

Creativity and Social Media

**Serempathy: A new approach to
innovation. An application to one hundred
twenty-six regions of European Union”**

Miguel Ángel Pesquera
Pablo de Castro
Pablo Coto-Millán
Pedro Casares Hontañón

Santander, 15 November 2011

- 01 The open context
- 02 Globalization: From Complexity to Serempathy concept
- 03 Model of application to one hundred twenty-six regions of Atlantic Arc countries
- 04 Serempathy Index for regions of Atlantic Arc countries in Europe.
- 05 Conclusions



Les Echos

LE QUOTIDIEN DE L'ÉCONOMIE

APPLE POURSUIT SON IRRÉSISTIBLE ASCENSION À WALL STREET PAGE 17

L'ACTIONNARIAT SALARIÉ À L'ÉPREUVE DE LA CRISE PAGE 3, L'ÉDITORIAL DE PHILIPPE ESCANDE ET LE POINT DE VUE PAGE 10

JEUDI 11 AOÛT 2011

Les banques françaises au cœur de la tempête boursière

■ Les banques européennes, françaises en tête, ont toutes plongé hier en Bourse ■ Les rumeurs les plus folles ont couru, touchant en particulier la Société Générale, qui a démenti catégoriquement

Company	Opening	Closing	% Change
SOCIÉTÉ GÉNÉRALE	27.34	22.18	-18.74%
BNP PARIBAS	40.38	35.61	-11.81%
NATIXIS	3.040	2.683	-11.74%
CRÉDIT AGRICOLE SA	7.125	6.073	-14.76%

L'ESSENTIEL

Travail dominical - une réforme à l'impact limité
La loi Mollat assouplissant le travail le dimanche fête ses deux ans. Elle n'a pas fait cesser la guérilla juridique. PAGE 3

Londres affiche sa fermeté face aux émeutiers
Le Premier ministre britannique a autorisé la police à utiliser balles en caoutchouc et canons à eau. La crainte de heurts interethniques monte. PAGE 5

Suisse et Allemagne banissent l'évasion fiscale
Berne et Berlin ont divulgué hier un accord destiné à empêcher l'évasion fiscale des Allemands vers la Suisse. PAGE 6

Saga - Ivy Lee, pionnier des relations publiques
Cet ancien journaliste a inventé la communication de crise au début du XX^e siècle. Avec une règle de base : dire la vérité. PAGE 9

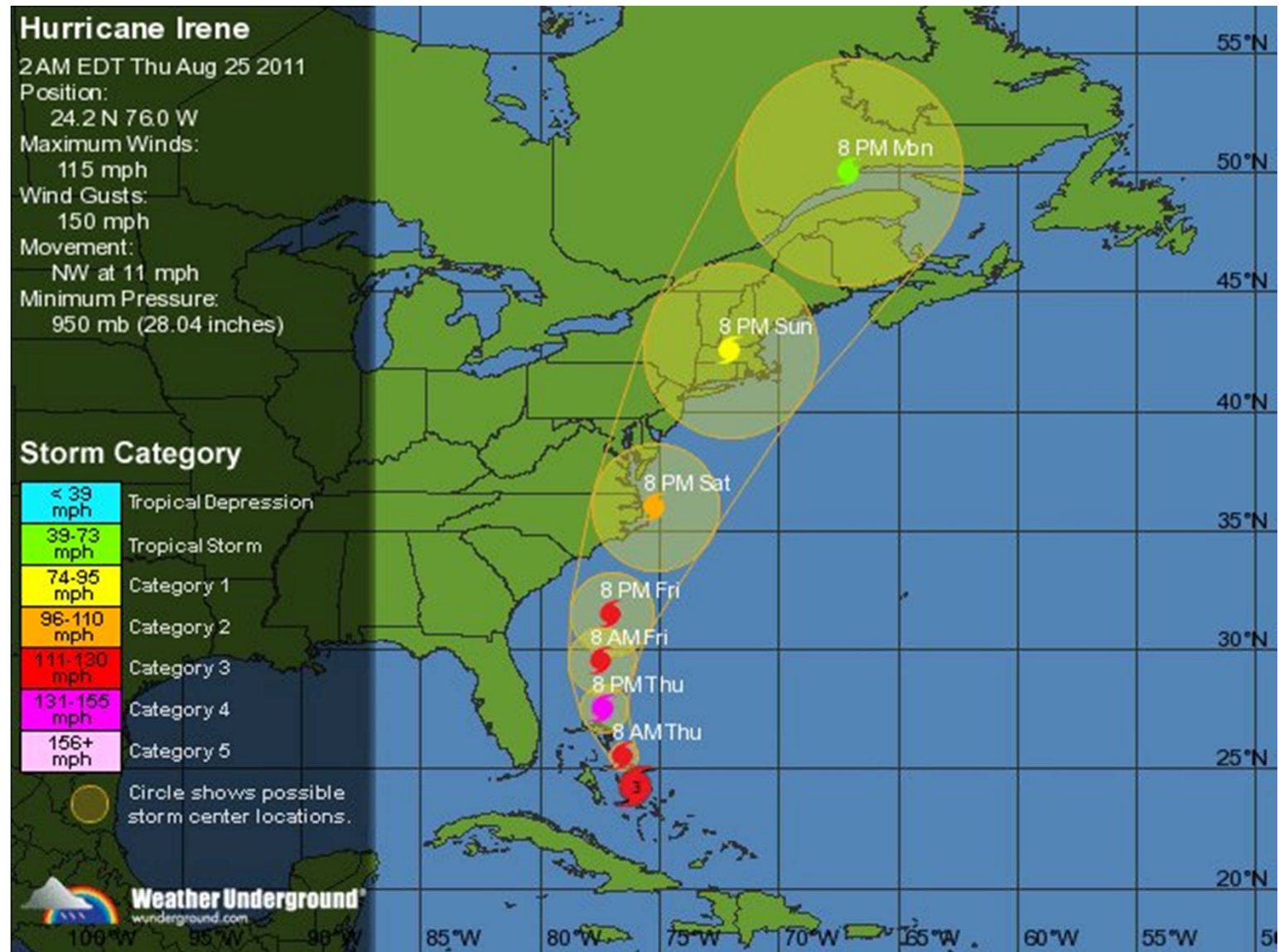
ENTREPRISES & MARCHÉS

CMA CGM inquiète les experts



Complexity: unexpected scenarios

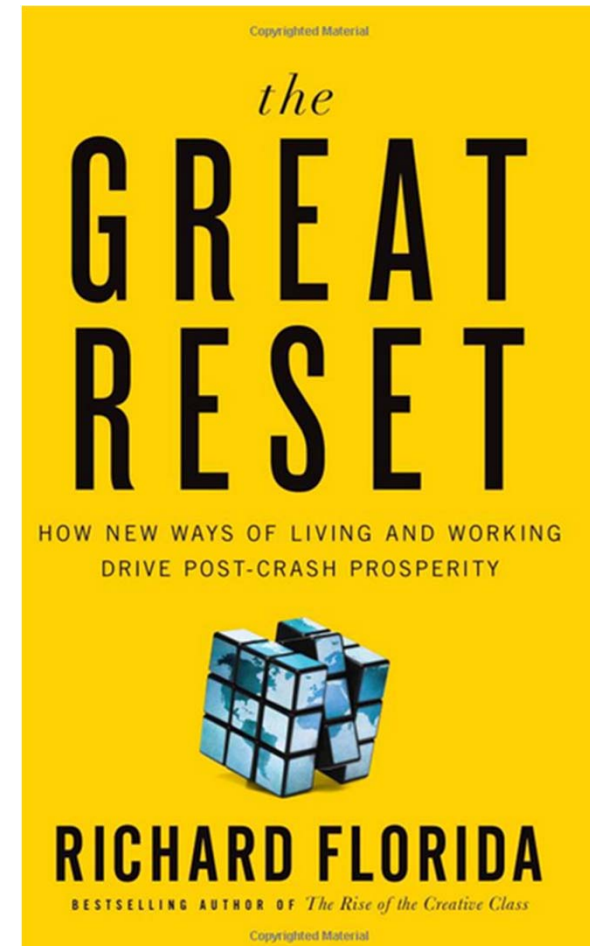
The hurricane Irene, New York August 27th 2011



CRISIS Today: The Great Reset

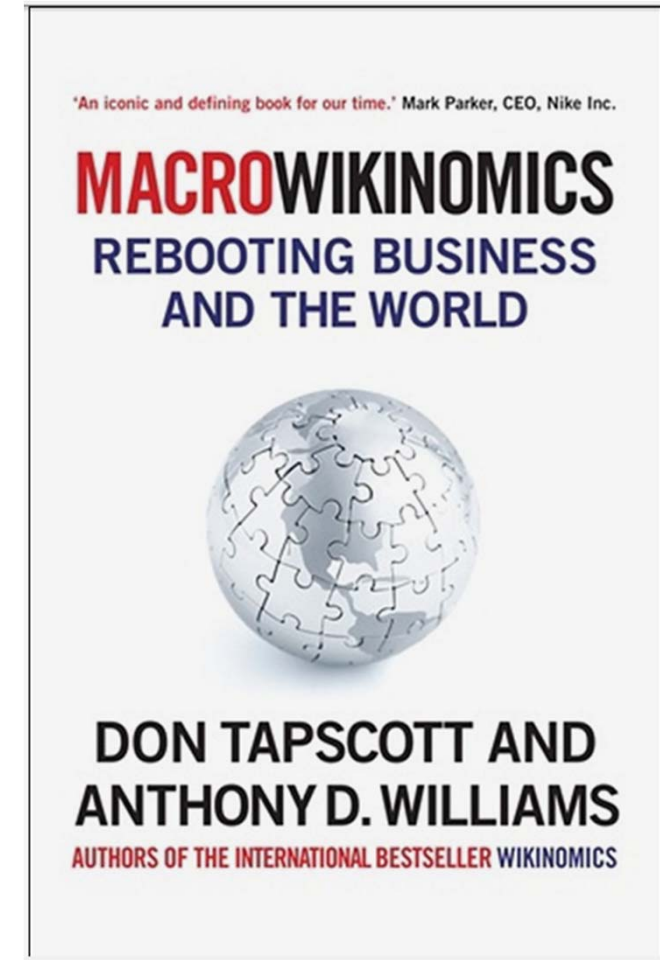
Richard Florida

“The First Great Reset occurred in the 1870's, the second in the 1930's, and the third is now under development”



CRISIS Today: **MACROWIKINOMICS** Don Tapscott and Anthony Williams

“The world has reached a critical turning point: **reboot all the old modelsSociety** has at its disposal the most powerful platform ever for bringing together the people, skills, and knowledge”



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A Complex Adaptative System

1. Heterogeneous Agents : makes decisions about how to behave that will evolve over time.
2. The agents interact with one another.
3. **EMERGENCE**: The whole becomes greater than the sum of the parts.

The system can't really understand the whole by simply looking at its individual parts.



Learning To Live with Complexity

*How to make sense of the
unpredictable and the
undefinable in today's
hyperconnected business
world by Gökçe Sargut and
Rita Gunther McGrath*



Learning To Live Complexity

Managers must learn to

- Limit or even eliminate the need for accurate predictions.
- Use decoupling and **redundancy**.
- Draw on **storytelling** and counterfactuals.
- **TRIANGULATE**: means attacking a problem from various angles
 - Using different methodologies
 - Making different assumptions
 - Collecting different data
 - Looking at the same data in different ways

FuturICT: New World vs. Old World

Our Previous World	Our New World
Separate or weakly connected system components, local or regional interactions	Strongly connected and interdependent system components, global interactions
Dominated by the (visible) system components	Dominated by their (invisible) interactions
Simple system behaviour	Complex system behaviour
Sum of properties of individual system components characterizes system behaviour	Emergent collective behaviour, implies new (and often unexpected) system behaviour
Conventional wisdom works well	Counter-intuitive behaviour, extreme events are common
Well predictable and controllable in top-down fashion	Less predictable, management by setting rules for bottom-up self-organization

WHERE IDEAS COME FROM Kevin Kelly and Steven Johnson

“Why the best environments for creativity are diverse, collaborative and tolerance of failure.
WIRED Oct 2010”



WHERE IDEAS COME FROM

Kevin Kelly and Steven Johnson

- We should think of IDEAS as connections, in our brain and among people.
- Ideas aren' t self-contained things; they' re more like ecologies and networks.
- Ideas travel in clusters.

Coral reef as a model of innovation

Steven Johnson

- Ecosystems that form in the portion near the coast that is under a shallow depth water.
- Often called “rainforests of the sea”, coral reefs form some of the most diverse ecosystems on earth.
- Vulnerable to certain natural events, pollution, sedimentation.

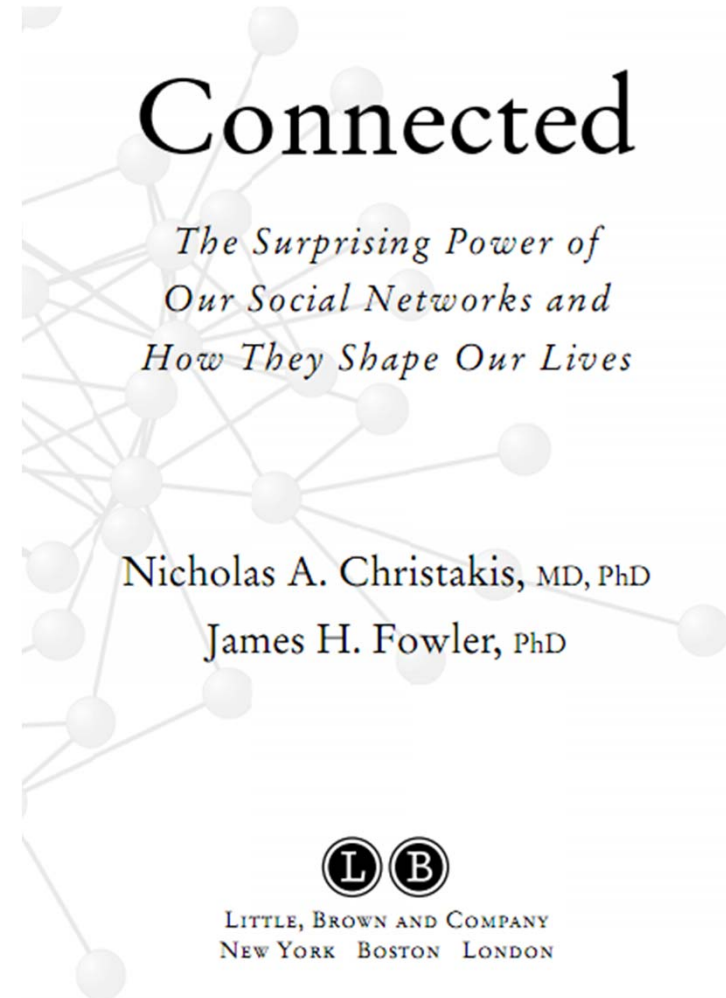


SEREMPATY: New theoretical approach to innovation

- It is the combination of **serendipity** (which is achieved by chance) **and empathy** (putting yourself in the other).
- Is "**contact with luck**," the use of empathy for what we want to randomly.

CONNECTED: The Surprising Power of Our Social Networks and How They Shape Our Lives

«Sensitive, aware people perceive on a daily basis that actions, behaviors and emotions impact the lives of those around us.»



EMPATHY : MIRROR NEURONS (G. Rizzolatti)

- We are social creatures. Our survival depends on understanding the actions, intentions and emotions of others.
- A mirror system in people forms the basis for social behavior, for our ability to imitate, acquire language, and show empathy and understanding.
- Mirror neurons allow us to understand the mind of others, not only through conceptual reasoning but through direct simulation. Feeling, not thinking.

SERENDIPITY

- Is the faculty of finding things we did not know we were looking for. It also means finding people, and the knowledge they carry with them.
- Serendipitous encounters offers privileged access to tacit knowledge and rare insight into new opportunities



SEREMPATHY: encounters not so casual

- Serendipity choices easier, creating an energy field that increases our ability to attract people and resources we did not know of its existence.
- Unexpected encounters with people, which correspond to similar **memes*** are more based on behaviors that in your plan or program of rationality.
- The behaviors that feed on common **memes** generate Serempathy.

*an idea, behaviour or style that spreads from person to person within a culture

SEREMPATHY: key Concepts

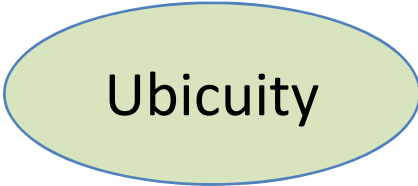
- Meme*
- Connectors. Supernodes.
- Strong and weak links.
- Vortex
- Digital Footprint



The Field



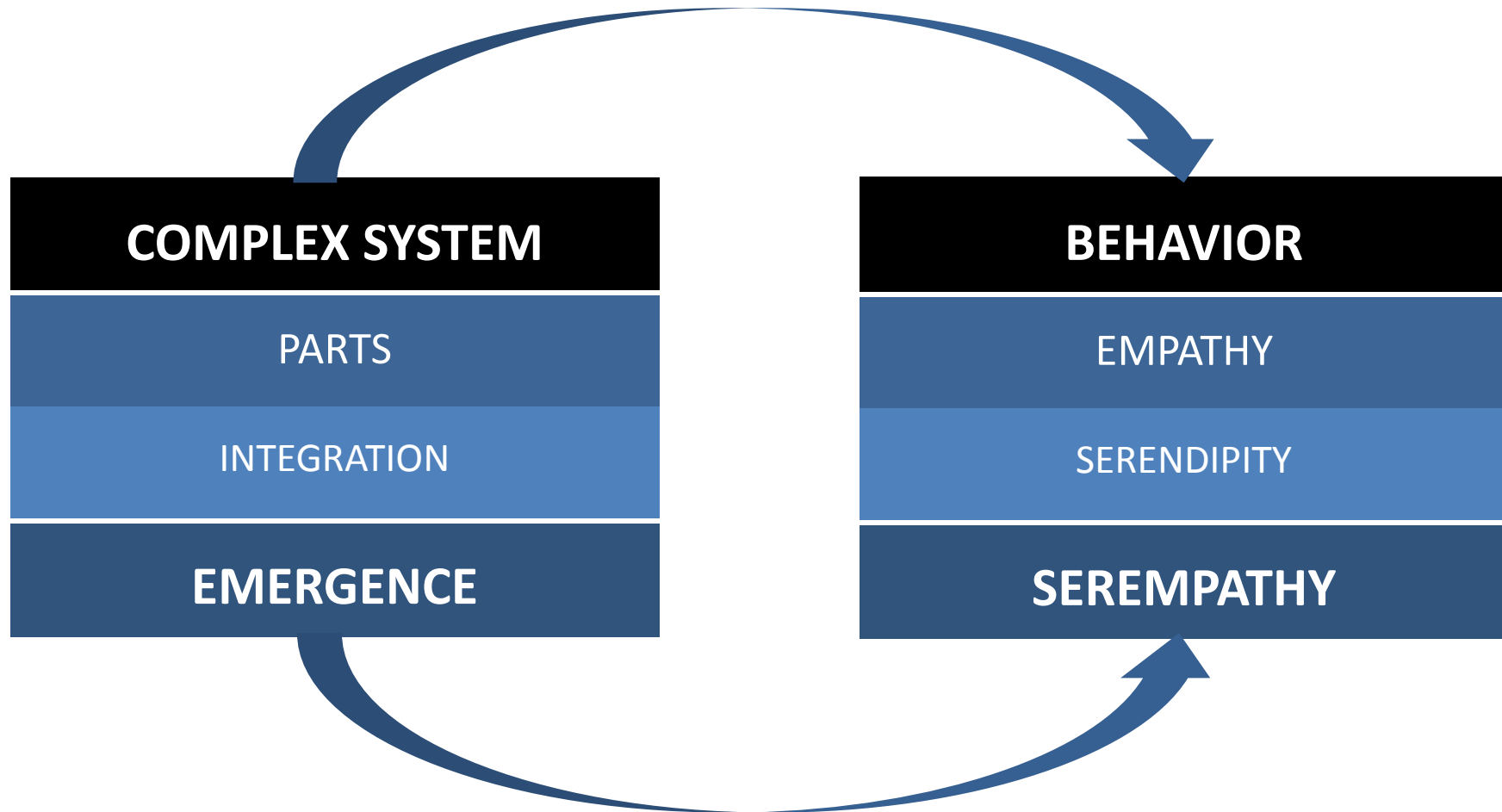
Overlap



Ubiquity

*an idea, behaviour or style that spreads from person to person within a culture

COMPLEX SYSTEM need SEREMPATHY



EMERGENCE: PULL PLATFORMS

- Mobilize a wide variety of resources that on hand to help whoever comes in with a problem.
- Are designed to flexibly accommodate diverse providers and users of resources.
- These platforms rapidly evolve in unexpected directions and end up serving a broad range of needs.

Platforms for Managing Complexity



Google™

twitter

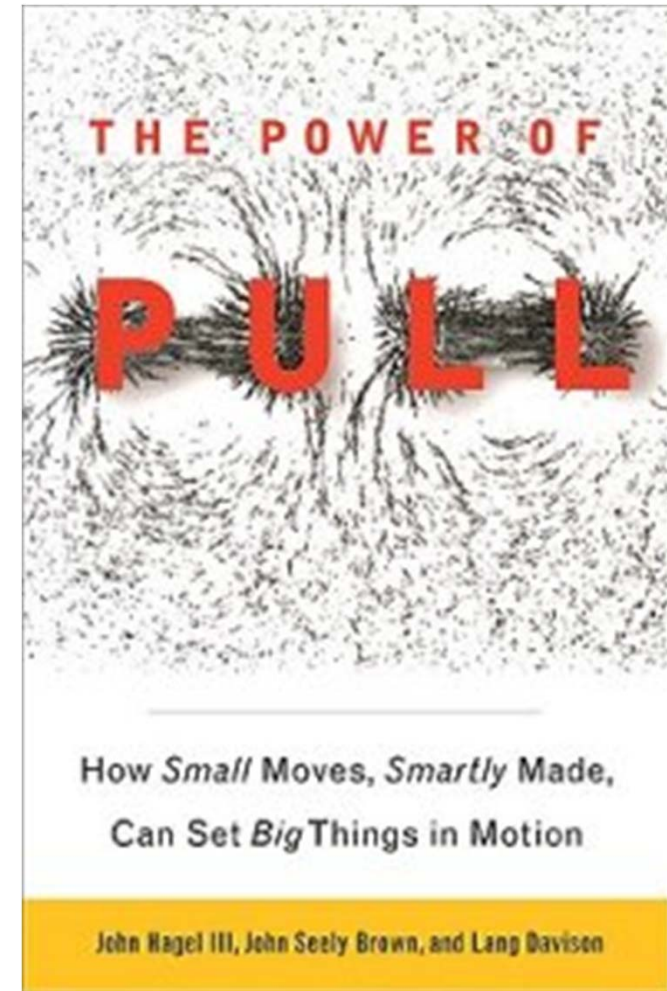
LinkedIn

facebook®

Pull Economy: The Power of Pull

John Hagel III, John Seely Brown

“The book's central premise is that *institutions will be shaped to provide platforms to help individuals achieve their full potential by connecting with others and better address challenging performance needs.* This is greatly possible thanks to the use of technology and digital media.”



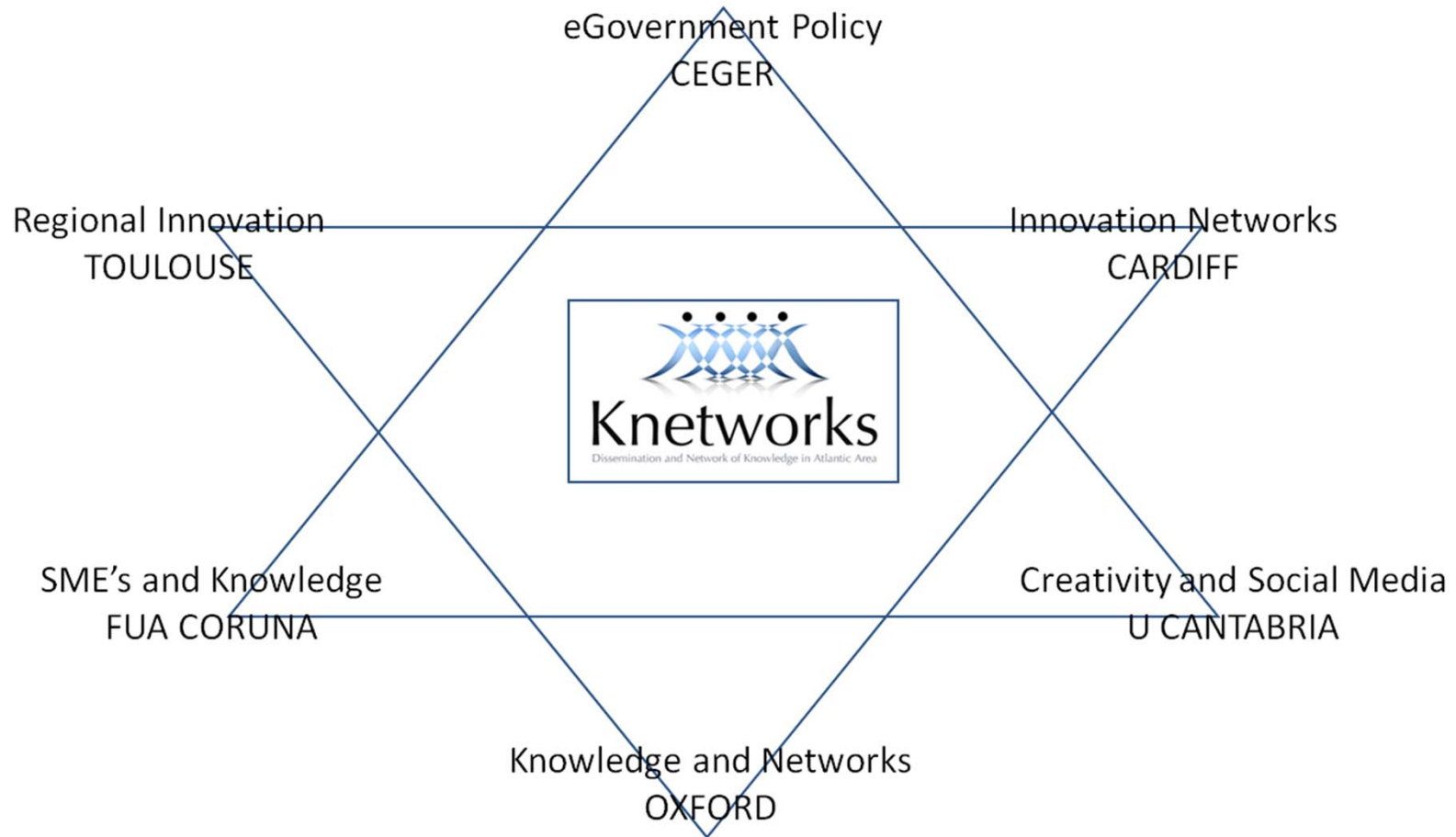
SEREMPATY: The Power of Pull

Three principles

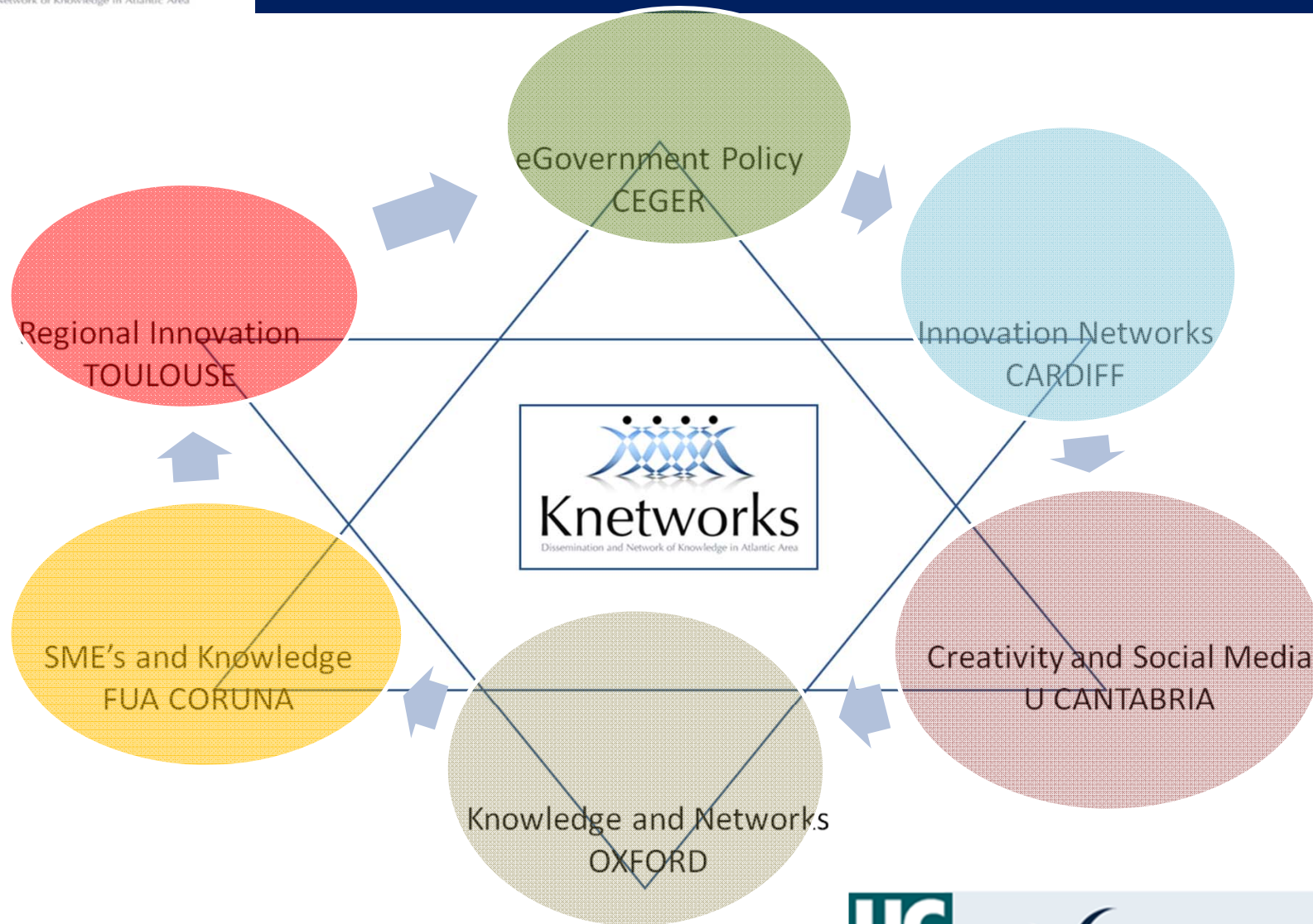
- **Access** people and resources where you need them (Empathy).
- **Attract** people and resources you didn't even know existed (Serendipity).
- **Achieve** potential with less time and more impact than you imagined possible (Serempathy).

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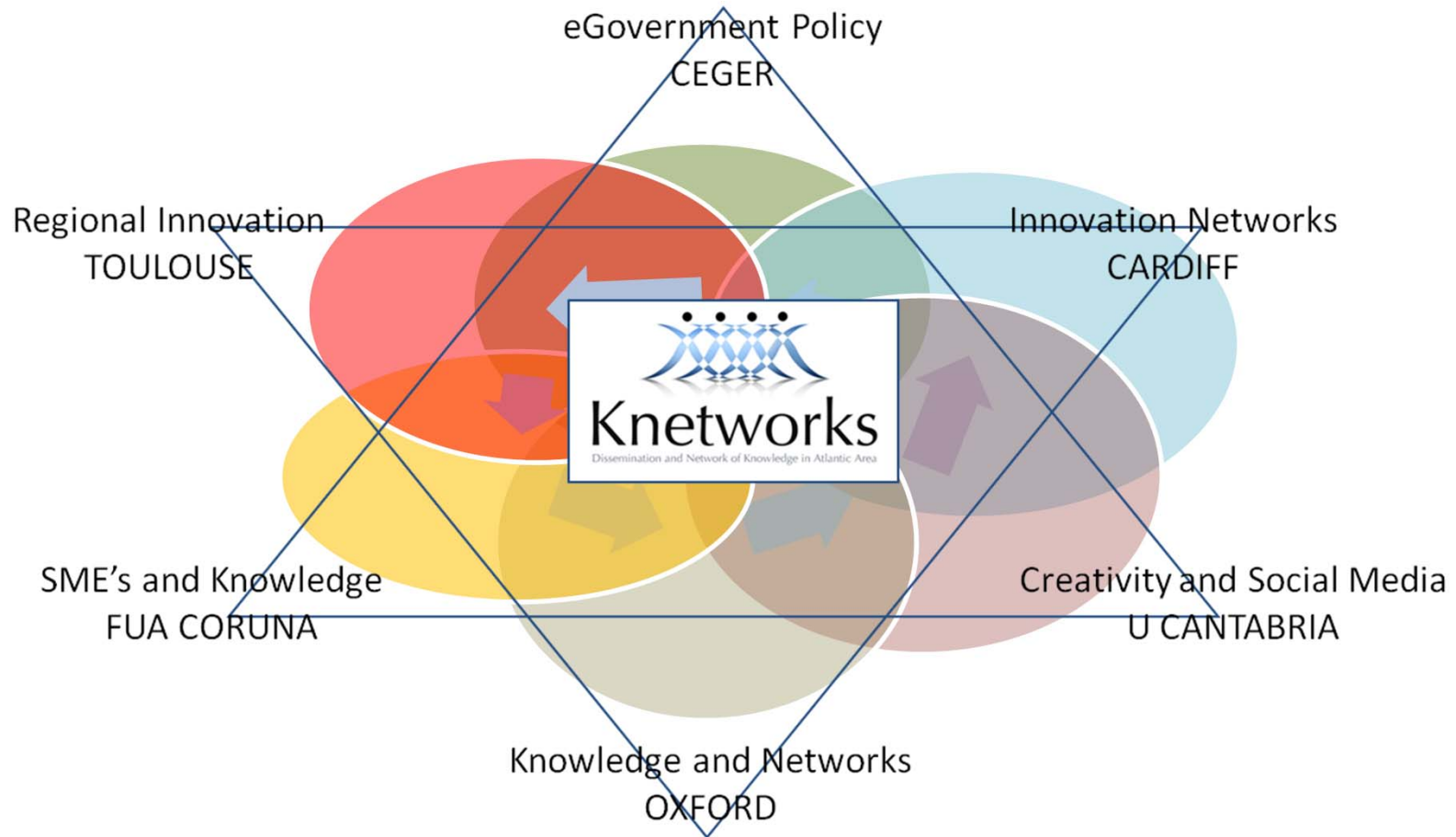
Knetworks Atlantic Area Project Creation of European Knowledge Center (EKC)



Creation of European Knowledge Center (EKC) From Stars



Creation of European Knowledge Center (EKC) To Hibrid Model



The Data

- The European Commission in order to track innovation in European regions has made a recent report (2009) which includes lots of indicators for the years 2004 and 2006 made with the same definitions and methodology.
 - **Human Capital**
 - **Technological Capital**
 - **Relational Capital**

HUMAN CAPITAL INDEXES FOR THE REGIONS OF THE ATLANTIC ARC

REGION	Human Capital Index	Tertiary education	Life-long learning
Galicia	4.65	5	4.3
Principado de Asturias	4.24	4.34	4.14
Cantabria	3.53	3.71	3.35
Pais Vasco	5.16	4.1	6.22
Comunidad de Navarra	5.77	5.39	6.14
La Rioja	3.93	3.35	4.51
Aragón	4.36	4.16	4.55
Comunidad de Madrid	6.15	6.27	6.03
Castilla y León	4.61	4.52	4.71
Castilla-la Mancha	3.39	3.43	3.35
Extremadura	4.19	5.15	3.22
Cataluña	5.34	5.05	5.62
Comunidad Valenciana	4.92	5.58	4.26

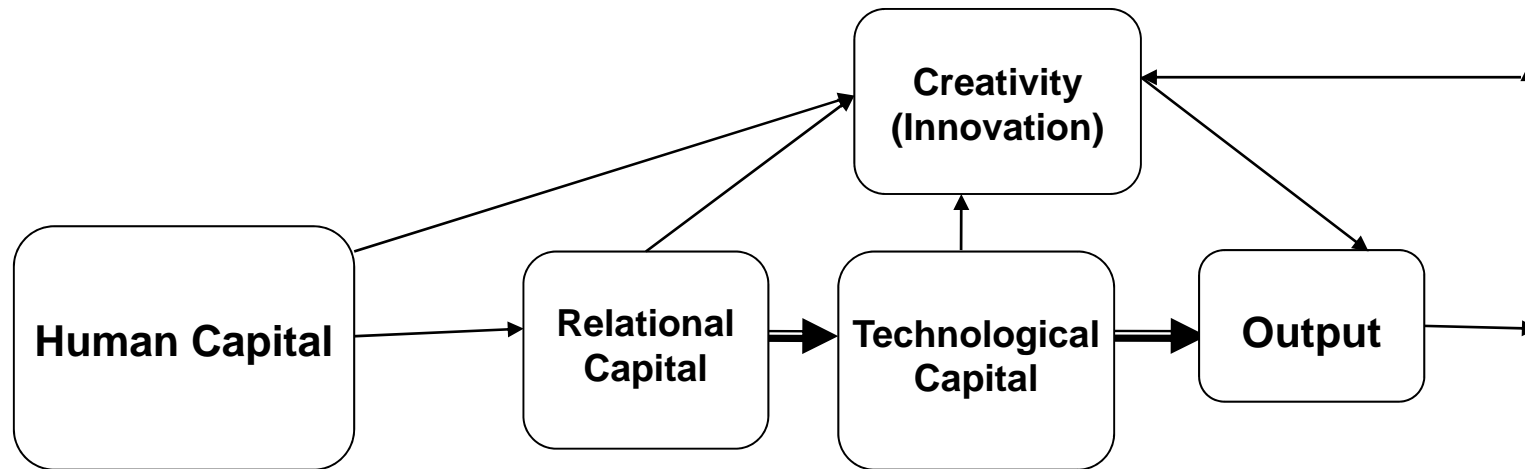
TECHNOLOGICAL CAPITAL INDEXES FOR THE REGIONS OF THE ATLANTIC ARC

REGION	Technological Capital Index	Public R&D expenditures	Business R&D expenditures
Galicia	4.65	5	4.3
Principado de Asturias	4.24	4.34	4.14
Cantabria	3.53	3.71	3.35
Pais Vasco	5.16	4.1	6.22
Comunidad Foral de Navarra	5.77	5.39	6.14
La Rioja	3.93	3.35	4.51
Aragón	4.36	4.16	4.55
Comunidad de Madrid	6.15	6.27	6.03
Castilla y León	4.61	4.52	4.71
Castilla-la Mancha	3.39	3.43	3.35
Extremadura	4.19	5.15	3.22

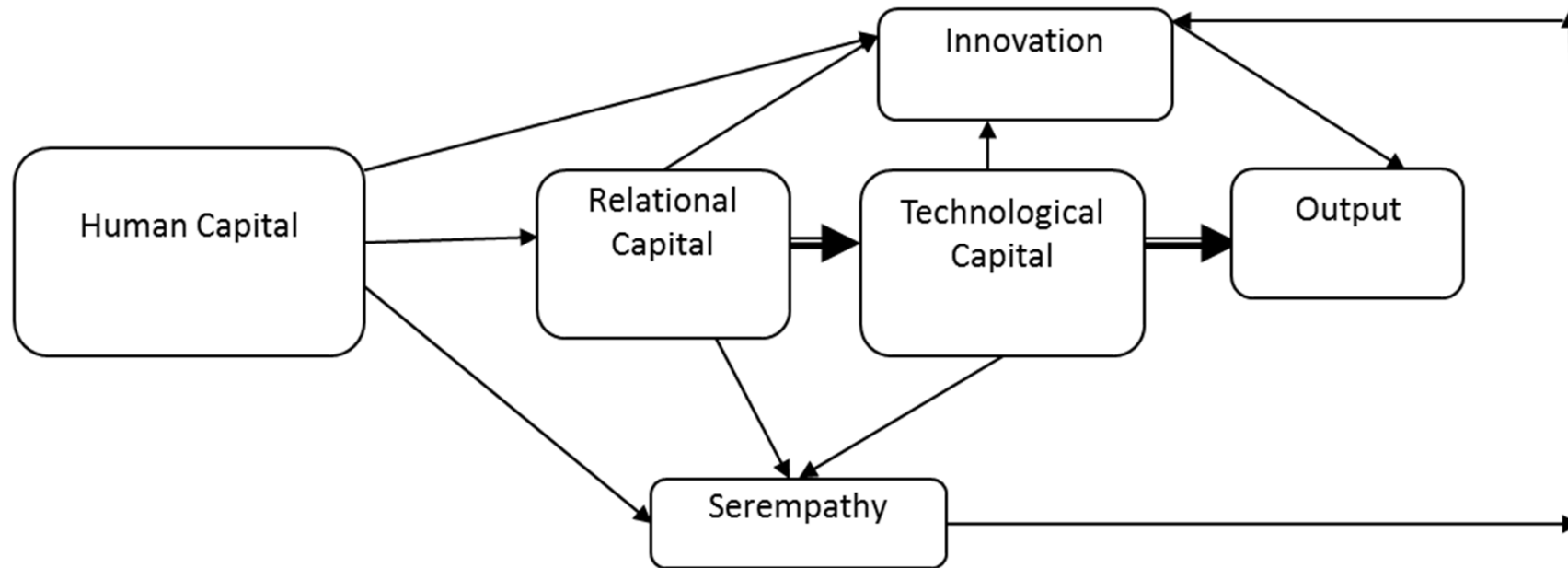
RELATIONAL CAPITAL INDEXES FOR THE REGIONS OF THE COUNTRIES OF THE ATLANTIC ARC

REGION	Relational Capital Index	SMEs innovating in-house	Innovative SMEs collaborating with others
Galicia	2.88	2.87	2.89
Principado de Asturias	3.21	3.8	2.62
Cantabria	3.43	4.14	2.71
Pais Vasco	4.79	5.06	4.53
Comunidad Foral de Navarra	4.81	5.1	4.53
La Rioja	3.53	3.77	3.3
Aragón	3.97	4.32	3.62
Comunidad de Madrid	3.31	4.28	2.35
Castilla y León	3.28	3.71	2.85
Castilla-la Mancha	2.51	3.82	1.2
Extremadura	2.37	2.34	2.4
Cataluña	4.12	5.25	3
Comunidad Valenciana	3.27	4.01	2.72

Structure of the relationships between Human, Technological and Relational Capital with Creativity and Output



Structure of the relationships between Human, Technological and Relational Capital with Innovation and Output



The Model: the case of Atlantic Arc

$$f(y_1, y_2, y_3) = I = \gamma y_1^{\alpha_1} y_2^{\alpha_2} y_3^{\alpha_3}; (\gamma > 0, \alpha_i > 0) \quad (1.1)$$

$$\text{Log } I_{i,t} = \gamma_{1,0} + \alpha_{1,1} \text{Log } y_{1,t} + \alpha_{1,2} \text{Log } y_{2,t} + \alpha_{1,3} \text{Log } y_{3,t} + \varepsilon_1 \quad (1.2)$$

The Variables

1. Dependent Variable: Innovation (Patents)
2. Independent Variables are the following:
 - Indexes of Human Capital
 - Indexes of Technological Capital
 - Indexes of Relational Capital

Results, equation 1.2

	Equation (1.2.a)		Equation (1.2.b)
Independent Variables	LnCreativity (Patents)		LnCreativity (Patents)
Constant	-0.030 (-0.610)		-0.910 (-0.363)
LnHuman Capital(Ln y₁₁) (Tertiary Studies)	0.130*** (4.453)		0.077*** (2.443)
LnThecnological PUBCapital (Ln y₂₁)	0.277*** (5.018)		0.197*** (3.407)
LnThecnological PRIVCapital(Ln y₂)	0.917*** (16.211)		0.898*** (12.031)
LnRelationalCapital (Colaborations in innovation with enterprises) (Ln y₃₁)	0.040* (1.953)		0.038* (1.892)
LnSocialMediaCapital (Broadband Networks) (Ln y₃₂)	-		0.125 (3.925)
126 Regions: Observations	N	378	378
Estatistics	R ²	0.678	0.691

Results, equation 1.2

- The ratio between the Human Capital and innovation is significant. Technology Capital has a direct effect on the innovation.
- Relational Capital of the innovative collaborations between companies is also significantly related with the innovation.
- Innovation is explained reasonably well by the three key variables Human, Technological and Relational Capital.

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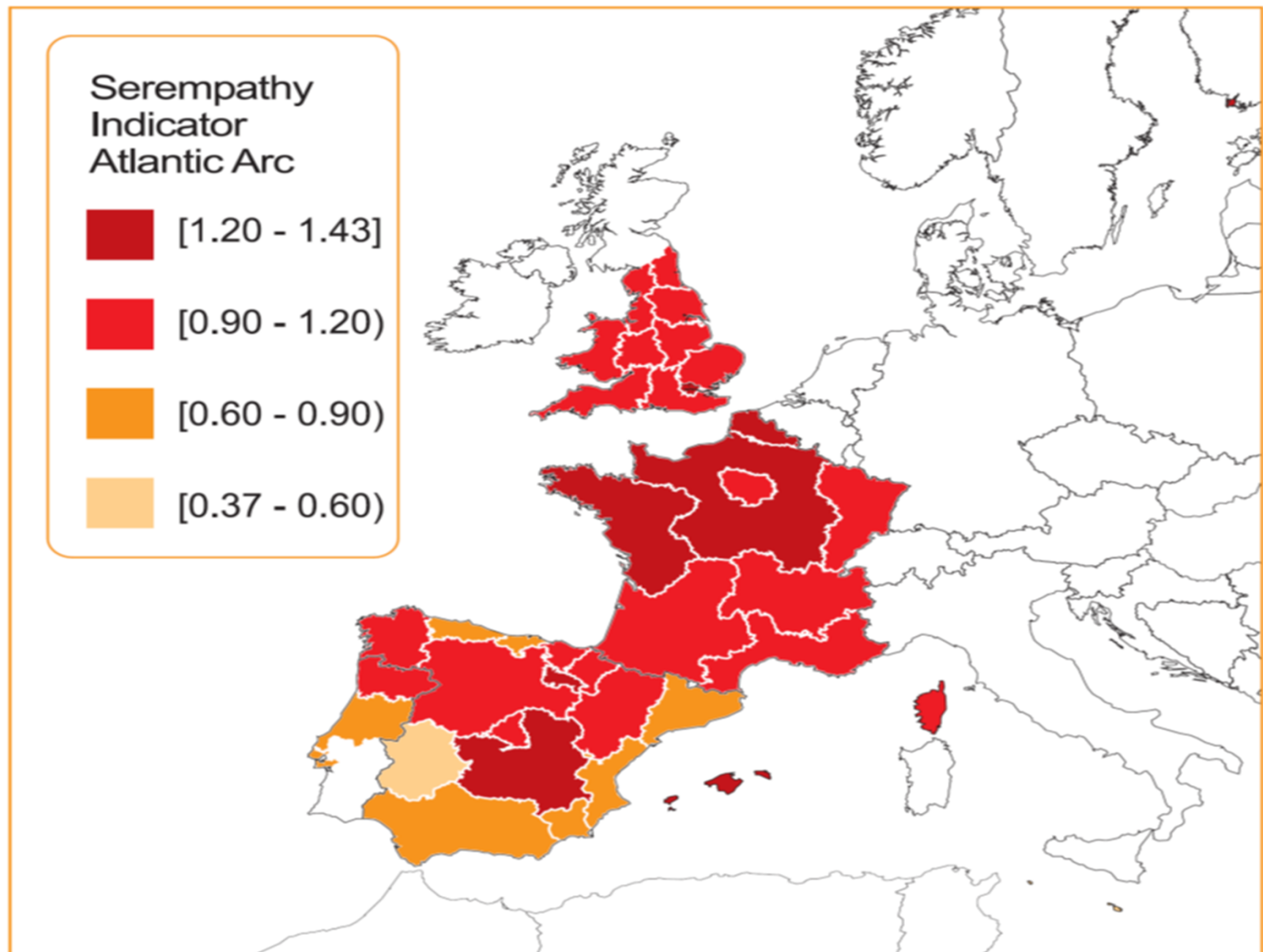
Serempathy Index

- From equation 1.2.a the results obtained for the countries of the Atlantic Arc in relation to the so-called Serempathy Indicator of the regions of the countries studied.

$$S_t = [1 - (\hat{I}_t - I_t)]$$

- Where S_t is Serempathy in period t , \hat{I}_t is estimated innovation in equation 1.2.a and period t , and I_t is innovation in period t .

Serempathy Index Atlantic Arc 2011



Serempathy Index

- The Atlantic Arc regions, particularly the English seem to have a significant Serempathy indicator. In France, Spain, and Portugal are the leading regions in Serempathy indicator Bassins Parissin, Ile de France, Nord-Pas de Calais, Rioja, Castilla La Mancha, Navarra, Cataluña, Valencia and Illes Ballears, Norte and Centro.
- The rest of English regions together, and some of the regions of other countries, also get average scores. This is the case of Lisbon, Wales, Yorkshire and the Humber, País Vasco, Galicia, Asturias, Castilla-León, Aragón, Cantabria and Madrid.
- The remaining regions are facing significant competitive challenges in aspects of Serempathy.

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Conclusions (1)

- Human Capital has a direct effect over the Creativity (Number of patents). Human Capital operates as a crucial intermediate variable in the process of economic growth which connects the factors outside the market or related to technological innovation.
- Technological Capital or the technological platform has an important role in generating innovation.
- It is surprising the high explanatory power of the new Relational Capital, defined here. It seems that collaborative relations between universities, private companies and public administrations, this is, the Relational Capital, are significantly associated with the generation of Innovation.

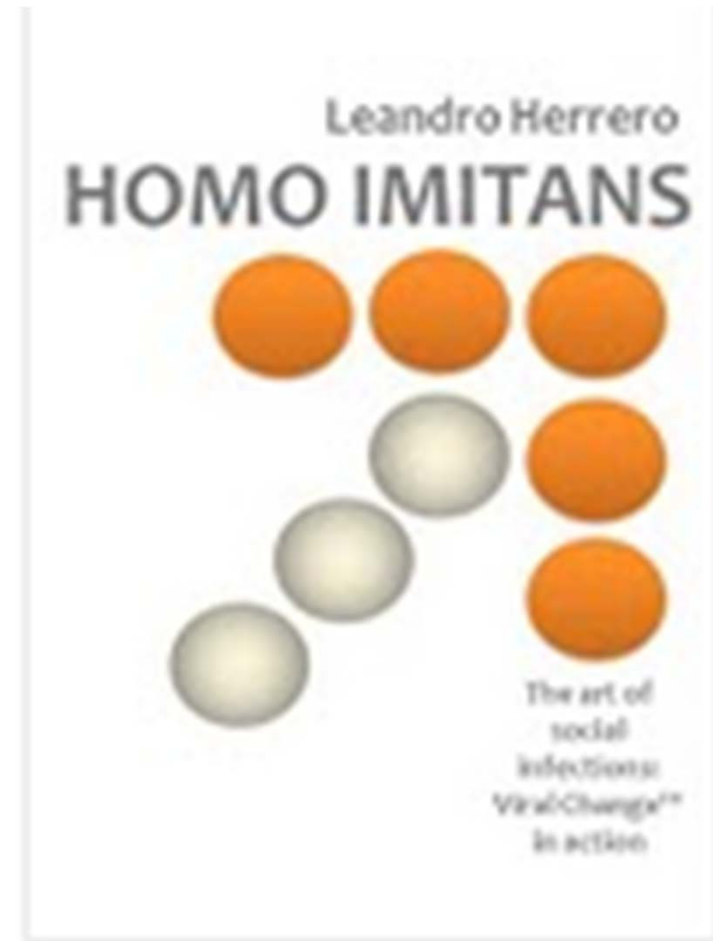
Conclusions (2)

- The relational factors (outside the market) have positive and relevant role in the production of Technological Capital and Innovation.
- The three factors of Human, Technological and Relational Capital do not operate in competition with each other, but they tend to act playing complementary roles in the process of generating innovation.
- However, there is something more, is what we call Relational Capital, not reflected so far in the economic literature, which is what in our opinion stimulates the impulse of the implementation of innovation.

HOMO IMITANS: *We are* because we copy

The art of social infection: Viral Change™ in action

The fundamental proposition of the book is that “**the only change is behaviour change**” and that this is brought about primarily through people copying the behaviours of others.



Contrasting ‘worlds’ of organizational change

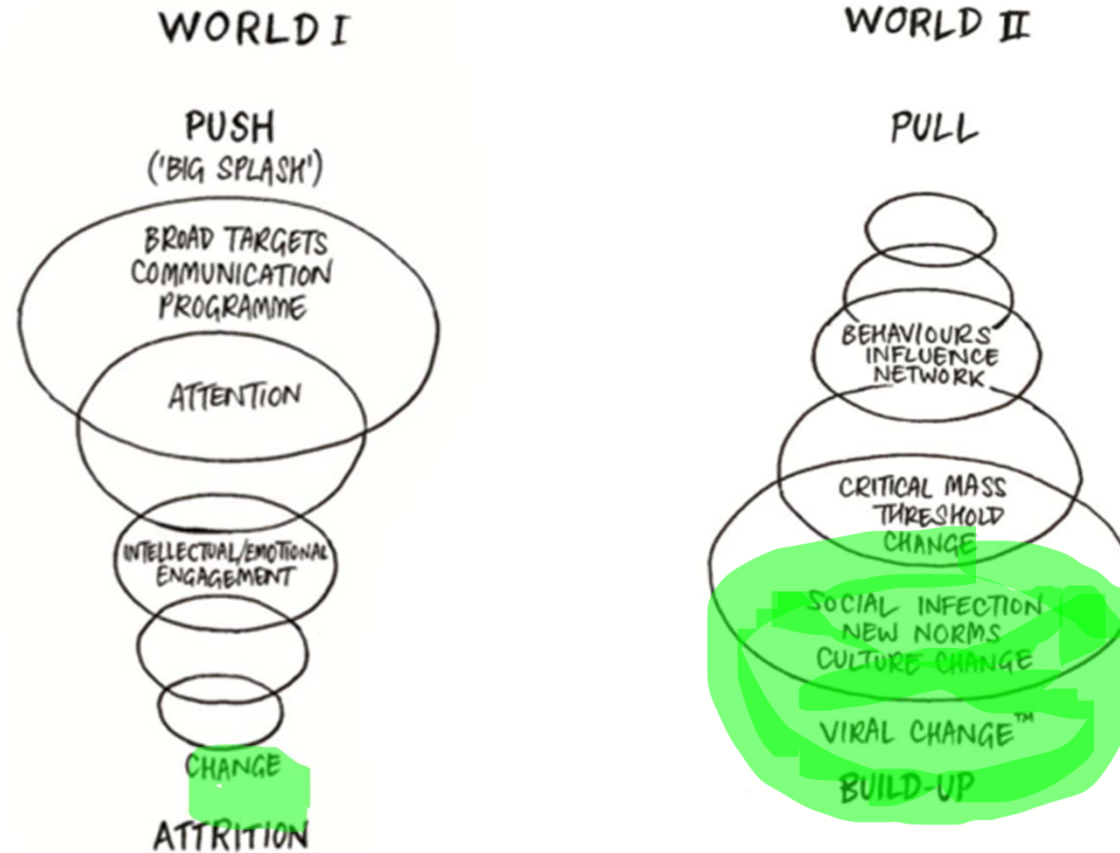
From cogito ergo sum to copy ergo sum

Leandro Herrero

- **“World I” is ruled by Homo Sapiens.** It is the “world of communication”, in which messages are sent in a range of sophisticated ways, to **“push”** people towards the desired changes
- **“World II” is ruled by Homo Imitians.** It is the “world of behaviours”, in which the Viral Change can be applied to **“pull”** people towards the desired goal through the dynamics of social infection.

PUSH to PULL

Leandro Herrero



From Traditional Change to Viral Change

Leandro Herrero

Traditional change = Big initiative **X** all management layers **X** communication channels

Viral change = Small set of behaviours **X** small number of people **X** networks of influence

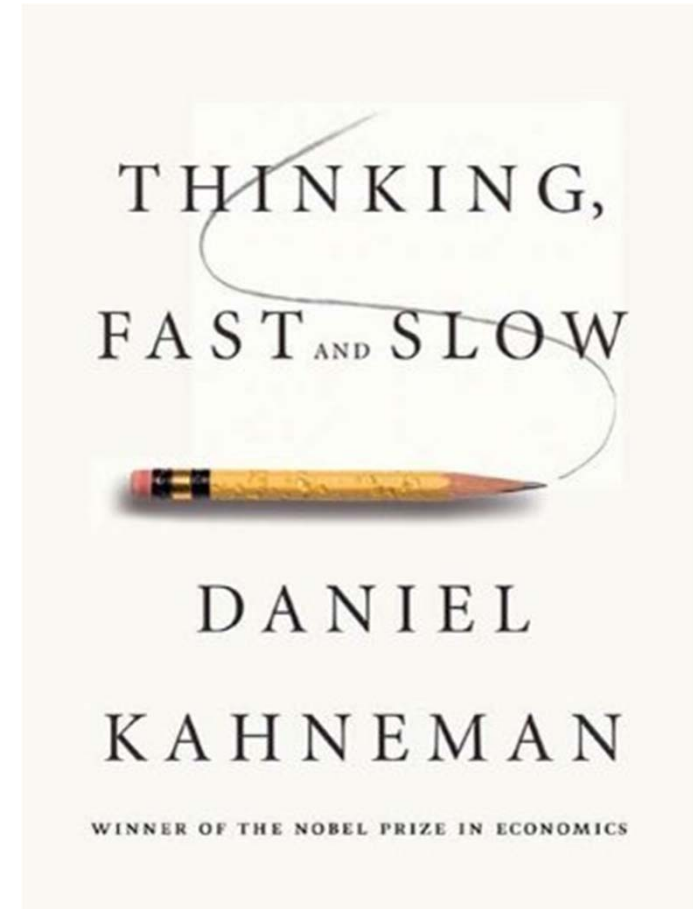
Thinking, FAST and SLOW

Daniel KAHNEMAN. October 2011

«Two systems drive the way we think and make choices:

System One is fast, intuitive, and emotional

System Two is slower, more deliberative, and more logical.»



New product
development involves
some:

- **Art**
- **Science**
- **Serendipity**



June 2011 Harvard Business Review 63

Manage Your Energy, Not Your Time

Harvard Business Review 2007

MANAGING YOURSELF

Manage Your Energy, Not Your Time

by Tony Schwartz and Catherine McCarthy