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# A Short Introduction to Scientific Publishing

**Consorcio Universitario de la Comunidad de Madrid**

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**Southern Europe, Russia & Northern Africa**

# Scientific Publishing

- Original reports of data/theory
- Assert priority
- Correspondence between scientists
- Paper making technology (China 105)
- Movable-type printing (China 1040)
- "Gutenberg" printing technology (Korea <1403)
- Silver & gold from America (1492-)
- The two first scientific journals (1665)
  - Philosophical Transactions (London)
  - Journal des Savants (Paris)

LE  
JOVRNAL  
DES  
SCAVANS

Du Lundi V. Janvier M. D C. LXV.

Par le Sieur DE HEDOVILLE.



A PARIS,

Chez JEAN CUSSON, rue S. Jacques, à l'Image de S. Jean Baptiste.

M. D C. LXV.

AVEC PRIVILEGE DU ROI.

(1)

Num. 1.

PHILOSOPHICAL  
TRANSACTIONS.

Munday, March 6. 1665.

The Contents.

*An Introduction to this Trait. An Accempt of the Improvement of Optick Glasses at Rome. Of the Observation made in England, of a Spot in one of the Belts of the Planet Jupiter. Of the motion of the late Comet predicted. The Heads of many New Observations and Experiments, in order to an Experimental History of Cold; together with some Thermometrical Discourses and Experiments. A Relation of a very odd Monstrous Calf. Of a peculiar Lead-Ore in Germany, very useful for Essays. Of an Hungarian Bolus, of the same effect with the Bolus Armenius. Of the New American Whale-fishing about the Bermudas. A Narrative concerning the success of the Pendulum-watches at Sea for the Longitudes; and the Grant of a Patent thereupon. A Catalogue of the Philosophical Books published by Monsieur de Fermat, Counsellour at Thoulouse, lately dead.*

The Introduction.

**X**HEREAS there is nothing more necessary for promoting the improvement of Philosophical Matters, than the communicating to such, as apply their Studies and Endeavours that way, such things as are discovered or put in practise by others: it is therefore thought fit to employ the Press, as the most proper way to gratifie those, whose engagement in such Studies, and delight in the advancement of Learning and profitable Discoveries, doth entitle them to the knowledge of what this Kingdom, or other parts of the World, do, from time to time, afford, as well

A

of

PHILOSOPHICAL  
TRANSACTIONS:  
GIVING SOME  
ACCOMP'T  
OF THE PRESENT  
Undertakings, Studies, and Labours  
OF THE  
INGENIOUS  
IN MANY  
CONSIDERABLE PARTS  
OF THE  
WORLD.

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Vol I.

For Anno 1665, and 1666.

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In the SAVOY,  
Printed by T. N. for John Martyn at the Bell, a little with-  
out Temple-Bar, and James Allestry in Dusk-Lane,  
Printers to the Royal Society.

Presented by the Author May. 30<sup>th</sup> 1667.

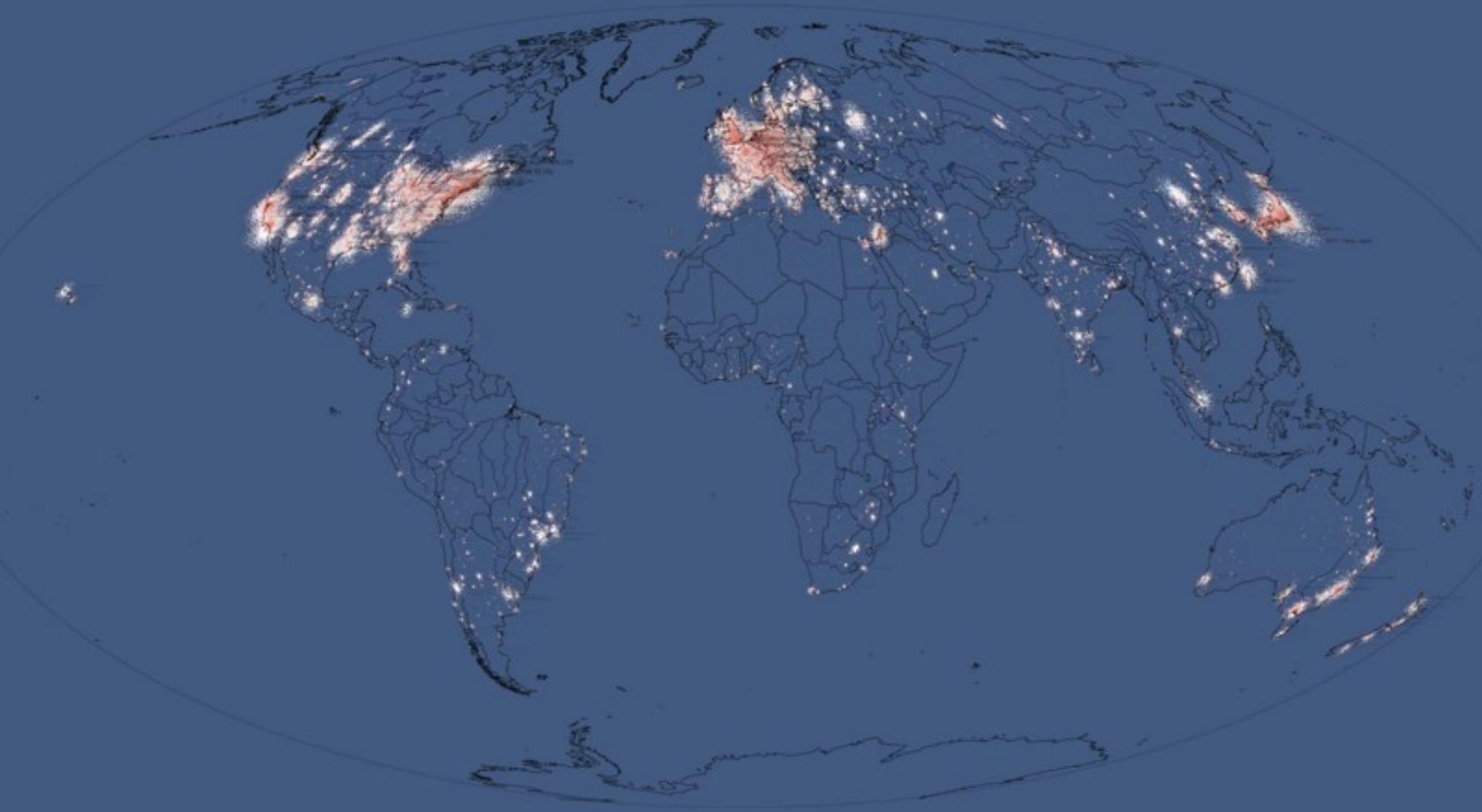
## Scientific Journals

- Acceleration around 1760
- Since then: doubling every 15-20 years
- (Springer 1842. Politics, agriculture, mathematics)
- 1880: articles often 200-300 pages
- 1920: research split up in many short articles
- Now over 120.000 journals/report series
- Approx 19.000 peer reviewed
- 1.2M peer reviewed articles/year, by 2000 publishers, read by 12M scientists
- 1969 – Internet
- 1989 – WWW
- 1991 – arXiv at LANL
- (SpringerLINK 1997)

## Some WWW data

- Enquire Within Upon Everything (1856) – Norsk Data Sintran III (1980)
- First proposal by Tim Berners-Lee (1989)
- Robert Cailliau/TBL names WWW (1990)
- First Browser – NeXT (1990)
- Line mode browser released on IBM VM/CMS (1990)
- SLAC server (1991)
- 26 servers world-wide (1992)
- Mosaic for X (1993)
- First Swedish web server (May 1993)
- First Swedish library web server (November 1993)
- Over 200 servers world-wide (1993)

# GEOGRAPHIC MAP: WHERE SCIENCE GETS DONE



## Journal publishing is changing

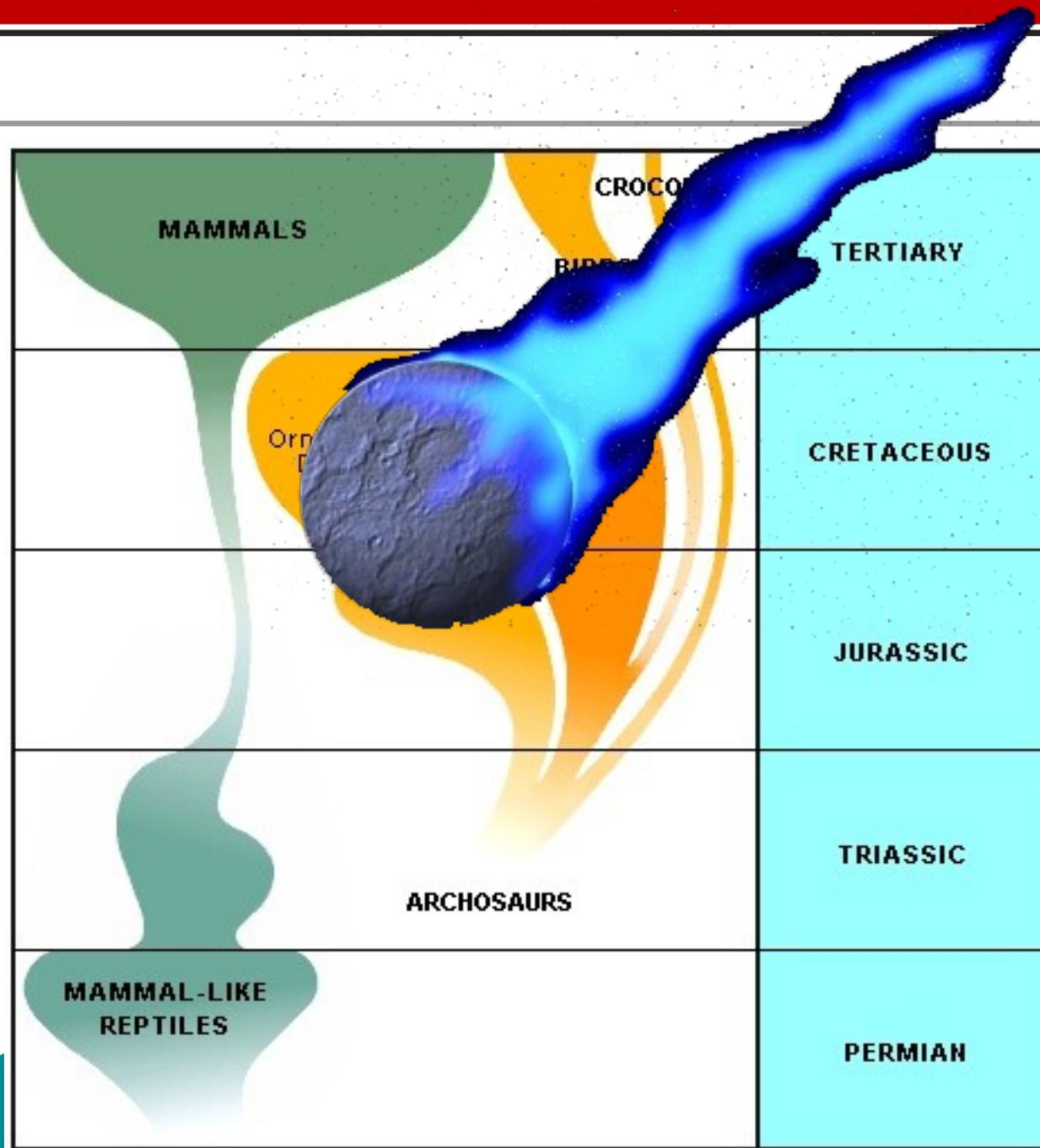
- from print on paper to print on line
- from individual libraries to consortia
- from subscriptions to licences
- from individual titles to collections
- from journals to articles

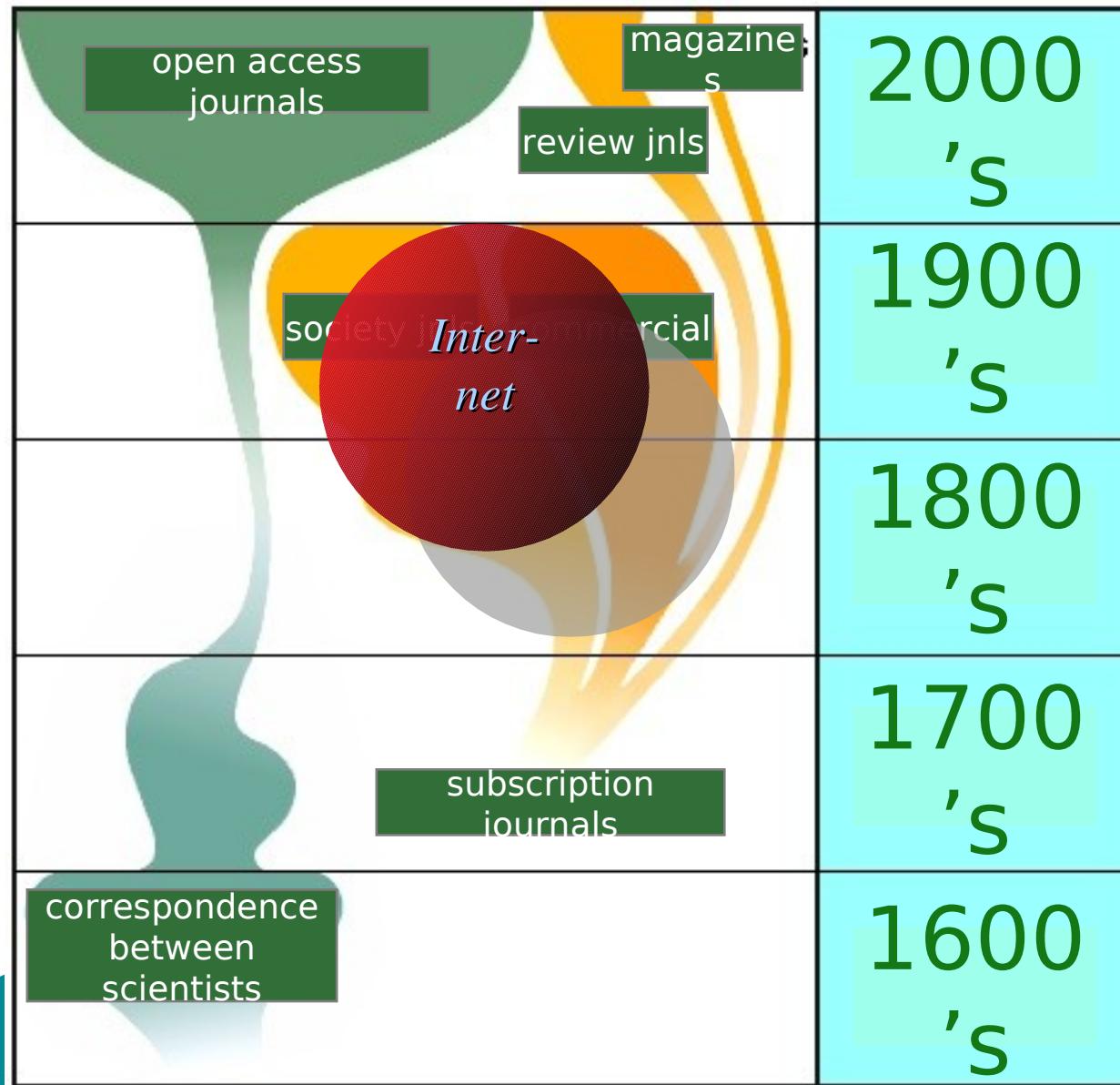
## Expectations are also changing

- from selection to comprehensiveness
- from print to electronic
- from textual to multi-media
- from fast to immediate
- from browsing to searching
- from dissemination to formalization
- from reading to mining

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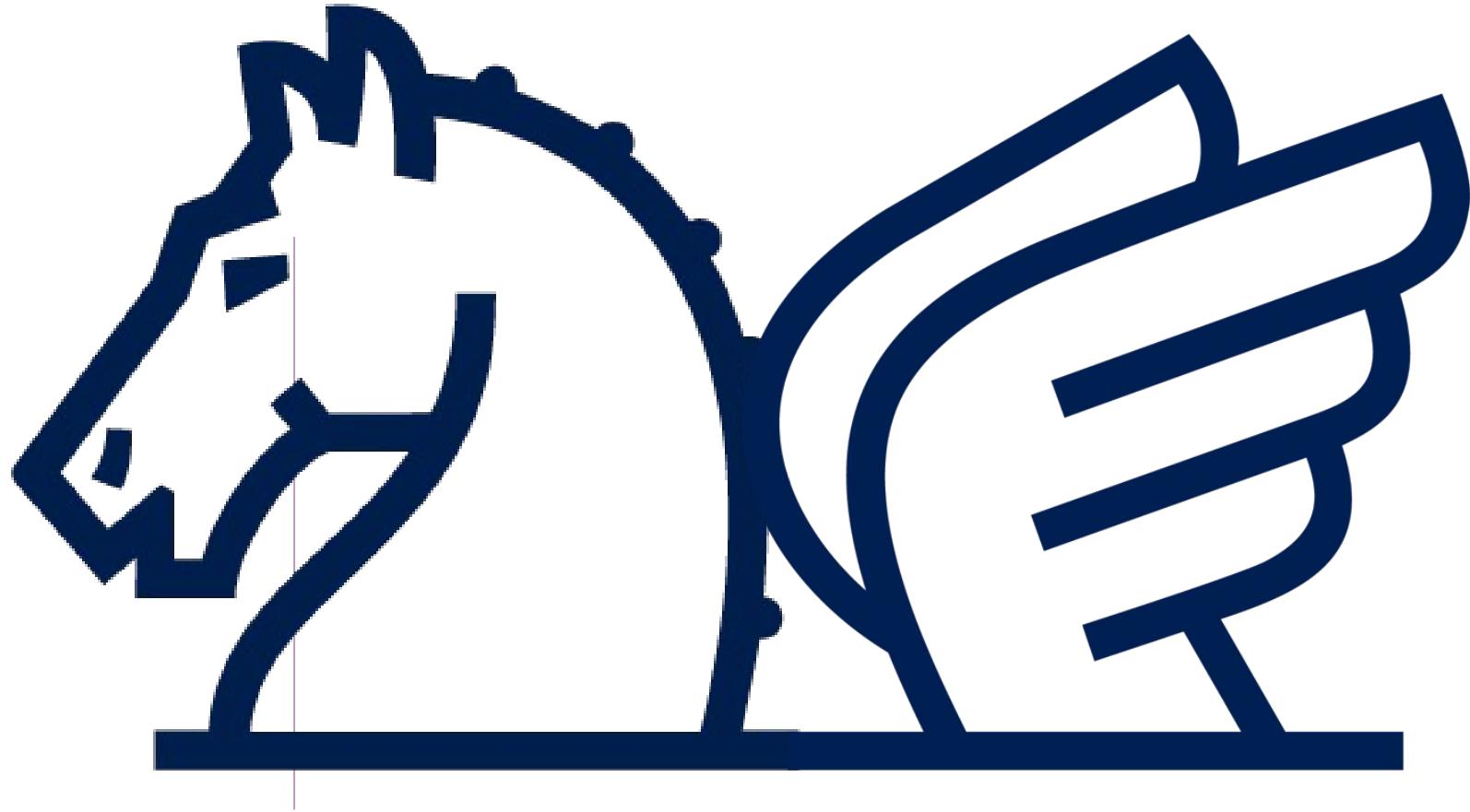
Changes in expectations from users mean changes of the *environment* in which we can survive and thrive.





## Darwin:

Not the strongest survive;  
not the most intelligent;  
not even only the most adapted  
but all those *not misadapted*



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# Gracias!