MIND MAPS FOR LEARNING AND COMMUNICATING*

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1. Ideas breed ideas

Maybe that's how Bruno Munari would begin the story of certain coincidences that play a key role in the processes of creativity and innovation.

1.1 INAIL notebook 2008: "The Rosetta Stone today"

In 2008 I decided to promote INAIL's safety campaign through an invitation to "mindful writing". The medium chosen was one of the most traditional and well-loved instruments of the world of information: the notebook. The cover was designed to evoke a stone like the Rosetta Stone, the basalt stele inscribed with three

* All of chapter 1 is an introduction written by Marco Stancati, a lecturer at Sapienza University of Rome and the Editor-in-Chief of this magazine.

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different styles of writing that was discovered during the Napoleonic army's Egyptian Campaign.
Underlying the initiative was an evident need for synthesis in communication, the same need that lay behind the hand movements of our ancestors as they drew a graffito, a hieroglyph or an ideogram.
In May 2008 I took part in the 22nd Creativity Festival[1], which included a workshop entitled "The writer's script: writing with mind maps". The workshop was conducted by Roberta Buzzacchino, author of the first Italian blog dedicated to mind mapping[2].
A mind map[3] is a graphic representation of thought based on a radial structure and on associations of thoughts, ideas, and vision. There is a notable affinity with the rationale that inspired INAIL's 2008 communications campaign, because behind the hand movements of a person drawing a mind map there is always a fully-formed thought. Whatever is being communicated must be worth the effort of graphic representation. Instead of a stone, today we use a horizontal sheet of paper and the role played by the incisions cut into the stone is now performed by the images and keywords that are the essence of a mind map.

1.2 INAIL Notebook 2009 "Signa"

From this "contamination", INAIL's "Signa" project was conceived in 2009. "Signa" is a horizontal notebook with blank white pages, so uncluttered by the geometry of lines and squares. It can be used to draw sketches or designs – or to record ideas using the mind-mapping technique.
There is a growing need to expand the range of solutions available to us, break free from our habitual mindset and give ample scope to the free association of ideas, the aim being to envisage the whole and free ourselves from the constraints of a segmented vision.

1.3 From INAIL to Sapienza

These considerations prompted me to take the "Signa" notebook, and what it represents in terms of innovation in communications, to the lecture halls of Sapienza University of Rome, where I teach Media Planning[4] and Public Speaking[5]. I was convinced that today's professional communicators could make

1 Organised by the Createca Association, founded by Hubert Jaoui.
2 www.mappementaliblog.blogsot.com, online since November 2007.
3 The mind-mapping method was formulated in the early 1960s by Tony Buzan. See www.tonybuzan.com.
4 Media Planning in Business Strategy course, School of Communications and Social Research, Sapienza University of Rome.
5 Master's in Public and Institutional Communications, School of Communications and Social Research, Sapienza University of Rome.

good use of a "toolbox" complete with instruments to represent thought in radial form.
Roberta Buzzacchino, a mind-mapping specialist and teaching assistant at the University, teaches this element of the course.

2. Mind maps in teaching

The mental effort required of us nowadays is becoming ever-more insistent. At any given moment, countless items of information are circulating throughout the world. We read and write using various technologies and formats, we are always connected and subjected to countless stimulae. So to introduce different communication methods, we started with some questions.
How can find our way through this complexity of ideas and knowledge? How can we represent thought that is fed by new connections and has to "metabolise" large amount of information, without losing our sense of direction? How can we develop the ability to learn and be innovative so that we can explore new territories in a bold and mindful way?
One answer lies in the mind-mapping communication technique[6].

2.1 Mind maps

2.1.1 What are they?

Mind maps[7] are the graphic representation of thought through words and images, following a hierarchical-associative structure that radiates from the centre. They draw on the human mind's natural ability to associate ideas and thoughts in a non-linear manner and enable us to exploit the potential of our brains more fully. This is because our brains process information not just logically and rationally but also in a global, creative, intuitive and emotional fashion.
Recent studies[8] focusing on creativity pathways have sought to identify the subjective characteristics and mental processes that give rise to creative thought. These studies have found that the act of creation engages different parts of the brain[9], as shown in the following image:

6 The teaching material is published by Roberta Buzzacchino under the title *Le mappe mentali per apprendere e comunicare* in web pages for the Media Planning in Business Strategy course, www.coris.uniroma1.it/materiali/12.10.03_Mappe%20Mentali%20Buzzacchino%202012.pdf.
7 BUZAN TONY and BARRY, *Le mappe mentali*, Alessio Roberti Editore - Nlp Italy, 2008.
8 BESANÇON MAUD, *Le chiavi della creatività* su *Mente & Cervello. Mensile di psicologia e neuroscienze*, November 2011.
9 "The frontal cortex enables ideas to multiply through divergent thought, thanks to the associative neurons, which facilitate exchanges between the 6 layers of the cortex. The pre-frontal cortex enables us to reject an ineffective strategy. Under the effect of a neuro-mediator called Noradrenaline, which is secreted by the *locus ceruleus*, the lower parietal cortex prompts us to change our point of view on a problem: what we define as mental flexibility. And then there is the *corpus callosum*, a bundle of fibres that links the two hemispheres and enables them to 'converse' to best effect and produce innovative ideas". (Besançon Maud, cit.).

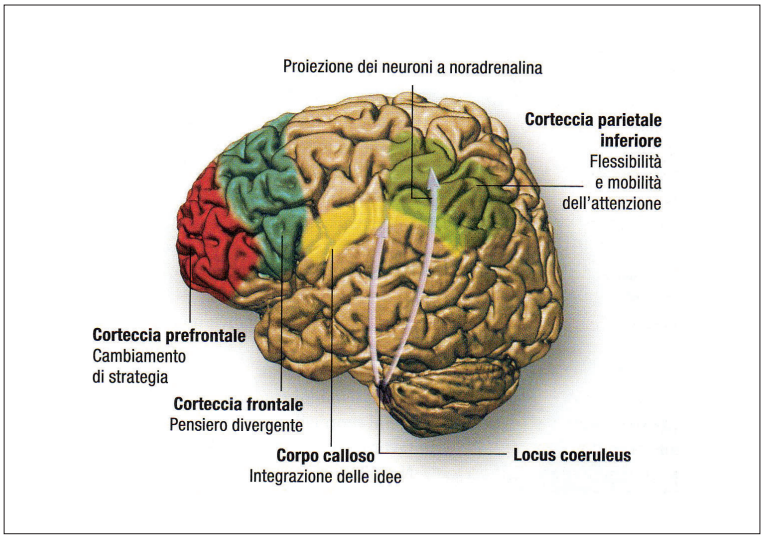


Fig. 1: *The creative brain* (by BESANÇON MAUD, op. cit.).

The different areas of the brain communicate[10] through a dense network of nerve cells called neurons. It was the structure of neurons that inspired the educator Tony Buzan to devise the mind map method[11].

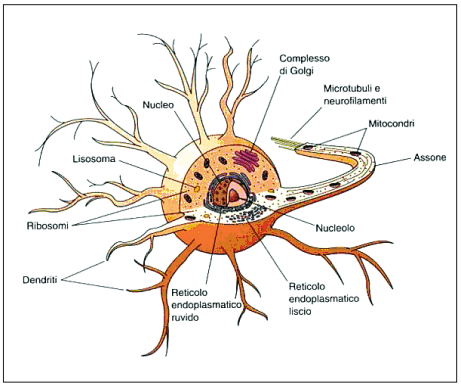


Fig. 2: *Structure of the neuron*.

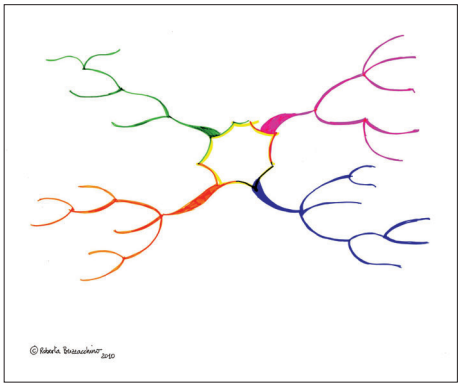


Fig. 3: *Structure of a mind map*.

10 Video *Neurons: How they works* da www.youtube.com/watch?v=c5cab4hgmoE.
11 Video *How To Mind Map With Tony Buzan* da www.videojug.com/film/how-to-mind-map-with-tony-buzan.

2.1.2 How are they made?

To make a mind map, you start from the centre of a blank sheet of paper positioned horizontally and use words and images to visually display the subject you want to develop. You work clockwise, and draw one or more branches to which you add sub-branches as necessary and on which you write key words accompanied by images, or just images. The result is a complex web that represents the logical pathway through which the subject develops. The mind map is read clockwise, starting from the first branch on the right.
Setting out the elements (keywords and images) in this radial format makes it possible to visualise relationships that it would be very difficult to convey with linear and sequential writing. That is why mind maps foster the creative process, which entails a switching between logical and analogical thinking, in the search for an order that produces a new meaning.

2.1.3 What are they for?

Thanks to the large number of possible associations, mind mapping enables us to organise information, visualise it at a glance and generate new ideas: each word in a map is, potentially, the centre of another map.
Mind maps are valuable tools for innovation and organisation because they help reconcile the imagination with the concrete, intuition with method, individual effort with group work.
Mind maps can be a useful aid in various spheres: *business, educational* and *personal*.

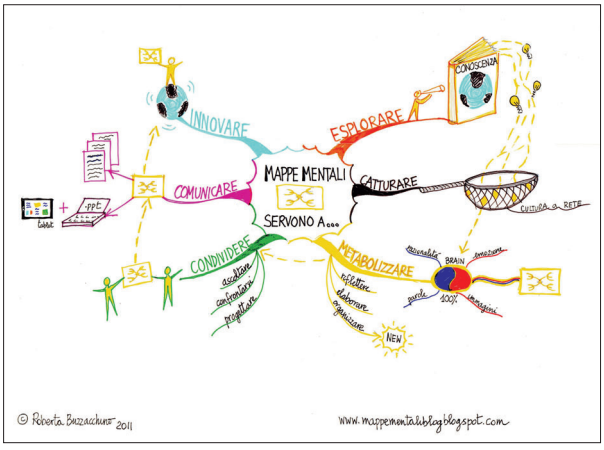


Fig. 4: *What are mind maps for?*

2.3 Teaching through an architectural metaphor

2.3.1 Opening the door of the 21st century

Students were invited[12] to "open the door" of the 21st century to explore the increasingly interconnected territories of knowledge, which require an agile and flexible mind in the quest for a balance between order and chaos, digital and analogue.
Starting from the complexity and metamorphosis being experienced by our society[13] and, it follows, by communication processes, we found an architectural metaphor to be a useful lead-in to our consideration of mind mapping.

2.3.2 From grid to web: space opens up

By structuring communication and social interaction, architecture communicates changes in society through new styles. The following sequence of images represents three stages of transition:

Modernism	Post-modernism	Parametricism
		
Seagram Building (1958) by Mies van der Rohe	Guggenheim Museum in Bilbao (1997) by Frank Gehry	MAXXI National Gallery of 21st Century Art (2010), by Zaha Hadid

12 Sapienza University of Rome, 2009-2012: School of Communications and Social Research: Media Planning in Business Strategy course; Master's in Public and Institutional Communications; Master's in Organisational Communications.
13 DE TONI ALBERTO F. and COMELLO LUCA, *Viaggio nella complessità*, Marsilio Editori, Venice, 2008.

In the Seagram Building (1958) by Mies van der Rohe, the ideals of linearity, order and rationality that are typical of western thinking and derive from classical science can be clearly seen. In Frank Gehry's Guggenheim Museum in Bilbao (1997), a palpable change is evident: an absence of linearity, coupled with an impression of disorder and ever-changing, dynamic forms that evolve with the setting . Lastly, the MAXXI (2010) by Zaha Hadid is the architectural manifesto of a new style: **parametricism**:

> *Parametricism is poised to become the first new global style that can - must - replace modernism as the true style of the age. To do so, it must counter the residual monotony of modernism and the cacophony of the urban chaos that exploded as that movement drew to a close with a complex and variegated* **order inspired by the self-organised processes of nature***.*
>
> *Instead of placing rigid, closed geometrical shapes together, as all previous architectural styles have done, parametricism juxtaposes malleable elements in a dynamic play of mutual correspondences and adaptability to the context*[15].

The design of the MAXXI does not start from a "platonic solid" or a closed, regular geometry: the basic diagram is a boomerang of six curved lines that glide along parallel lines and seem to score the space on which they do not so much stand, as flow.

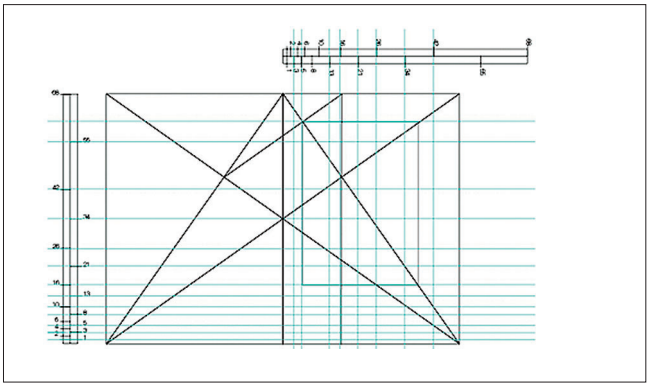
2.4 Forms of writing

Nowadays, our information spaces, whether digital (websites, e-books, applications) or physical (cities, shops, museums), increasingly take the form of a complex blend of words and images: words to look at and images to read. Thanks to the internet of things, enhanced reality and the new frontiers of performance art, words are increasingly invading physical spaces that originally were foreign to them. At the same time, an equal and opposite movement sees images and designs invade the spaces that "belong" to writing[16].
The result is a form of writing that, as in the design of the MAXXI, marks or scores the space on which it flows.

14 TAYLOR MARK, *Il momento della complessità. L'emergere di una cultura a rete*, Edizione Codice, Turin 2005.
15 SCHUMAKER PATRICK, *La città parametrica*, in Being Zaha Hadid, *Abitare*, no 511, April 2011. SCHUMAKER, director of Zaha Hadid Architects, developed the concept of parametricism, whose overall goal is to organise and articulate the growing complexity of social institutions and the way we live in the post-Fordist "networked society".
16 ROSATI LUCA, *Sinsemia: la scrittura in formato paesaggio*, in *Architettura dell'informazione e trovabilità* (online, blog) 30 May 2011 http://lucarosati.it/blog/sinsemia.

2.4.1 Linear writing

There is an analogy between the process by which architecture evolves and the transformation of writing through the mind-mapping method[17].
In the following image, linear writing[18] is like a Seagram building where information is arranged in shelves from A to Z. The floors are all equal and separate from each other, movement is only possible along long, narrow corridors and there are no other linkages. The static structure, with a beginning and an end, does not foster creativity and/or the association of ideas.



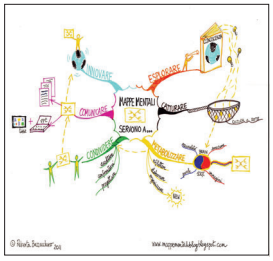
17 BUZZACCHINO ROBERTA, *Il radiant thinking per orientarsi nella complessità di idee e saperi. Rappresentare graficamente il pensiero con le mappe mentali*, INAIL, *Rivista degli Infortuni e delle Malattie Professionali*, no 3/2008.

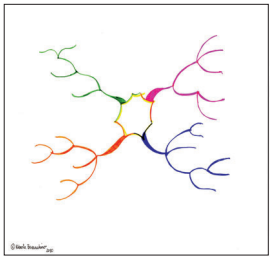
18 With linear thinking, thought is represented on a vertical sheet which respects the cage formed by the page format and uses: for example, a narrative style. The advantage is a form of expression that is as objective, specific and unambiguous as possible. The disadvantage is the one-dimensional form of representation, with concepts dispersed throughout the writing "pathway". The keywords, which enable us to make associations and activate the creative process, do not stand out.

Writing does not consist solely of letters, words, numbers and punctuation marks. It also includes elements like colour, size, the visual "weight" of characters, and space[19]. The arrangement of the elements in space is not just decorative but has a communicative purpose, just as words and numbers do. In other words, writing can be (and is increasingly) "open in space".

2.4.2 Radiant writing

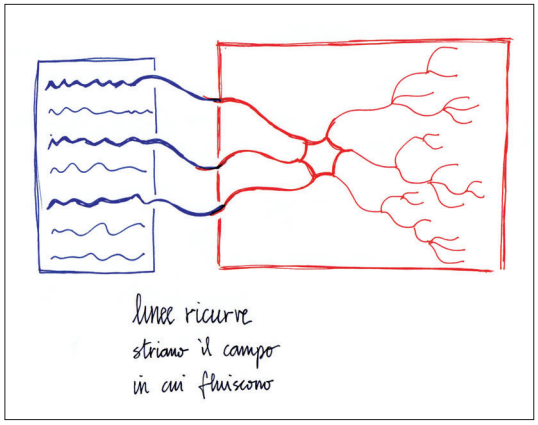
As can be seen in the following image, the radiant writing seen in mind maps has numerous features in common with parametricism. They share an organic morphology that belongs as much to mind maps as to contemporary architecture, for example in the form of the MAXXI.





2.4.3 From the alphabet-centred to the synsemic model

The architectural metaphor gives us a way to express the essence of the metamorphosis which the world of communication is undergoing, sometimes without realising it.



19 LUSSU GIOVANNI, PERRI ANTONIO, TURCHI DANIELE (a cura di), *Scritture. Le forme della comunicazione*, Aiap Edizioni, Rome, 1998.

To take into account the spatial view of writing, in 2007 Giovanni Lussu and Antonio Perri coined the term "synsemia":

> *The word is composed of the prefix "syn-", from the Greek syn (with, together), interpreted as "union", "contemporaneity", and "-semia" which derives from sema, "sign".*
> *"Synsemia" stands for the deliberate and conscious arrangement of elements of writing in space with the aim of communicating, through the spatial layout, in a reasonably unambiguous and systematic manner*[20].

In a mind map, the synsemic organisation of the written elements (keywords and images) is clear[21]. It makes it possible to visualise relationships that with alphabet-centred, linear and sequential writing would be difficult to detect. That is why mind maps encourage the creative process, which requires us to switch between logical and analogical thought, in the quest for an order that produces a new meaning. By using mind maps, we are able to move from linear to radial writing and then back to linear, thus enabling our thoughts to be enriched by new associations and ideas.

As Edgar Morin writes:

> *An "effective" head is a head that is able to organise knowledge in order to prevent it from simply accumulating in a sterile manner. All knowledge is a translation and at the same time a reconstruction (starting with signals, signs and symbols) that takes the form of representation, ideas, theories and discourse. The process is circular and moves from separation to connection, connection to separation, and from analysis to synthesis, synthesis to analysis*[22].

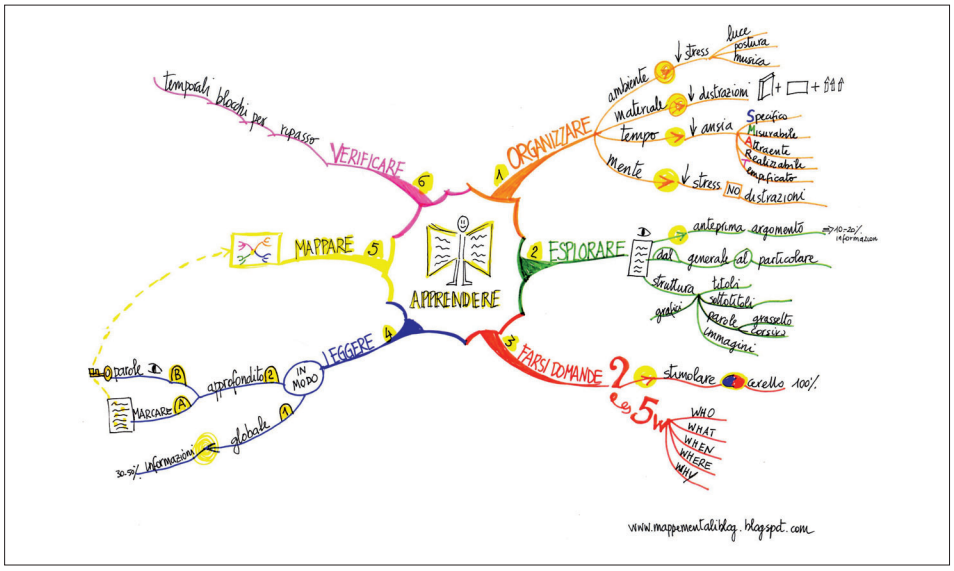
20 PERONDI LUCIANO and ROMEI LEONARDO, *Le forme di scrittura «penalizzate» dalla stampa risorgeranno sui tablet*, in *Nova24 Innovazione e Tecnologia*, *Sole24ore* (online, website) 28 October 2012 www.ilsole24ore.com/art/tecnologie/2010-11-16/letture-recuperare-164729.shtml?uuid=AY39BBkC**.**

21 BUZZACCHINO ROBERTA, *Reflections on synsemia and mind maps*, in Sinsemia (online, blog), 7 December 2010 www.synsemia.org/2010/12/07/riflessioni-su-sinsemia-e-mappe-mentali.

22 MORIN EDGAR, *Una testa ben fatta. Riforma dell'insegnamento e riforma del pensiero*, Raffaello Cortina Editore, 2000.

3. From theory to practice: the path to follow is creativity

We proposed the mind-mapping method to students[23] as a tool to aid learning[24] which, as a complex process, entails different stages that are summarised in the following map:



All of the following activities are preparatory steps to building a mind map: 1. organising the material to be studied; 2. exploring the text for a "preview" of the subject; 3. asking oneself questions to stimulate understanding; 4. reading the text, first in a general way to add to the network of information; 5. reading the text again, in greater depth, and marking it to highlight keywords.
If these steps are followed, learning will no longer be mechanical but dynamic, like a true creative process. The notions learned during lessons, in a formal learning setting, will have been verified not just through exams, but, to an even greater degree, in day-to-day work to create something new and useful. In other words, something innovative.

23 See note 12.
24 SERAFINI MARIA TERESA, *Come si studia*, Bompiani, 2009.

A mind map[25] freely adapted from the book "La trama lucente"[26] was useful in increasing students' awareness of this process. It sets out the four stages of the creative process as follows.

1. *Preparation*: The first step is to collect the materials and information on which you will be working, and to organise them. This type of operation requires a methodical and systematic approach. Effective preparation consists of knowing your subject well enough to understand what new elements you might find; of turning a curious and competent gaze on a phenomenon that others may have considered but failed to draw any consequences from; and of identifying a problem or question that has not yet been resolved or answered.
   ***Mind maps serve to "visualise" connections between one subject and another.

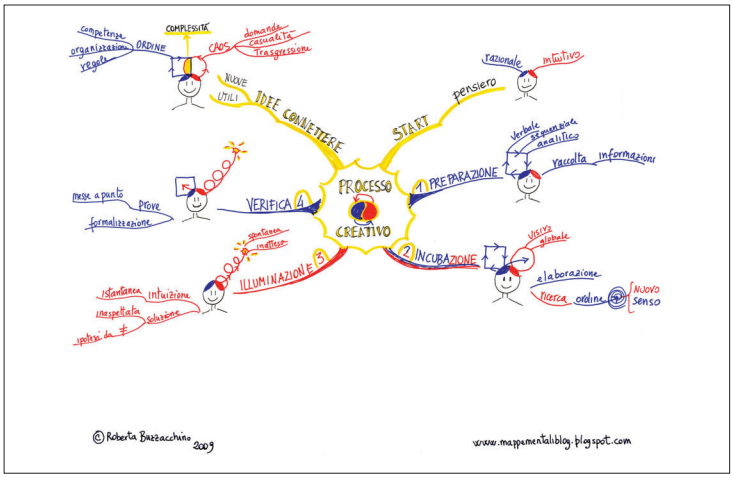
2. *Incubation*: processing the available material mentally, in the quest for an order that produces a new meaning. This process develops through trial and error, through flows of thought that are apparently disordered and fluctuating. It continues even when conscious attention is suspended (for example during sleep). In this stage, the mind is constantly at work seeking the solution to the problem, even if you are not deliberately reflecting upon it. The incubation period is fertile only if sufficient time and care have been spent on the preliminary work. Incubation requires tenacity and rigour, flexibility and an open mind.
   ***Re-read mind maps as though they were "pictures" to have an overall view of the subject. It helps to leave some of the branches empty because afterwards your mind will try to fill them and complete your "web".

3. *Illumination or insight*: an intuition, often instantaneous, of an unexpected solution that is different from anything you had thought of previously. It arrives with a "flash": an instantaneous re-arrangement of the elements at play and their inter-relationships. And it often comes with a strong emotional reaction.
   ***At this stage, the mind map is very "practical": sometimes all that is needed is a tiny sheet of paper because, with just a few words and/or images, you can "capture" the right idea.

4. *Verification*: the product of your intuition is tested, fine-tuned and formalised.

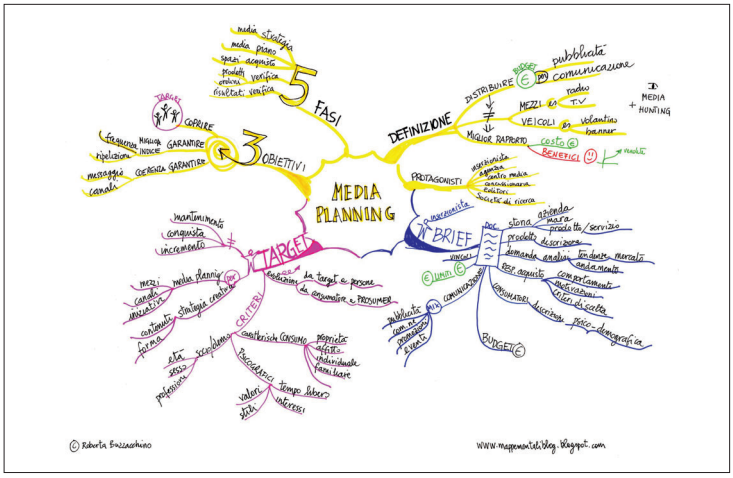
25 The first version is contained in I sentieri dei pensieri. Disegni semplici per descrivere il processo creativo, by ROBERTA BUZZACCHINO, August 2008 http://issuu.com/roberta_buzzacchino/docs/i_sentieri_dei_pensieri.

26 TESTA ANNAMARIA, *La trama lucente. Cos'è la creatività, perché ci appartiene, come funziona*, Rizzoli, 2010.



3.1 From classroom to web

Mind-mapping lessons took place in the classroom[27] and examined not just the theoretical but also the practical aspects, with exercises and an analysis of maps applied to concrete cases, for example analysis of the media-planning process:



27 See note 12.

Teaching was then continued on the web, using email, blogs, Facebook, and Skype for one-to-one sessions. Some of the students' learning experiences were shared through the www.mappementaliblog.blogspot.com blog, where the maps were published along with a commentary by the authors and advice on how to apply the rules more effectively. By using this form of story-telling, we whetted the curiosity of other students, who subsequently decided to try the method themselves.

3.2 The study stage: singly or in groups

At the beginning, the mind maps were applied for study purposes. Very often, a wide and diverse range of sources is used to prepare for exams: reference manuals, slides published on the department website for each subject taught in the lessons, testimonies from professionals working in the sector, any material found online or in the library.
The following stories describe the experience of some of the students who tried and applied the method.

> *At the beginning I was sceptical: the "dogma of linear summaries" was absolute! But then, to manage the large amount of information contained in the text and in the slides, I decided to try out the maps and challenge myself. I let my curiosity guide me and discovered that it's possible to learn not just "mechanically" by accumulating information, but also "organically" by getting to the heart of the concepts*[28].

Mind maps were a useful tool to gain a more systematic view of complex processes like the production of a media plan:

> *I produced a media plan on the Toyota IQ case for the exam.*
> *Considering that the presentation consists of about 80 slides, I wanted to try to make a mind map that would incorporate all of the sources I'd used in just one page. I thought this would make it much more immediate, and easier to understand the material I'd decided to use, instead of searching through the 80 slides! Given that I like drawing, not only did I enjoy making the map for my media plan, but I also found it a really useful way to summarise all my work and keep it under control in just two pages. I looked again at the outline I'd made on the PowerPoint, and I think that, in comparison, the map is much clearer and more immediate – as well as being much more attractive and colourful! I'm glad I tried this new method; I'm sure it'll be useful*[29].

28 ALESSIA BELLEZZA, *Mappe mentali all'università #8*, in mappe_mentali_blog (on line, blog) 12 July 2009 www.mappementaliblog.blogspot.com/2009/07/mappe-mentali-alluniversita-8.html.
29 TIZIANA FIAMIN, *Mappe mentali all'università #8*, in mappe_mentali_blog (on line, blog) 18 November 2009 www.mappementaliblog.blogspot.com/2009/11/mappe-mentali-alluniversita-8.html.

The method was applied for different types of exam, such as Media Planning, Business English, Brand Design, and Management and Organisation of Business Communication.

> **The context**: *to prepare for the Management and Organisation of Business Communication exam, the sheer amount of material to be studied was in itself a major obstacle to tackle:*
> *- 4 books (for a total of 1,100 pages)*
> *- countless slides*
> *- notes taken during lectures and tutorials.*
> *In addition to which was the highly technical nature (management engineering) of the first part of the exam.*
> **How it worked**: *Lectures lasted 3 hours (from 2pm to 5 pm, 3 days a week from April to May). To cope with dips in attention, I tried to re-create, in map form, the slides that were being shown. Every so often I noticed the lecturer's perplexed eye falling on my sheets of paper: he probably thought I preferred drawing to listening to him!*
> **Studying**: *The first difficulty was to approach slides that were packed with text, diagrams and bullet points, and to try to understand the concepts and free them from the classic PowerPoint format. The next step was to read the manual. I realised that in my mind I was already beginning to associate words and concepts with images, but I held back from putting them to paper and simply underlined the parts that seemed most relevant. Maria and Valentina joined me as we read through the text a second time.*
> *The study afternoon was structured as follows: one of the two read aloud and I, armed with pencil and sheets of paper, drew the map. As I already had an idea of the subjects it was fairly easy to manage the space on the sheets. At the end of the chapter, we read the map again together and added notes we'd taken during the lesson. We left the colouring-in - the fun part! - to the end of the evening.*
> **The result**: *I made 12 maps that summarised 470 pages of the book, the slides and the notes. I did the rest of my exam preparation the traditional way (just reading and underlining), as I was short of time. The crux was the oral exam, during which I saw all my "branches" guide me towards an articulate and detailed answer. Opening my mind to new forms of learning was a real success*[30].

The maps were also used for group work:

> *We are more and more convinced that mind maps help increase not just individuals' but groups' creativity too. Indeed, in the project we involved one fellow student who had attended the mind-mapping lesson but had never applied the method. It was very easy to bring him on board and, after feeling a bit lost at the start, he ended up embracing the radial world of the maps. By following the steps we were taking he managed to free up his mind; he took an active part in the creative process and shifted his point of view.*
> *When you enter this fantastic world, you realise how important it is to use your hands not just to leave room for your imagination, but also to gain a sense of the "concrete", because so much commitment goes into the creation of a map*[31].

30 SIMONA PARISI, *Apprendere con le mappe mentali*, in mappe_mentali_blog (on line, blog) 23 September 2010 www.mappementaliblog.blogspot.com/2010/09/apprendere-con-le-mappe-mentali.html.

31 MARIA SACCO and VALENTINA SERGOLA, *Mappe mentali a lieto fine*, in mappe_mentali_blog (on line, blog) 27 May 2010 www.mappementaliblog.blogspot.com/2010/05/mappe-mentali-lieto-fine.html.

The experience of a group of nine students working for the Brand Design exam was also significant. The exam envisaged a workshop-type element to develop a visual identity project on a specific topic.
It's worth taking a closer look at the most important steps of this experience:

> *At the outset, the students*[32] *were somewhat perplexed: they were accustomed to using Word and PowerPoint as their working tools and changing requires energy, an open mind, and a willingness to challenge yourself to see things from a different perspective.*
> *Soon, however, they realised that by representing their thoughts in graphic form, with words, images and colour, they were managing to collaborate more effectively. Their linear notes began to "meld" with the radial ones, their work-bench became a common area where coloured pens helped give shape to their trains of thought and any proposals they wanted to share.*
>
> *The students freely chose to create their mind maps by hand because they realised that, during the early stages of a project, digital tools like PowerPoint and Word don't help you think, share ideas or create something new.*
>
> *The method was used for several purposes: to gather information, study competitors, prepare the questions for the selected interviewees (internal and external), and summarise their answers by identifying the most significant keywords.*
> *At the end, with all the data to hand, they prepared their project presentation with slides interspersed with summary maps that proved useful in highlighting the logical pathway they'd followed*[33].

3.3 The moment of truth: planning the degree thesis

Writing their degree thesis is a decisive moment in the life of any student.
On this occasion too, mind maps facilitated the writing process which, as Luisa Carrada says, begins well before and ends long after the drafting stage. That's why a "map of connections" can be useful:

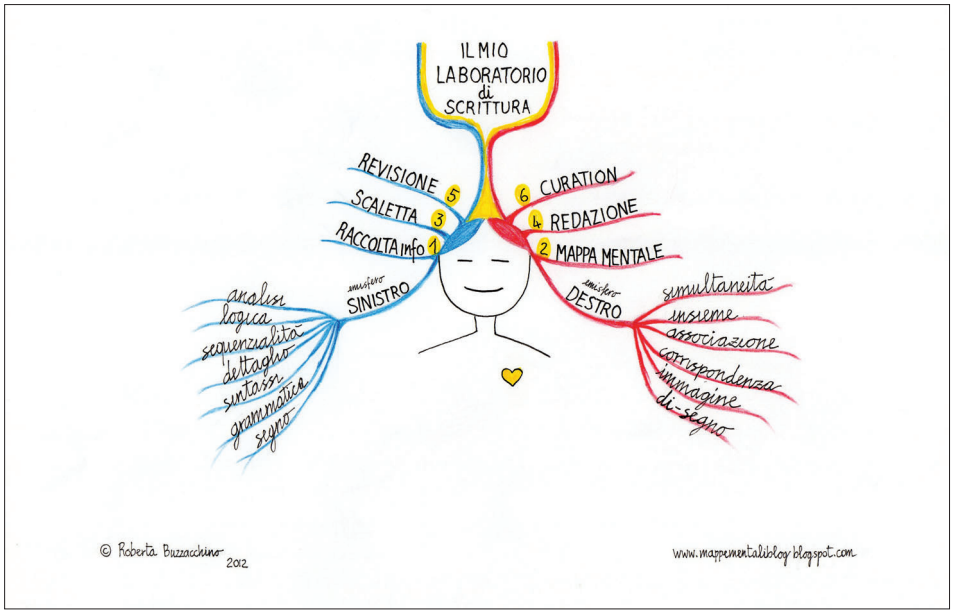
> *As soon as we add even a small item of information to our store, real or mental, the need arises to link it with what we've already gathered: we make distinctions, we select the most significant information, we join the various elements up in chains of associations, we project them into the future, we discover new keys with which to seek and interpret new information and we see things that we hadn't seen before.*

32 ANTONELLA LEONOCI, BLANCA ISABEL ROMERA LUZON, ILARIA CORVINO, KATIA VINCIGUERRA, MARIA SACCO, RICCARDO FLORIO, SIMONA PARISI, VALENTINA AMENDOLA, VALENTINA SERGOLA.

33 ROBERTA BUZZACCHINO, *Made in people*, in mappe_mentali_blog (on line, blog) 5 March 2010 www.mappementaliblog.blogspot.it/2010/03/made-in-people.html.

So it makes sense to set out these connections visually, so that they're constantly in front of your gaze. A good way to do this is to draw a mind map[34].

The mind map below, describing "our writing laboratory", was published in Luisa Carrada's book:



The following degree theses were planned using mind maps: *I lovemarks del running italiano* (Lovemarks in Italian running) by KATIA VINCIGUERRA; *Fattoria 3.0 - Il media plan lancia l'agricoltura in rete* (Farm 3.0 - Media plans to launch agriculture online) by ALESSIA BELLEZZA; *Le Mappe Mentali per la metabolizzazione e proposizione dei contenuti evoluzione, attualità e prospettive* (Mind Maps for content metabolisation and proposition: developments, current state and outlook) by MICHELA BARBIERI; *Un media plan per ellaOne. Il difficile mercato della contraccezione d'emergenza* (A Media Plan for ellaOne. Emergency contraceptives: a difficult market) by TIZIANA FIAMIN.

34 CARRADA LUISA, *Lavoro, dunque scrivo. Creare testi che funzionano per carta e schermi*, Zanichelli 2012.

This is how Tiziana Fiamin describes her writing process:

> *I found mind maps useful to:*
>
> 1. *put together the information provided by the pharmaceutical company and all the other information on the topic that I'd found on the web;*
> 2. *clarify the objectives to be achieved through the communications plan, as well as any problems and the outlook for the future;*
> 3. *sketch out a creative concept for the production of a communications plan on such a sensitive subject as emergency contraception. At this stage, I started by associating any keywords linked to the concept of contraception with those that were also linked to the target;*
> 4. *structure the paragraphs and chapters***35**.

Mind maps inspired Katia Vinciguerra who, in her thesis on Lovemarks in Italian Running, proposed a "Mind Runner's Notebook" for sports enthusiasts who use mind maps to train their body and mind.

> *2009 has been defined as the beginning of the Age of Intelligence and the fitness world seems to have grasped the challenge. This is evidenced by the articles on "Mind Fitness" circulating around the world and the recent opening in France of the first "brain training" gym.*
> *In Italy no sports company seems to have picked up on this new trend and so New Balance could be the first to promote the concept of "mind-body balance". In recent years, the greatest innovation in the running sector has, without a doubt, been NikePlus. The brand which in Italy represents an analogue challenge to Apple, the digital colossus, is Moleskine, with its stylish and much-loved notebooks. A true Lovemark, to which New Balance could link up and buy into that reputation and sense of national belonging, with a view to creating a training diary for the "NB Mind Runners" community.*

In the last chapter of her thesis, this is how Katia summed up her experience as a mind mapper:

> *I stare at the white sheet. Thoughts darting and weaving. Books on the desk, uninspiring files on the desktop and links in favourites… When it's time to start I feel disoriented in this sea of information. If we turn the paper horizontally we open up our minds. If we choose a drawing to place at the centre we visualise our topic. If we draw the branches on which to write our keywords we transfer our natural thought process to the sheet of paper. Mind maps are like a compass to guide us in our writing: they can transform an insight into a precise idea and a precise idea into a project to implement***36**.

35 KATIA VINCIGUERRA, *Sperimentare>prototipo=una tesi radiale*, in mappe_mentali_blog (on line, blog) 20 September 2010, www.mappementaliblog.blogspot.it/2010/09/sperimentare-prototipo-una-tesi-radiale.html.

36 TIZIANA FIAMIN, *Mappe mentali per progettare la tesi*, in mappe_mentali_blog (on line, blog) 20 October 2010 in www.mappementaliblog.blogspot.it/2011/10/mappe-mentali-per-progettare-la-tesi-di.html.

3.4 First steps in the world of work

From the lecture halls of the University, the mind-map method also accompanied students in their first steps to find a job – for example, how to prepare for an interview:

> *To find out more about the working environment of the company where I was to be interviewed for an internship, I visited the company's website to explore its history, its organisational structure and the services it provides. I summarised the most important information in a mind map. I found it very useful to highlight not just the company's strong points, but also the areas where there was room for improvement. On the day of my interview I arrived with my thesis, with my "guide-map" carefully inserted between the pages. As the interviewer leafed through my thesis, he noticed the map. It clearly sparked his curiosity, and he asked me lots of questions about it.*
> *To my delight, the interview was a success and right from my first day at work I was able to use the method. I drew up a series of maps based on the information I was receiving in order to summarise the large amount of things I needed to know and do. Using maps facilitated my transition from the "knowledge" dimension (which is typical of university) to the "doing" dimension (which predominates in your daily work)*[37].

In daily life, too, mind maps can be used to simplify and optimise working processes such as organising a cultural event:

> *This summer, I helped organised a major event during the World Swimming Championships.*
> *After the first few meetings, I had sheet upon sheet of notes, most of which repeated or amended things that had already been said in previous meetings but which were difficult to link up using linear writing. So I gathered them all together in a mind map that I brought to subsequent meetings. I added new branches to the map as and when necessary, and highlighted any branches with actions already completed. That way, I always had the full situation within my grasp and when somebody asked me "Has that been done…?" a quick glance at the map was all I needed to give a prompt reply*[38].

Other mind mappers' stories have been published in www.mappementaliblog.blog-spot.com in the "University" category.

37 ALESSIA BELLEZZA, *Mappe mentali dall'Università al lavoro*, in mappe_mentali_blog (on line, blog), 4 July 2011 in www.mappementaliblog.blogspot.it/2011/07/mappe-mentali-dalluniversita-al-lavoro.html.
38 KATIA VINCIGUERRA, *Mappe mentali all'università #10*, in mappe_mentali_blog (on line, blog), 11 September 2009 http://mappementaliblog.blogspot.it/2009/09/mappe-mentali-alluniversita-10.html.

4. From Italy to Spain: the impact of mind maps on learning

The stories set out above illustrate the positive effects of mind mapping on learning: once a certain degree of "physiological resistance" had been overcome, the students were ready and willing to acknowledge and grasp the potential of this new communications tool.
These encouraging results led to an interesting development on the academic side. INAIL's "Signa" notebook travelled from the lecture halls of the School of Communications and Social Research at Sapienza University of Rome to those of the Education Science Department at the University of Córdoba in Spain.
The two universities met online[39] in June 2011, following the publication of a research project conducted by Córdoba to measure the impact of mind-mapping as a learning method[40].
After numerous emails had been exchanged, augmented by students' own stories published on the web[41], the contacts led to a visit, from 24 to 31 March 2012, by Juan Manuel Muñoz González and Rocío Serrano Rodríguez, lecturers at the University of Córdoba, to the School of Communications and Social Research at Sapienza.
The visit saw an intensive week of meetings and cultural exchanges[42] during which, starting from basic theory, the Spanish and Italian academics discussed the relationship between mind maps and conceptual maps, the differences between the manual and the digital approach[43] and, lastly, drafting and editing techniques, with reference to the development of radial representation[44].

39 The opportunity arose from a post published by PHILIPPE BOUKOBZA, *Un estudio demuestra varios beneficios de los mapas mentales*, in Co-Nectar (on line, blog), 29 May 2011, www.co-nectar.net/2011/05/un-estudio-demuestra-varios-beneficios.html.

40 The research, conducted between 2006 and 2008 on a sample of 1400 students, was published in the article *Influencia de los mapas mentales en la forma de ser y pensar in Revista Ibero-Americana de Educación*, no. 55/11 www.rieoei.org/deloslectores/3572Ontoria.pdf.

41 See mappe_mentali_blog (on line, blog), "Università" category. www.mappementaliblog.blogspot.it/search/label/università.

42 For a more detailed summary: ROBERTA BUZZACCHINO, *Mappe mentali all'Università… la storia continua!*, in mappe_mentali_blog (on line, blog), 17 April 2012, www.mappementaliblog.blogspot.it/2012/04/mappe-mentali-alluniversita-la-storia.html.

43 The work done with the students indicated that it is more effective to approach the method starting with paper and coloured pencils, and then move on to software. Manual, "slow" learning helps them familiarise themselves with the basic rules of mind mapping.

44 ROBERTA BUZZACCHINO, *Senso orario o antiorario?*, in mappe_mentali_blog (on line, blog) 24 January 2011, www.mappementaliblog.blogspot.it/2011/01/senso-orario-o-antiorario.html.

On the last day of the visit, a joint theoretical-practical lesson was held in the School, attended by early 100 enthusiastic students from the Media Planning course. All of the students, individually and in groups, were invited to depict a linear written text using mind maps .
The lecturers from both universities undertook to analyse the abundant material produced in order to continue their research, and to discuss the possible conclusions over the following months, with the hope of meeting again, this time on Spanish soil.

5. 5. Conclusions: We Are Open

The silent actor in this story was INAIL's "Signa" notebook. By symbolically providing space on its horizontal pages for ideas and knowledge generated through typical Web 2.0 approaches, it represents the beginning of more in-depth research into the learning and communication methods that are emerging in the new century.
The visuals for the communication campaign used for the MAXXI opening are an exemplary expression of this. The claim "We Are Open" and the icon-symbol, defined as a "sensory head", are the most appropriate metaphor to illustrate the physiognomy of the 21st century communicator.

45 See note 42.

SUMMARY

The 21st century communicator lives in a parametric city, he travels along creative paths, writes in a signposted way and takes notes with a mind map on a horizontal notebook.
Mind maps have an infinity of uses in the professional field, but they also serve to organise our daily lives, made up as they are of thoughts and actions. To sum up, so as not to lose control of the important aspects of our existence, overburdened by the imminence of the Economy of Conscience.
In this article we focus on the relationship between the "mind map and learning" and narrate the road that the Sapienza University in Rome and that of Cordoba travelled to put passion together with experience for a common project of in-depth learning and research.