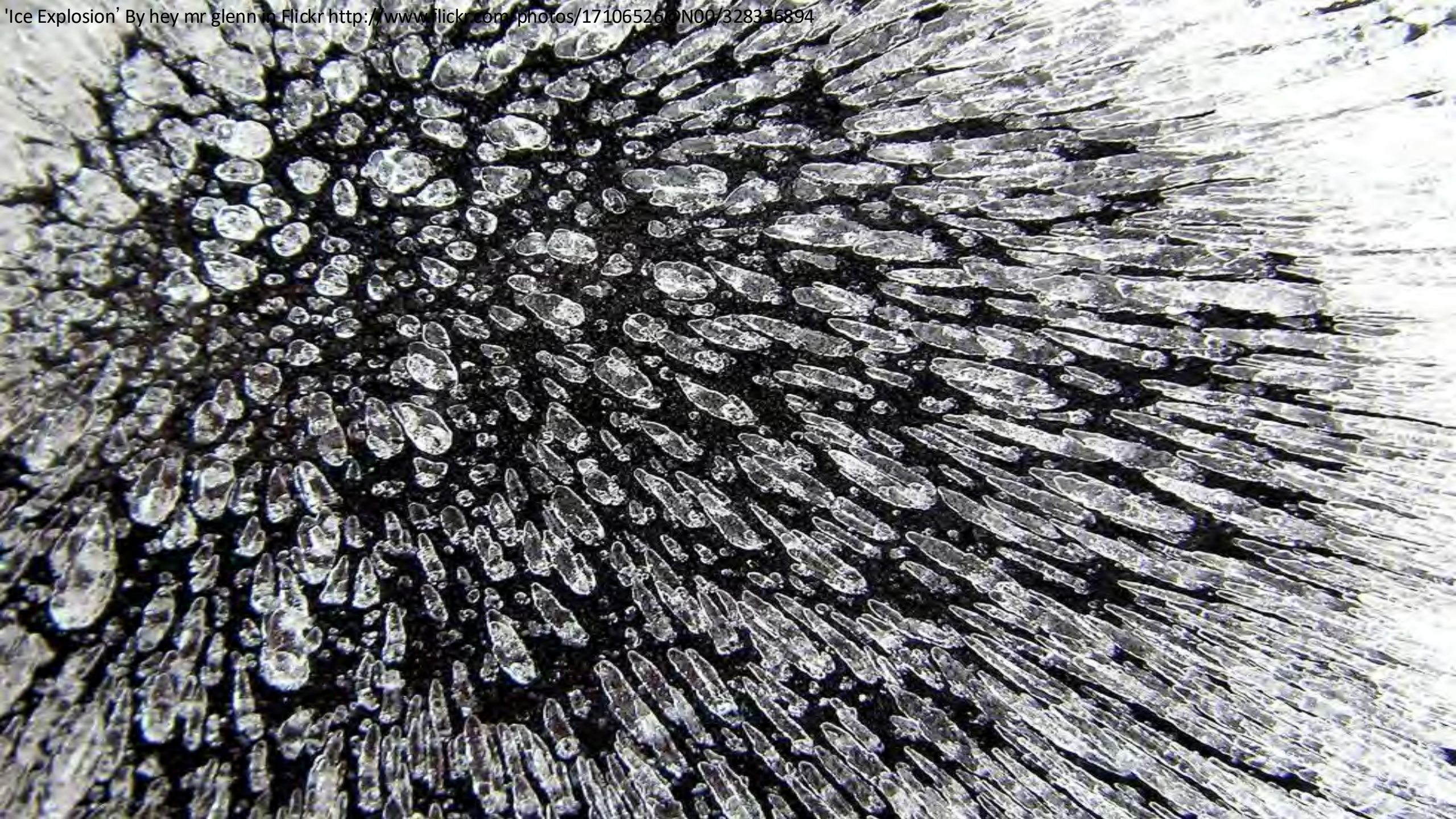
WIDDELLET
TEL. +45-5049257

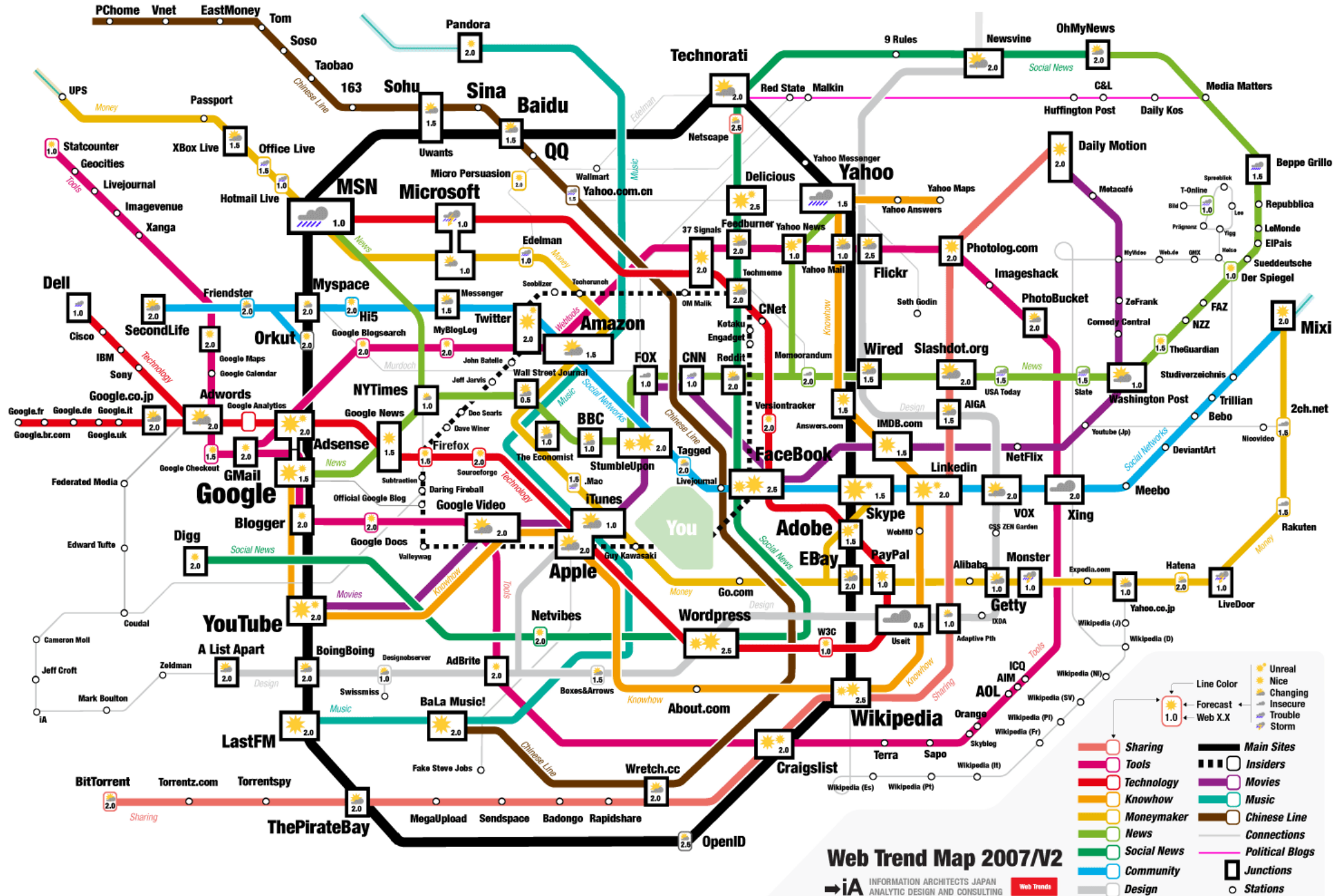
O. V. JORGENSEN

OKT

OKT

OKT





**We thought abundance was
the problem.**

PL

personal
learning
environ
ments

mystart.example/dashboard

☐ My webmix



Search



Mail



News



Weather



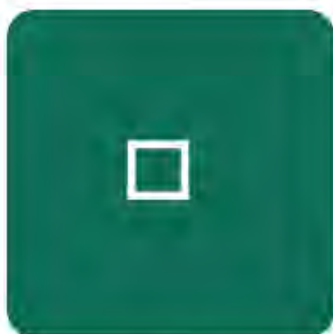
Video



Social



Docs



Music



Calendar



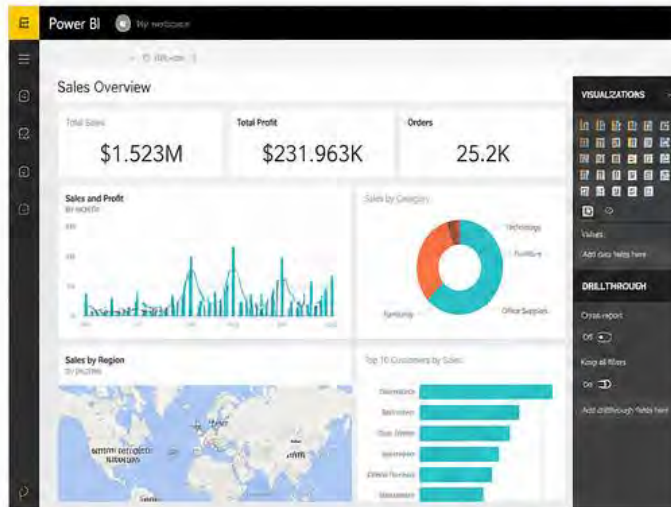
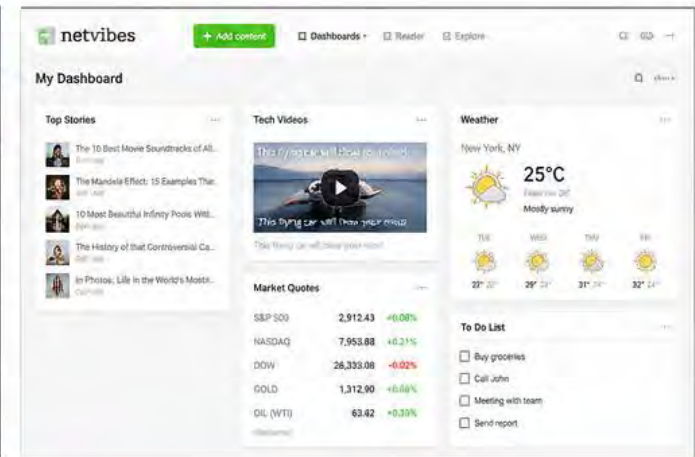
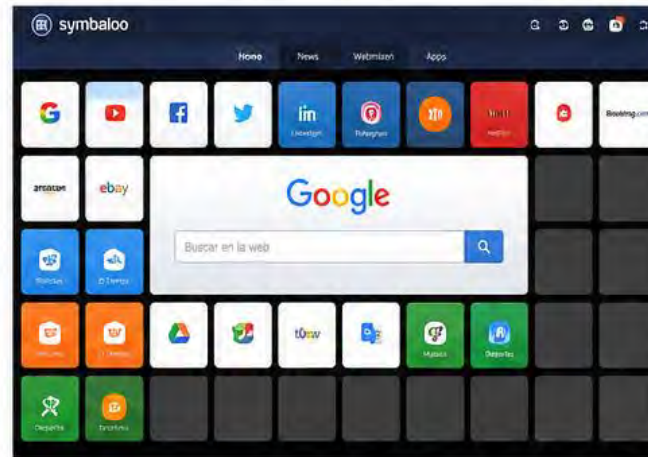
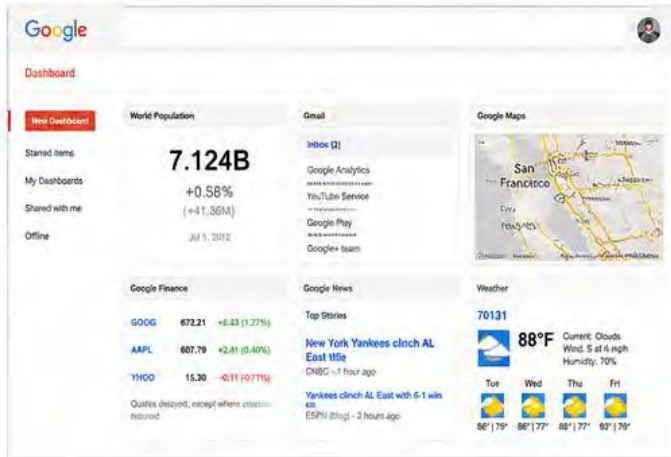
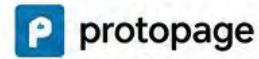
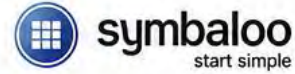
Analytics



Notes



Add tile



**We thought connection
was the opportunity.**

"(...) a collection of tools, brought together under the conceptual notion of openness, interoperability, and learner control. As such, they are comprised of two elements - the tools and the conceptual notions that drive how and why we select individual parts. PLEs are a concept-entity."

"The PLE is an approach not an application."

OPENNESS · LEARNER CONTROL · AUTONOMY · INTEROPERABILITY · NETWORKS · MULTIPLE CONTEXTS · PERSONAL LEARNING

Personal Learning Networks (PLNs) are all about using web tools such as blogs, wiki, twitter, facebook, to create connects with others which extend our learning, increases our reflection while enabling us to learn together as part of a global community."

"Whilst PLEs may be represented as technology, including applications and services, more important is the idea of supporting individual and group based learning in multiple contexts and of promoting learner autonomy and control (...) Personal Learning Environments offer both the framework and the technologies to integrate personal learning and working."

PL

personal
learning
environ
ments

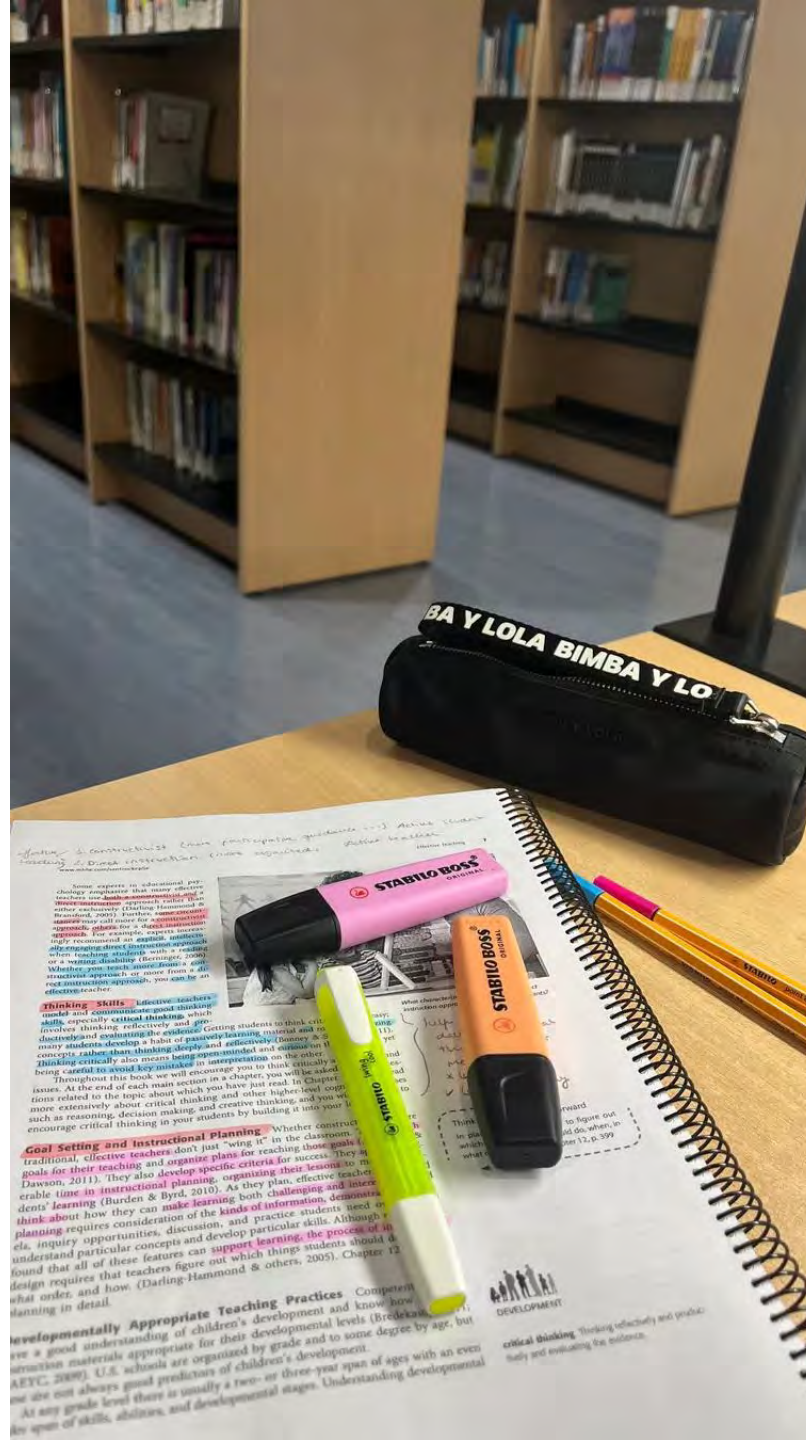
personal

personalized

PLE was never a platform

**THE WAY WE
LEARN**

**Where does
your learning
happen?**





UNIVERSITY LIBRARY

1. What do you value in this learning space?

In this learning space I value **silence, respect between students**, the great **environment that helps you to be focused** and its good and modern facilities.

2. How do you think this space affects your learning?

This space affects my learning positively **because I can be focused in my studies without any distraction or noises**. Also, I feel very comfortable studying and doing my homework here because when I am at my room studying or doing homework the majority of the times I get distracted.

3. The Activity

I was reading and understanding the booklet I printed about Educational psychology because I want to start reviewing some contents we learnt in class. Specifically I was reading the main characteristics of an effective teacher.

4. the three most significant elements

- My **highlighters**: it makes me understand better the texts making them more visual and letting me giving more importance to some concepts.
- The **silence**: essential for me to study and to make tasks faster and more focused.
- **Students**: Regarding other students focused in their work makes me keep motivated. Sometimes I go with friends to help each other and learn from them.

CADENETA

Tejer una cadeneta base no es especialmente complicado, así que puede centrarse en tratar de que le quede homogénea. Al fin y al cabo, será el cimiento de su labor.

Nudo corredizo:



1 Forme un bucle con el hilo a unos 10 cm del extremo. La hebra de trabajo, es decir, el hilo unido a la madeja, está en la parte inferior.



2 + 3 Introduzca el ganchillo en el bucle, agarre la hebra superior y pásela por el bucle mientras tira de la hebra de trabajo, procurando que el hilo no quede demasiado apretado alrededor de la aguja.



4 Si lo desea, también puede hacer el nudo corredizo con los dedos.



1 Al tejer la cadeneta base, procure tensar el extremo del hilo con el pulgar y el dedo corazón de la mano izquierda. A continuación, coja la hebra con el ganchillo.



2 Gire el ganchillo para que la hebra quede atrapada en el gancho y hágala pasar por la lazada de la aguja.



3 Repita esta operación tantas veces como puntos sean necesarios. Mientras teje, sujete la cadeneta hecha entre el pulgar y el dedo corazón para mantener la tensión. Procure que todos los puntos de la

cadeneta tengan el mismo tamaño. Si quedan demasiado apretados ni sueltas, o si se demasiado apretados, la primera hilera de la labor se abombará hacia afuera; si están demasiado sueltos, los puntos de la hilera siguiente quedarán muy ceñidos.

Siempre que necesite tejer una cadeneta muy larga al inicio de una labor, puede trabajar muchos puntos tranquilamente sin contarlos. No se preocupe si hace demasiados; es fácil deshacerlos.

CADENETA DE VUELTA

Además de para crear la cadeneta base, las cadenetas también se tejen con otra función especial. Se añaden al final de cada hilera para alcanzar la altura de los puntos que componen la hilera siguiente. Si renuncia a tejer estas cadenetas, el tejido se resentirá y se deformará, tirando de los bordes. Por tanto, estas cadenetas son las responsables de que los bordes queden rectos. En muchas instrucciones, se indica cuántas cadenetas de vuelta son necesarias para realizar el patrón. Generalmente, la cantidad depende del tipo de punto que se trabajará en la hilera siguiente, es decir, necesitará menos cadenetas si continúa con punto bajo que si lo hace con punto alto doble. Estas cadenetas suelen contarse como el primer punto de la hilera siguiente, excepto si trabaja solo a punto bajo. En la tabla de la página siguiente, se detalla la función de las cadenetas que se precisan para cada tipo de punto y se especifica en qué punto se introduce el ganchillo al iniciar una nueva hilera.

El último punto de una hilera se cuenta como el ganchillo en la última cadeneta de la hilera anterior.



1 Si se teje a punto alto, se necesitan tres cadenetas de vuelta. Si estas cadenetas cuentan como primer punto, para hacer el siguiente debe introducir el ganchillo en el quinto punto desde la aguja.

CONTAR PUNTOS

El ganchillo debe introducirse en el quinto punto desde la hilera anterior para los puntos de la hilera siguiente.



LEARNING CROCHET

1. What do you value in this learning space?

In this learning space I value having materials for learning crochet and the possibility of learn it in my room.

2. How do you think this space affects your learning?

Crochet helps me because I feel calm and it makes me clear my mind by focusing on that completely. I think it helps my learning because it allows me to have time for myself and do what I like, which makes me be in a better mood and be motivated to dedicate time to it.

3. The Activity

I was just reviewing how to do basic chain stitch because I didn't remember very well how to do it... ..In addition, I learnt to hold the crochet needle the right way.

4. the three most significant elements

Good lighting: I always crochet in my room where I can see very well and clearly what I am working on.

Crochet needle: essential tool to crochet. I have got so many sizes to crochet with threads of different thicknesses.

Music: when I crochet I always listen to pop music because it makes me feel more engaged and happy.





THE BEACH IN MY TOWN

1. What do you value in this learning space?

In this learning space I value the feeling of coming home to stay with my family and friends. Moreover, I feel with more energy because of the sun rays when I go to the beach in my town.

2. How do you think this space affects your learning?

This space gives me the chance to learn about nature and for me it works like a kind of therapy because when I stay there I feel better and it helps me to reflect calmly.

3. The Activity

I was going for a walk with my parents and my sister because every weekend we spend time together when it is sunny. Here I learn to appreciate the time I spent with my family and to enjoy with them doing this healthy activity.

4. the three most significant elements

- The waves:** the waves give me peace and help me to relax because of their sound.
- Marine animals:** I always pay attention when I am at the beach to watch the different kind of species and to learn about them.
- Sand:** I really like the sand because when summer hasn't arrived yet I love walking on it making me nostalgic about last summers.

PERSON TWO

HORIZONTES
DE MODERN





MY DESKTOP

1. What do you value in this learning space?

my PC is the key of this space. I have everything I need there: from university materials to entertainment multimedia such as music or videogames.

2. How do you think this space affects your learning?

This space makes me feel comfortable while doing my tasks as it makes everything more bearable. Having a quick access to everything I need in the comfort of my rooms has a positive impact in my learning

3. The Activity

In this space I do many things such as reading, researching or writing notes for class. I learn about my university subjects and my hobbies.

4. the three most significant elements

- PC: As I said before, is the key aspect of this space. Is where I have everything I need for my personal and academic use.
- Window: Having access to natural light just in front of my work space makes me feel awake and has a positive impact on my mood
- Headphones: Thanks to my headphones I can listen to music while doing my tasks, making them much bearable. I also feel that I work better with music rather than without it..





MY MUSICAL SPACE

1. What do you value in this learning space?

(apart from the piano itself) the calm that having my piano in my bedroom gives me. I can play whenever I want without having someone telling me that I am bothering them.

2. How do you think this space affects your learning?

This space helps me developing my hand coordination, musical knowledge and rithmic skills. It also helps me relaxing when I am stressed.

3. The Activity

In this space I don't only play the piano but I also learn to read sheet music and study music theory.

4. the three most significant elements

Piano: The piano is the key element of my musical space. It is what allows me applying the theoretical contents I learn to the practical dimension.

Posters: Even though it may seem like it is no big deal, having little posters of my favourite musical albums helps me keep motivated to continue playing piano when I feel tired or disengaged.

Window: Having access to sunlight and makes me feel awake and has a positive impact on my mood.



LOCAL	DEPORTE	VISITANTE
	PERIODO	
FALTAS	ADICIONALES	FALTAS

la boca te lla
MÁS QUE SOCIOSALUD

Nutriban
tu centro de nutrición

AGE2
infraestructuras TI



VOLEIBALL TRAININGS

1. What do you value in this learning space?

the team spirit that is always present when training with my friends. We help each other and provide support to those who feel demotivated when committing a mistake.

2. How do you think this space affects your learning?

better health and psysique. Moreover, when playing volleyball I am constantly learning new things as I feel that I still have a long journey until becoming a mediocre player. This makes me feel encouraged to keep playing and getting better everyday.

3. The Activity

I learn concepts related to the sport itself and my position as a "3". Moreover, playing volleyball helps me developing my sense of team spirit as well as my social skills as I am always meeting new people that share my interest in volleyball.

4. the three most significant elements

Teammates

Volleyball net

Volleyball

•.



KOLOBRZEG

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GAISMA

KLINTHOLM

WIDFELLET
TEL. +45-5049257

O. V. JORGENSEN

OKT

OKT

OKT

**Learning has always been less
*obedient***

a colleague

a question
a suggestion
a challenge



a book

an idea
a perspective
a reference



a mistake

unexpected,
revealing,
formative



years of practice

repetition,
reflection,
improvement

a course

structure,
guidance,
feedback



an experiment

trying out,
observing,
learning



a community

belonging,
exchange,
support



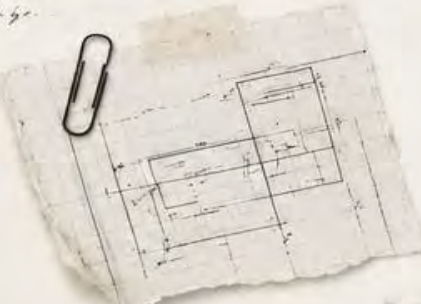
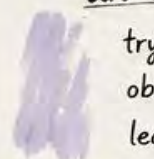
a conversation

new angles,
connections,
energy



a video

a demonstration,
an explanation,
inspiration



Basic form
the to be observed
character of the object
is not the object
itself but the way
it is perceived
by the observer
the observer's
position and the
conditions of
observation are
essential for
the understanding
of the object
the object is not
in itself but in
the relation to
the observer
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the observer

Institutions **People**
organise **organise**
teaching ***learning***



LEARNING

ORGANISED

As if
learning
were simple. /

NOT

DELIVERED.

a colleague

a question
a suggestion
a challenge



a book

an idea
a perspective
a reference



a mistake

unexpected,
revealing,
formative



years of practice

repetition,
reflection,
improvement

a course

structure,
guidance,
feedback



an experiment

trying out,
observing,
learning



a community

belonging,
exchange,
support



a conversation

new angles,
connections,
energy



a video

a demonstration,
an explanation,
inspiration



Handwritten notes in a cursive script, partially obscured by other elements.

Handwritten notes in a cursive script, partially obscured by other elements.



INGESTING

DIGESTI

Not just consuming

NG

DOI

ria

DOING

Not just producing

DIALOG

personal learning NETWORKS

—

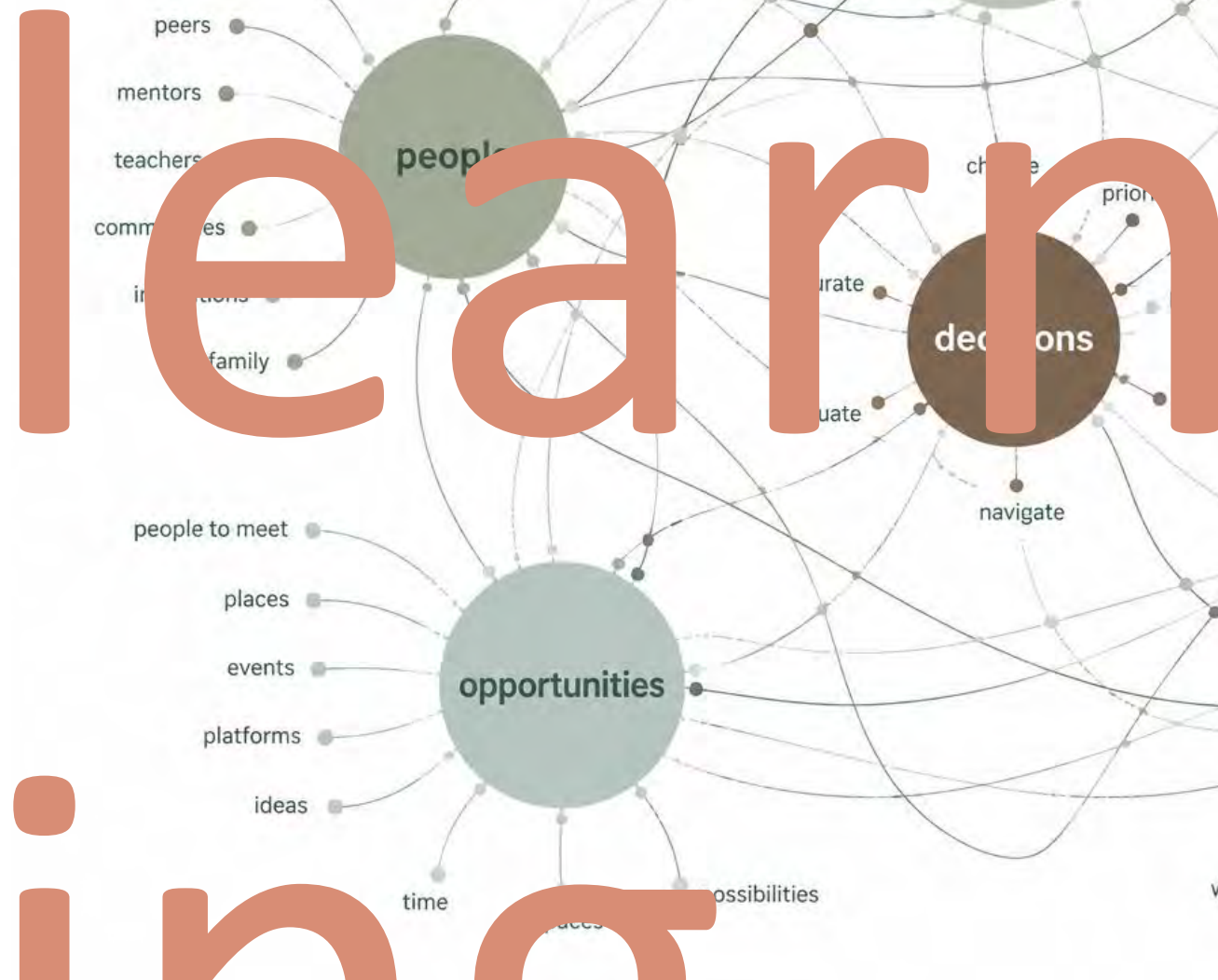
DIALOG

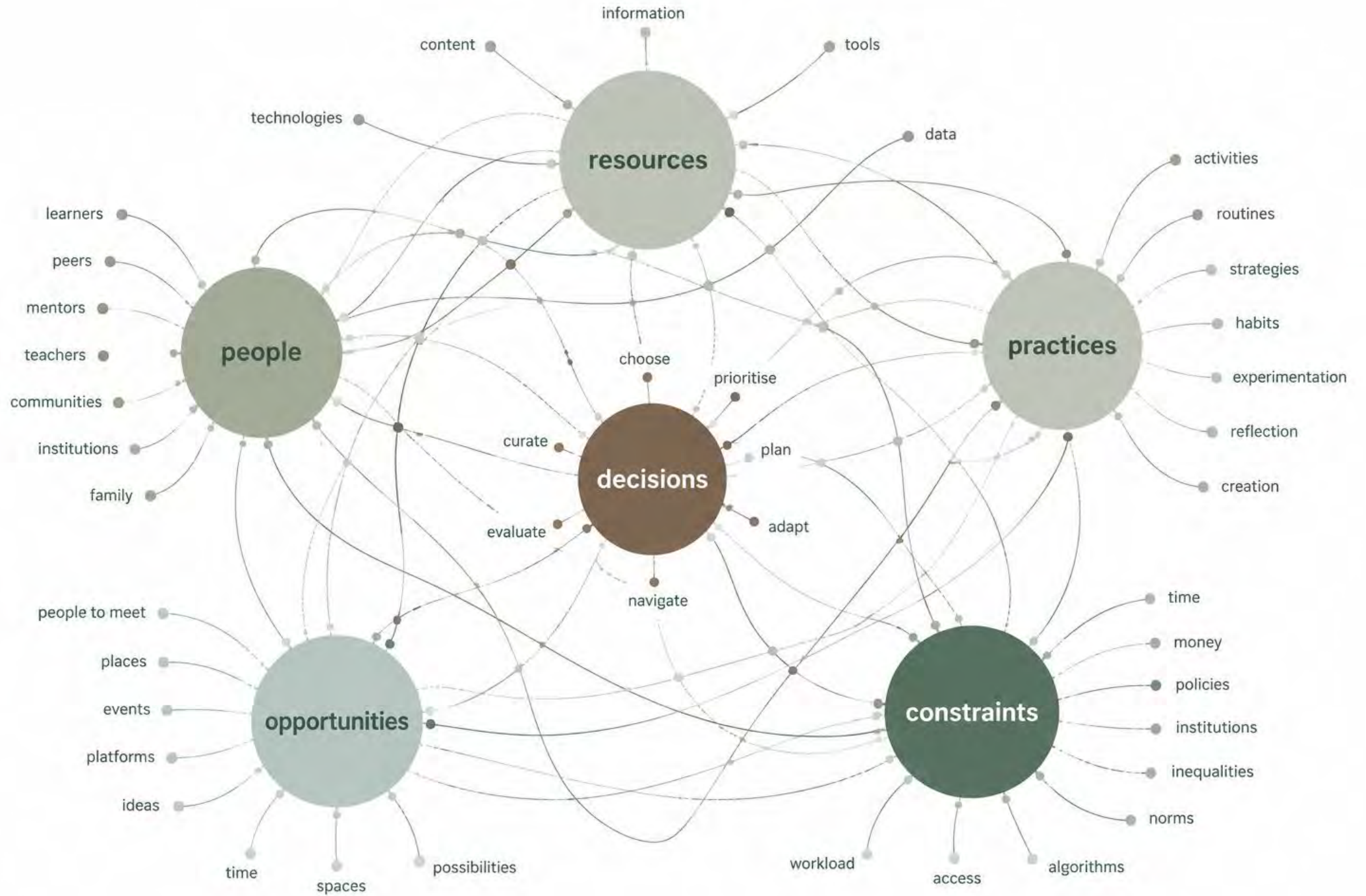
Not just talking – communicating

LIFE

DIGESTI
DOING
BIG BIALOG

leaving
DIGESTING
BRAINS
ALONG





learn
in a

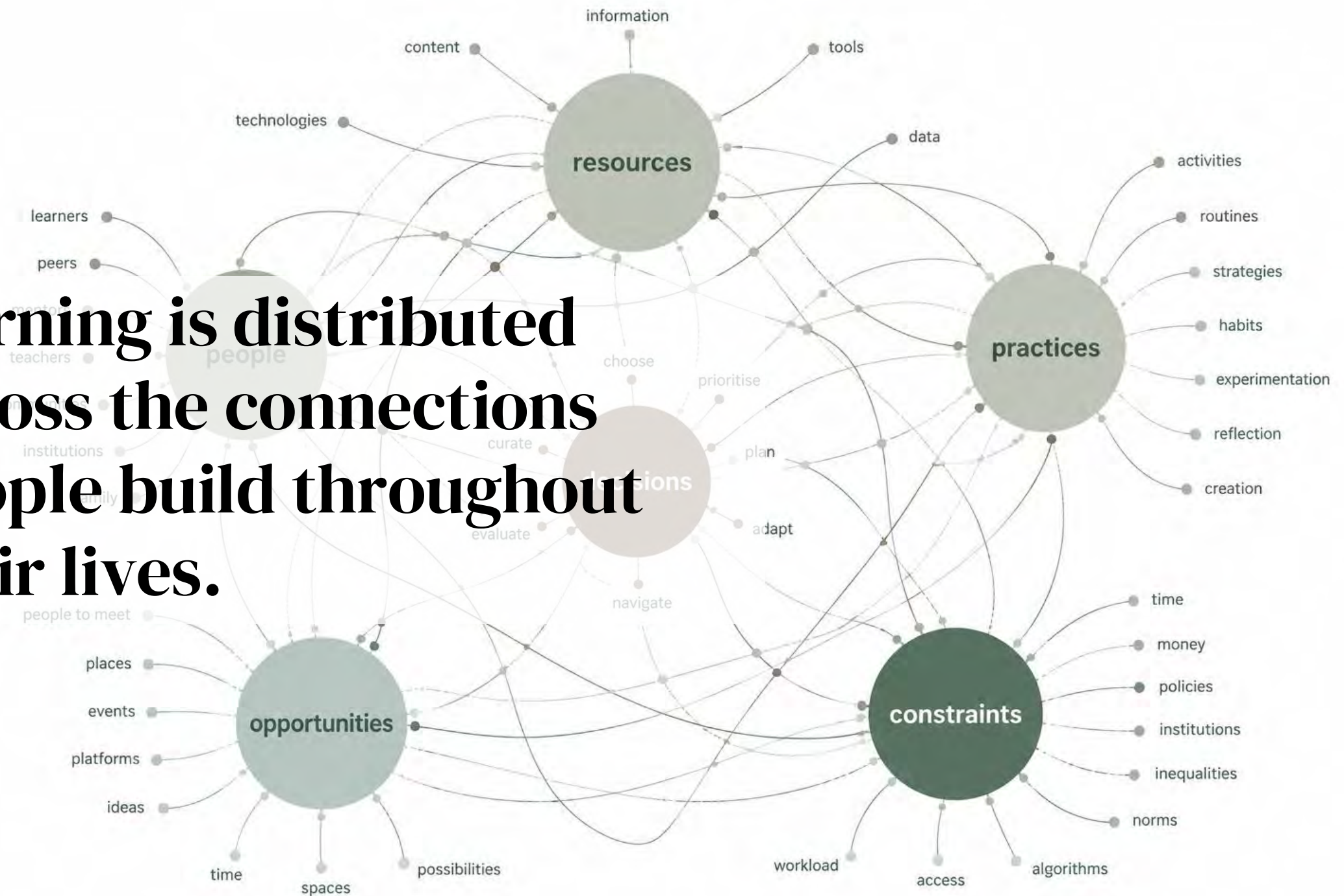


DIGESTING
DOING
DIALOGUE

“the real problem solving engine was the larger, biotechnological matrix comprising (in the case at hand) the brain, the stacked papers, the previous marginalia, the electronic files, the operations of search provided by the Mac software, and so on, and so on”

Andy Clark, 2003 p.26

**learning is distributed
across the connections
people build throughout
their lives.**



**Learning is situated
but it is not contained.**

A dense, multi-layered stack of grey plastic storage bins, likely for construction or industrial use. The bins are arranged in a grid-like pattern, filling the frame. Several bins have labels printed on them, including "KOLOBRZEG", "BALTANTA", "GAISMA", "KLINTHOLM", "OKT", and "O.V. JORGENSEN". The text "STOP BUILDING CONT" is overlaid in large, bold, black capital letters across the center of the image.

STOP BUILDING CONT

PL

personal
learning
environ
ments



DIGESTING

DOING

DIALOGUING

personal

personalized

personal

personalized





personal



personalized

DASHBOARD > INCOME

DAILY WEEKLY MONTHLY

LINE

3M 1M

MON TUE WED THU FRI SAT SUN

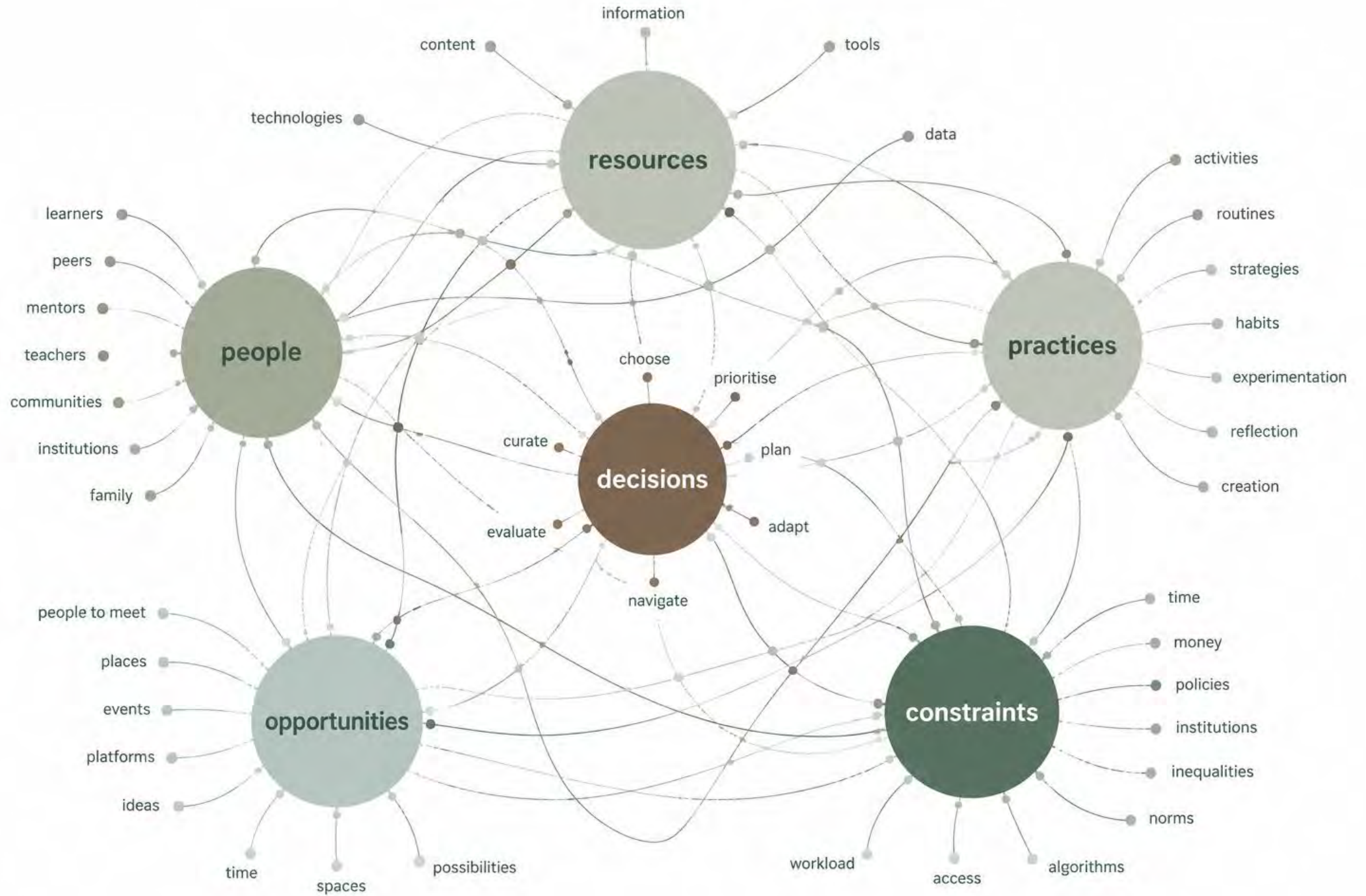
TOTAL INCOME

37.91% 31.86% 30.53%



personal

Metacognition – Selfdirection





personal

A Personal Learning Environment is not personal because it belongs to one individual. It is personal because the learner assumes responsibility for directing it.

ACELIN

CY



STOP BUILDING CONT

**The real educational outcome is
not what students know when
they finish the course. It is the
Personal Learning Environment
they leave with.**

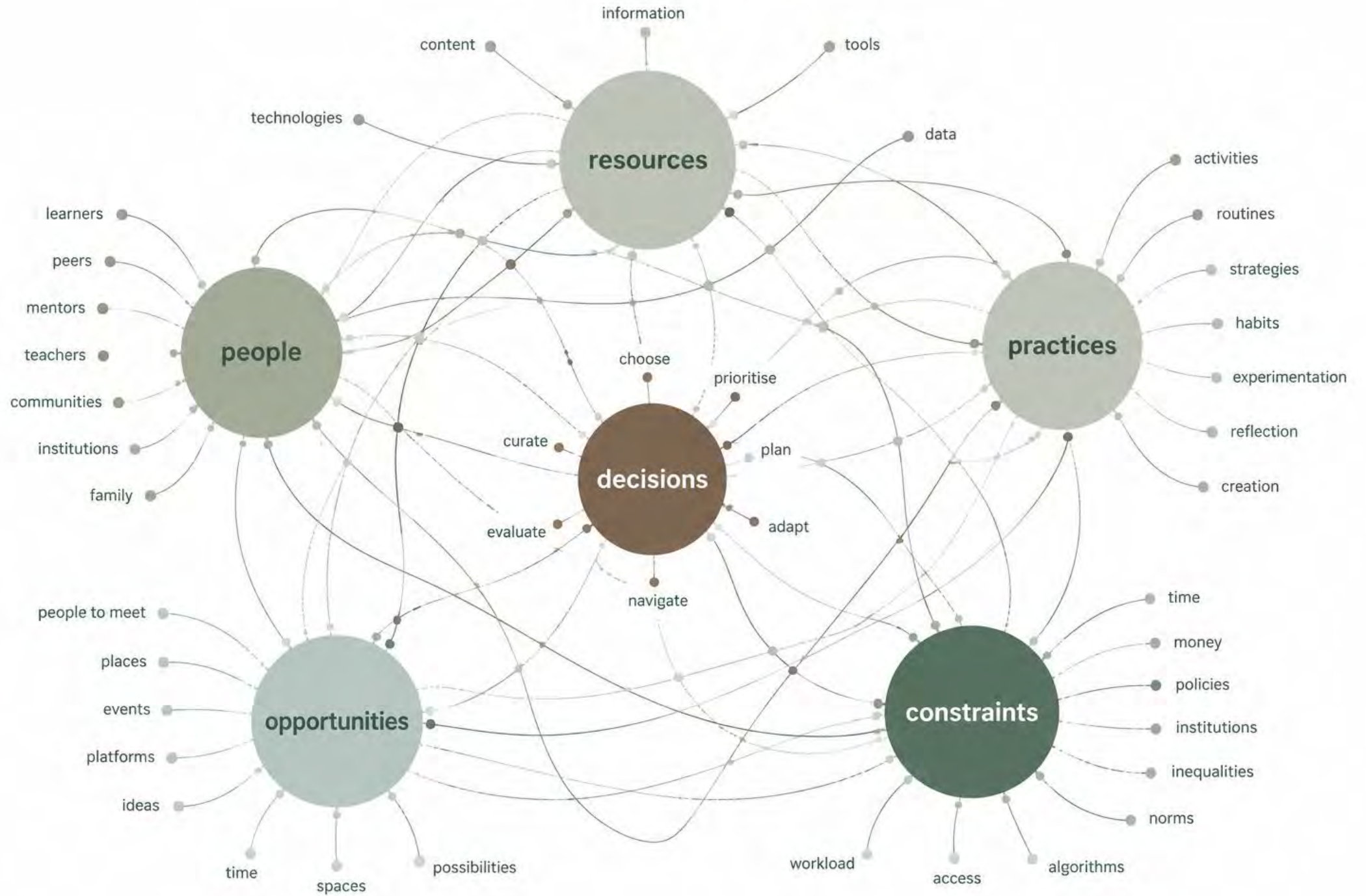


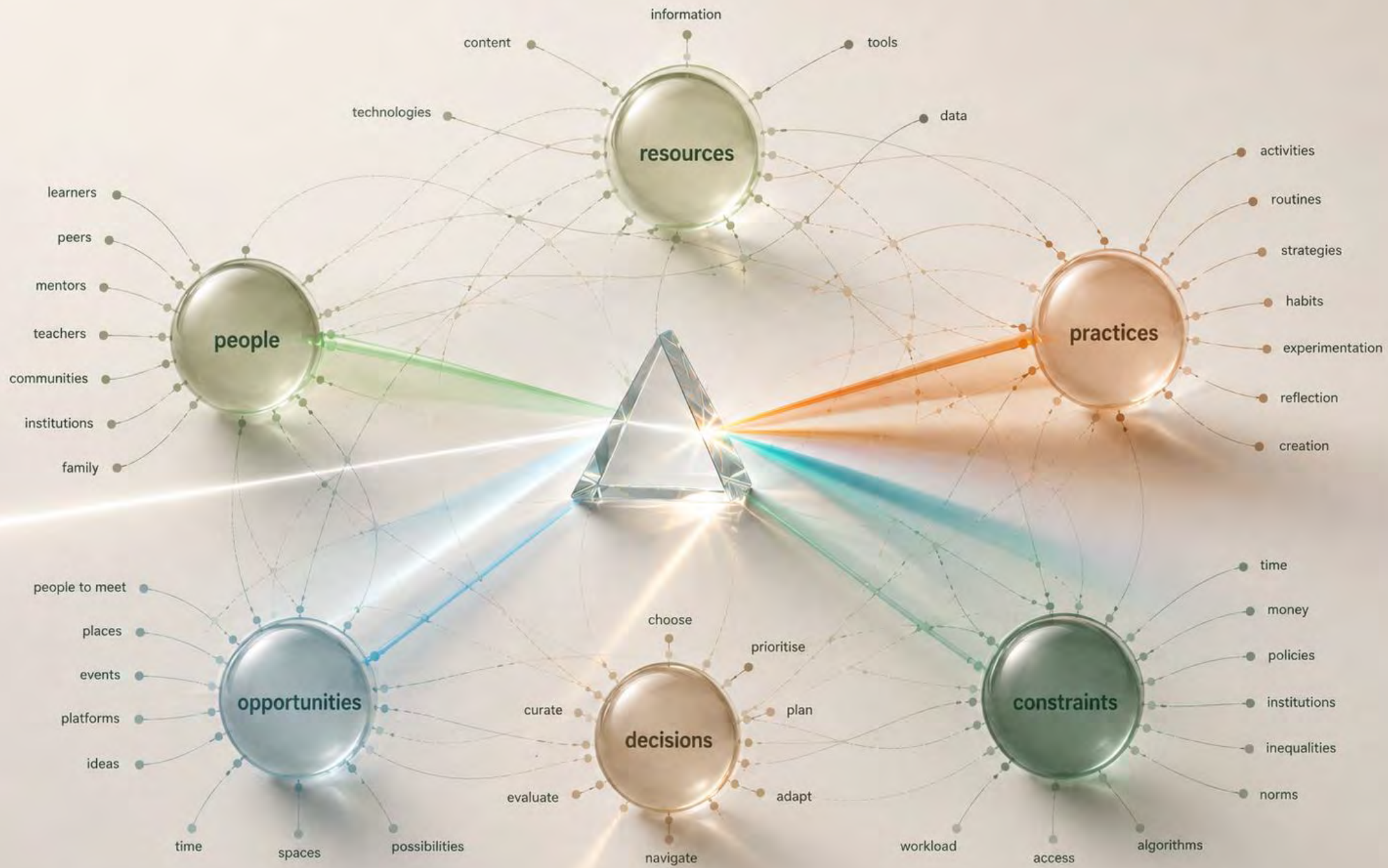
**learning is distributed
environments are sociomaterial
agency matters
people organise
institutions contribute
courses should strengthen PLEs**

A glass pyramid sits on a reflective surface, refracting a light beam from the left into a horizontal rainbow spectrum that stretches across the background. The text is overlaid on the right side of the image.

**And then, AI arrives and
altered all these conditions...**







learn
ing

DIGESTING
DOING
DIALOGUE





INGESTING

The background features a layered, torn paper effect with shades of yellow, orange, and green. A pen nib is visible on the left side, pointing towards the center.

DIGESTING

**How do people
become capable of
deciding what
deserves to be
believed,
questioned,
expanded or
rejected?**



DOI

orchestarting

the

The background features a collage of torn, layered paper in shades of yellow, orange, and green. A silver pen is positioned vertically on the left side, with its tip pointing downwards.

DOING

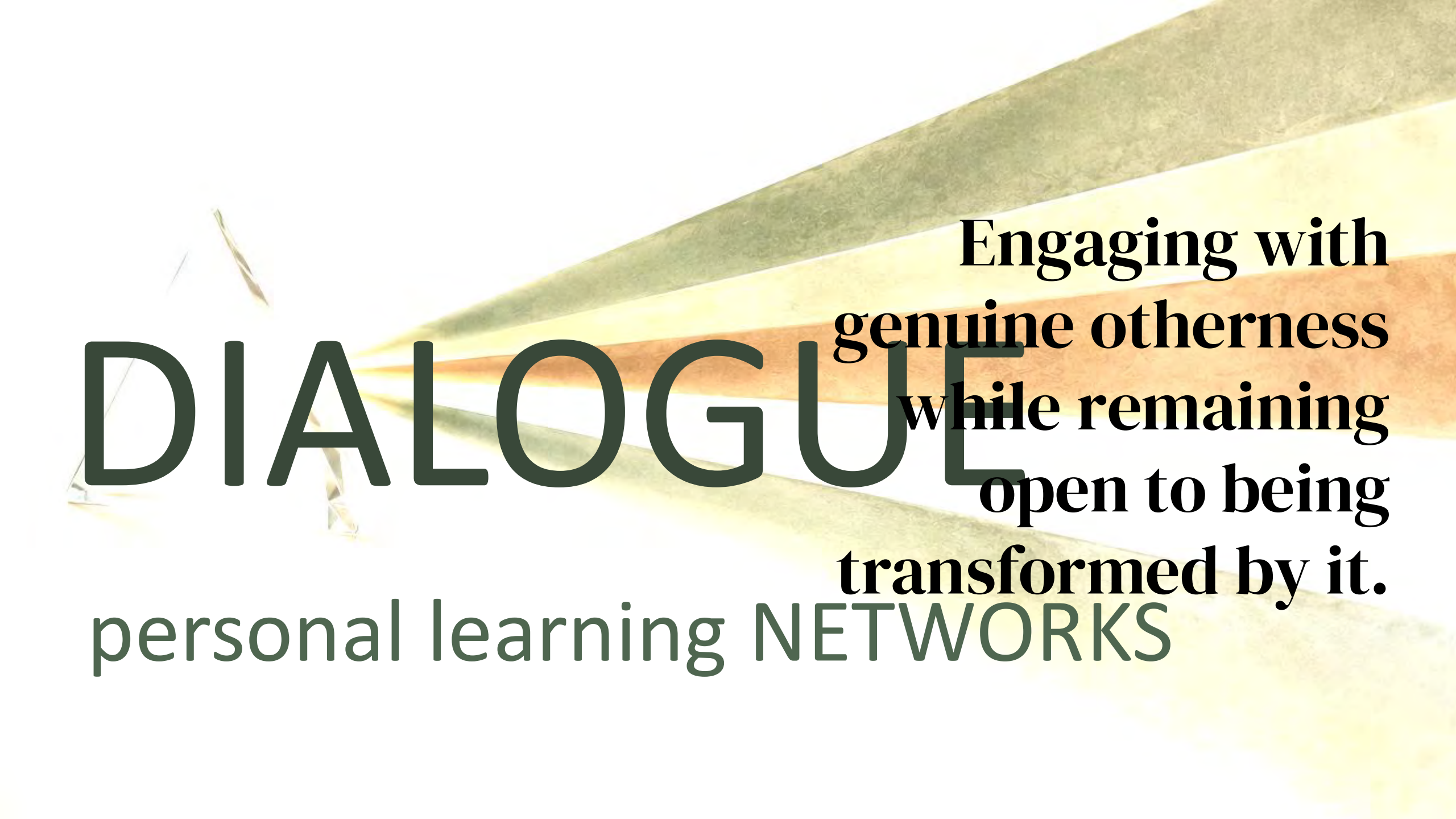
orchestarting

**Orchestrating
complex processes
while remaining
intellectually
ACCOUNTABLE
for the decisions
that shape them.**



DIALOG

personal learning NETWORKS

The background features several layers of translucent, textured paper in shades of yellow, orange, and green, creating a sense of depth. A small, light-colored paper airplane is visible on the left side, appearing to fly towards the right.

DIALOGUE

**Engaging with
genuine otherness
while remaining
open to being
transformed by it.**

personal learning NETWORKS



DIGESTING

DOING

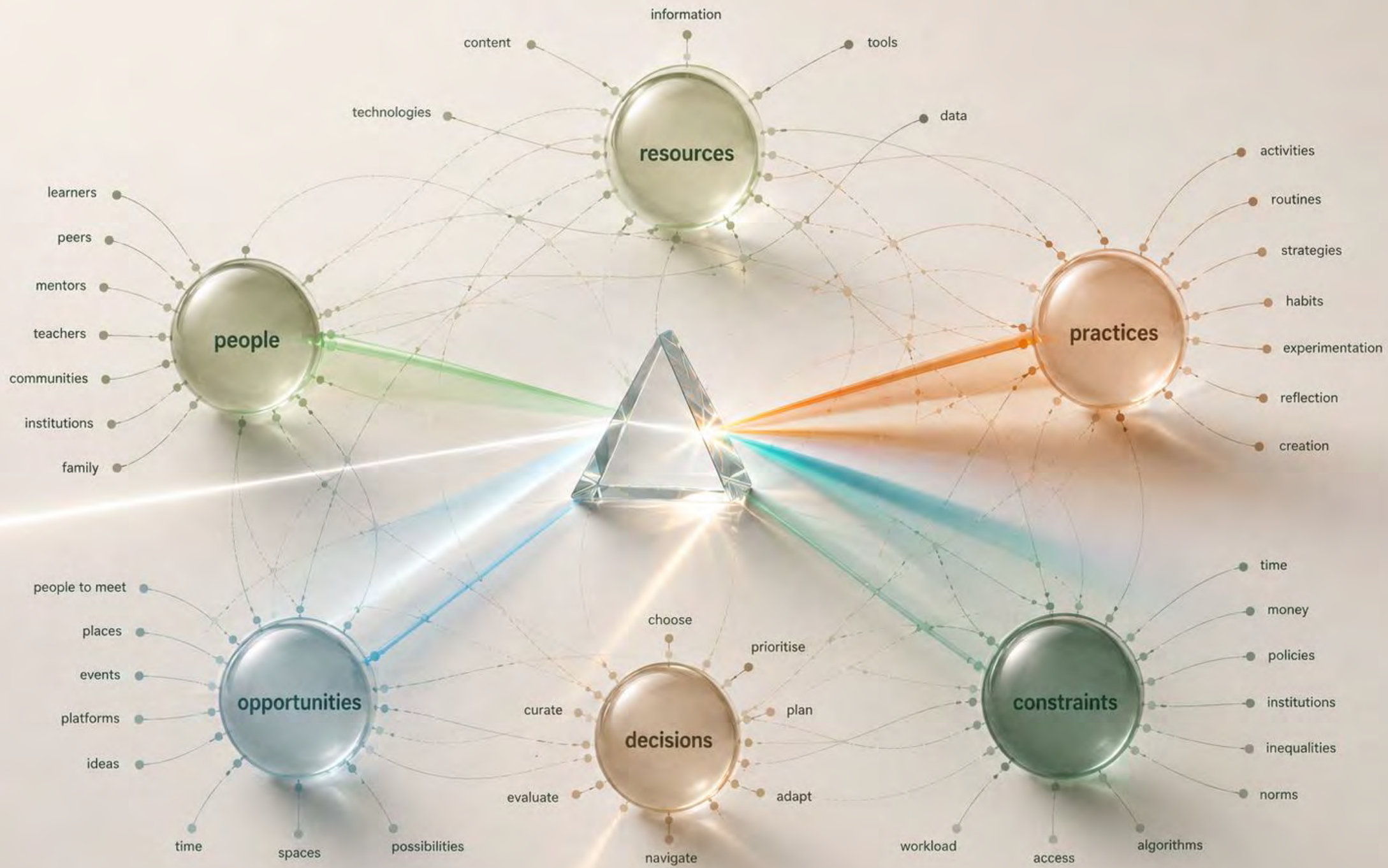
DIALOGUING



STOP BUILDING CONTACT

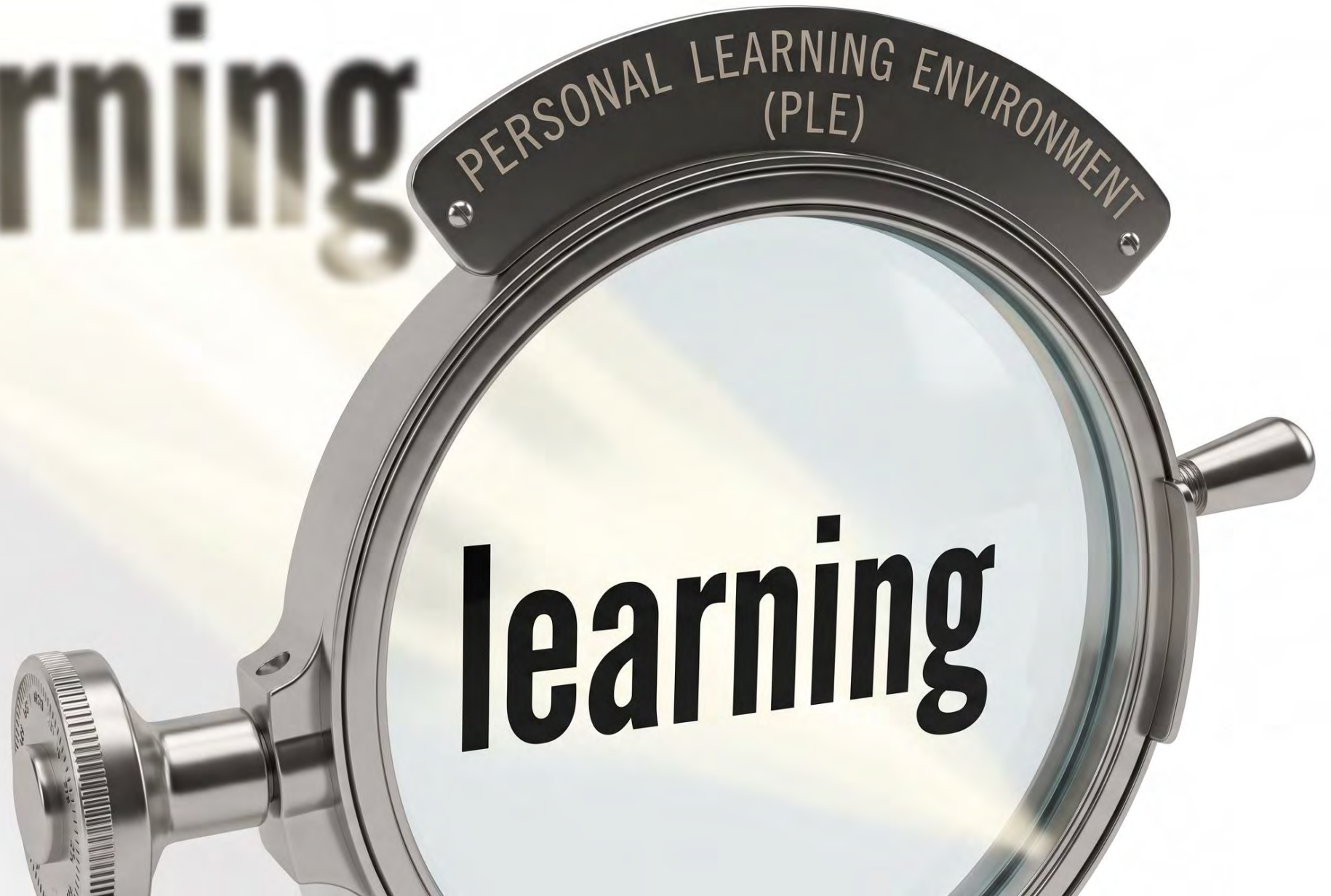
ACELIN

CY





learning



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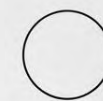
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