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(CNRS UMR5190 LARHRA – Université de Lyon)

La conceptualisation de l'information factuelle

Université de Neuchâtel
Septembre-décembre 2020
(version 2.0)

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[https://en.wikipedia.org/wiki/Galileo_Galilei#Reference-Sharratt-1994]

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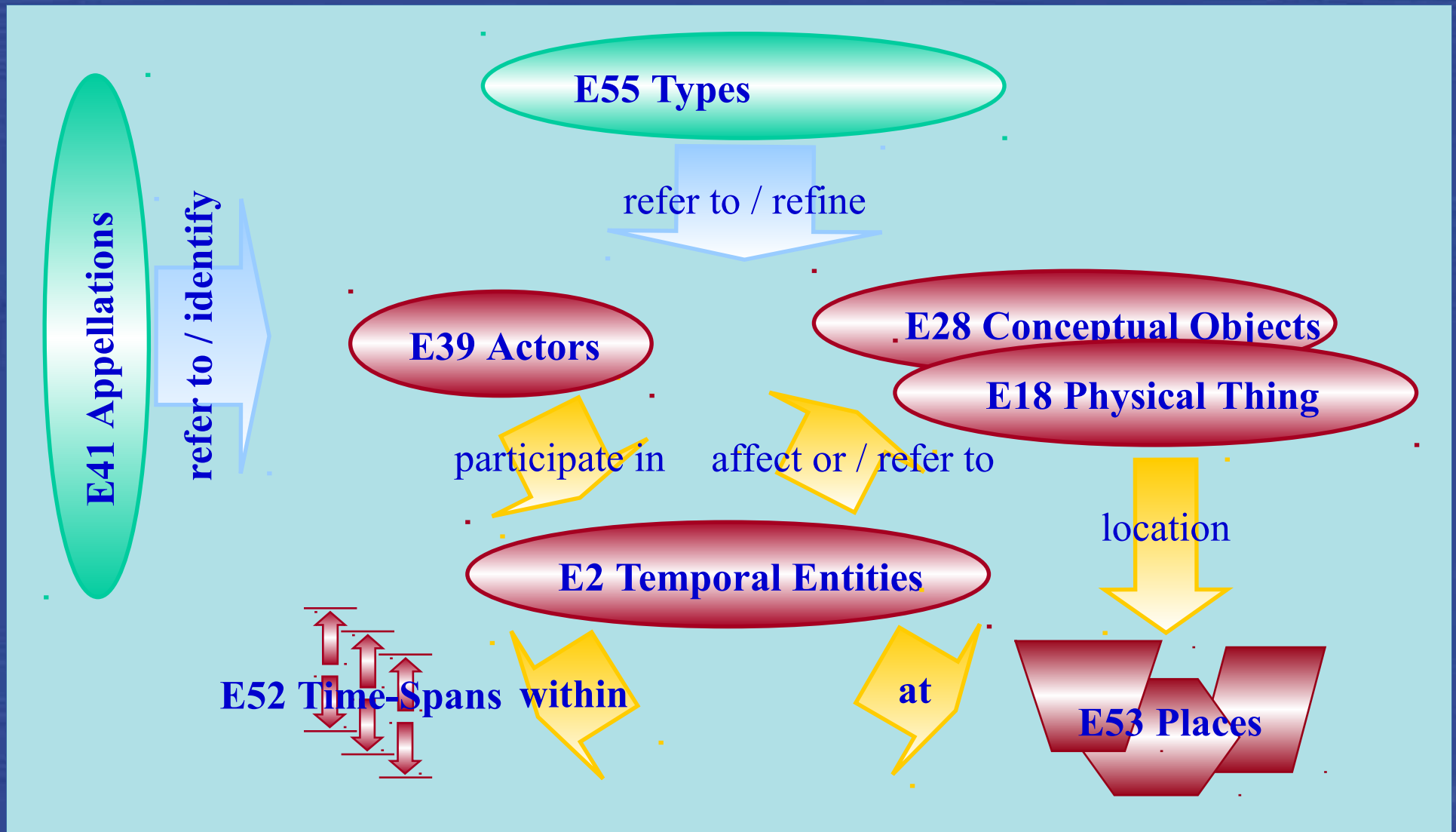
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The CIDOC CRM (ISO21127:2006)

A semantic framework that provides interoperability between different sources of cultural heritage information



Stephen Stead (2008)

Persistent items

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Person

Group



Geographical place

Conceptual object

Conceptual object

« Letter by cardinal Bellarmine to Paolo Antonio Foscarini, 12 April 1615:

Person

Person

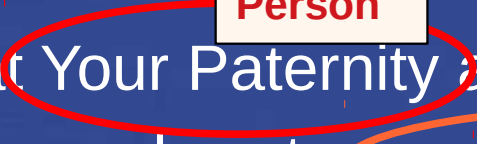


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Person

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Conceptual object



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Temporal entities

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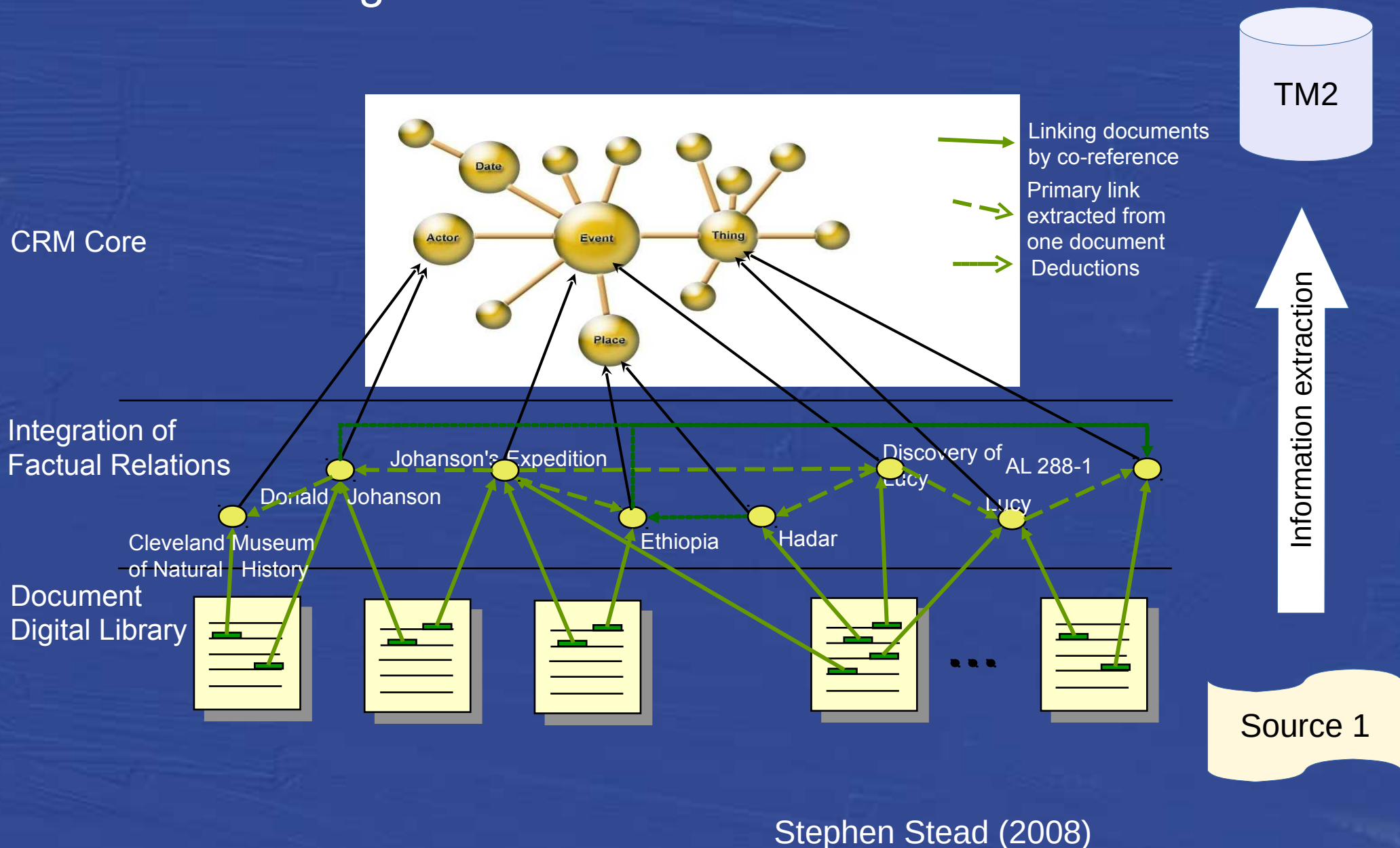
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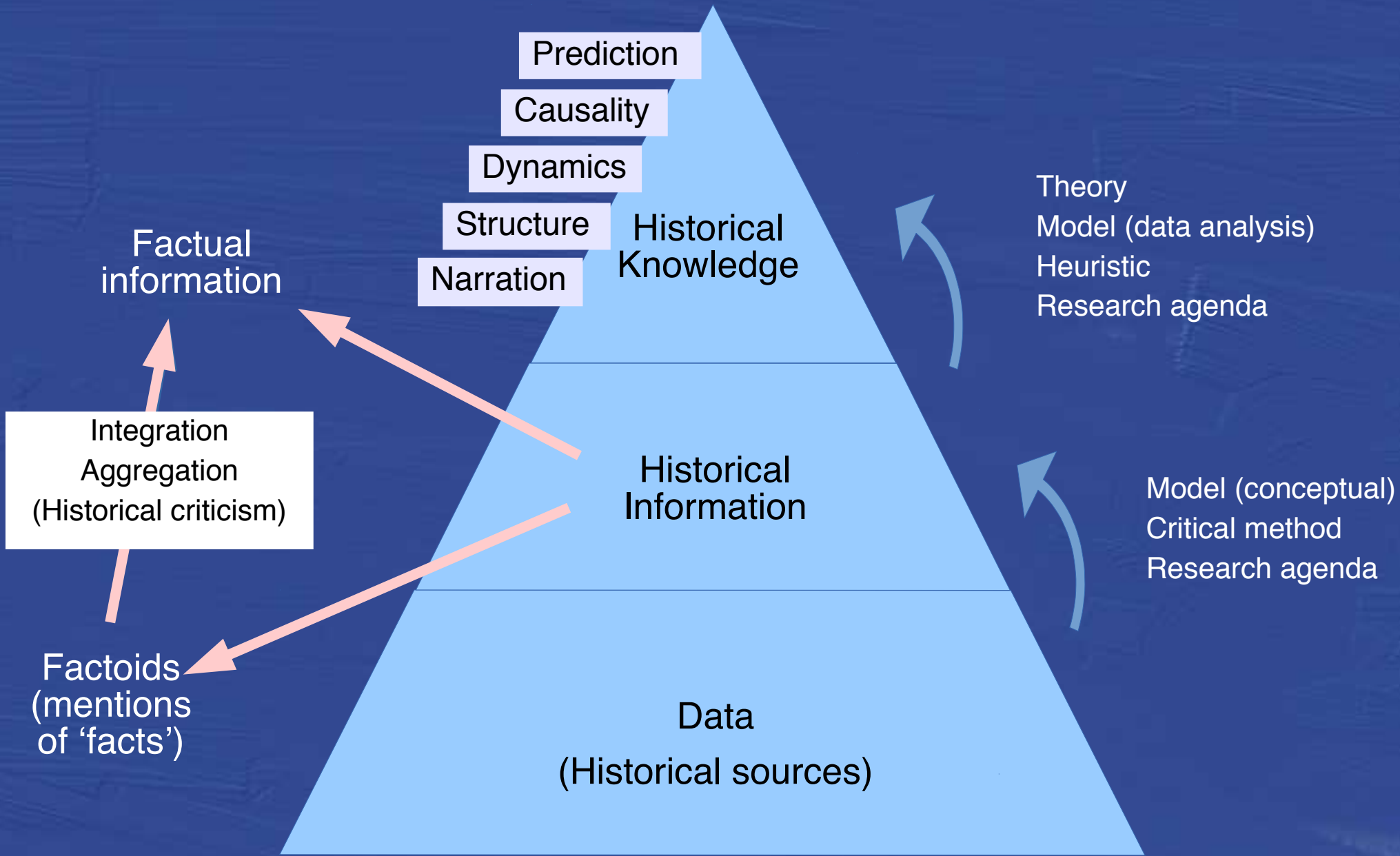
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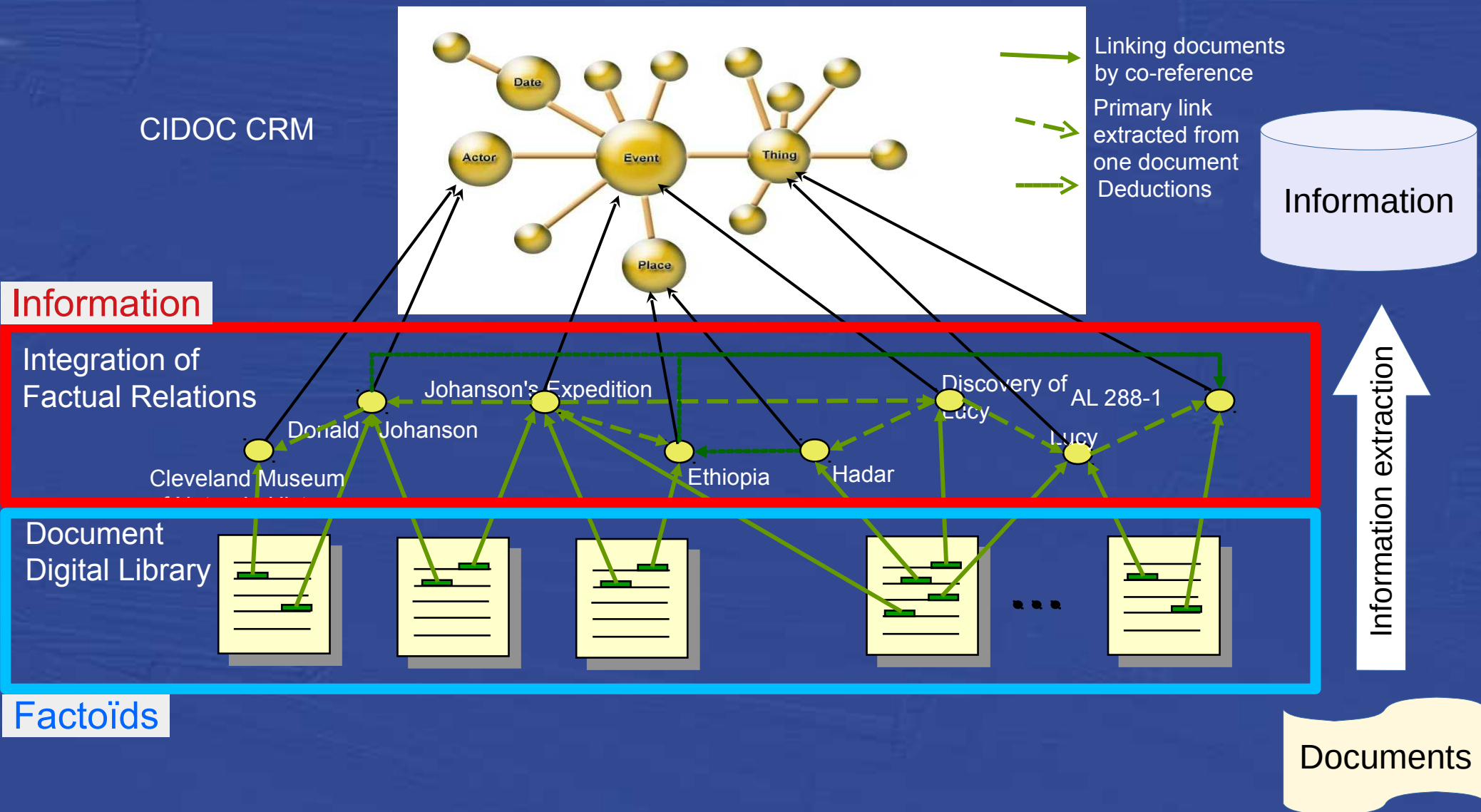
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Integration of information extracted from documents using the CIDOC CRM and its extensions



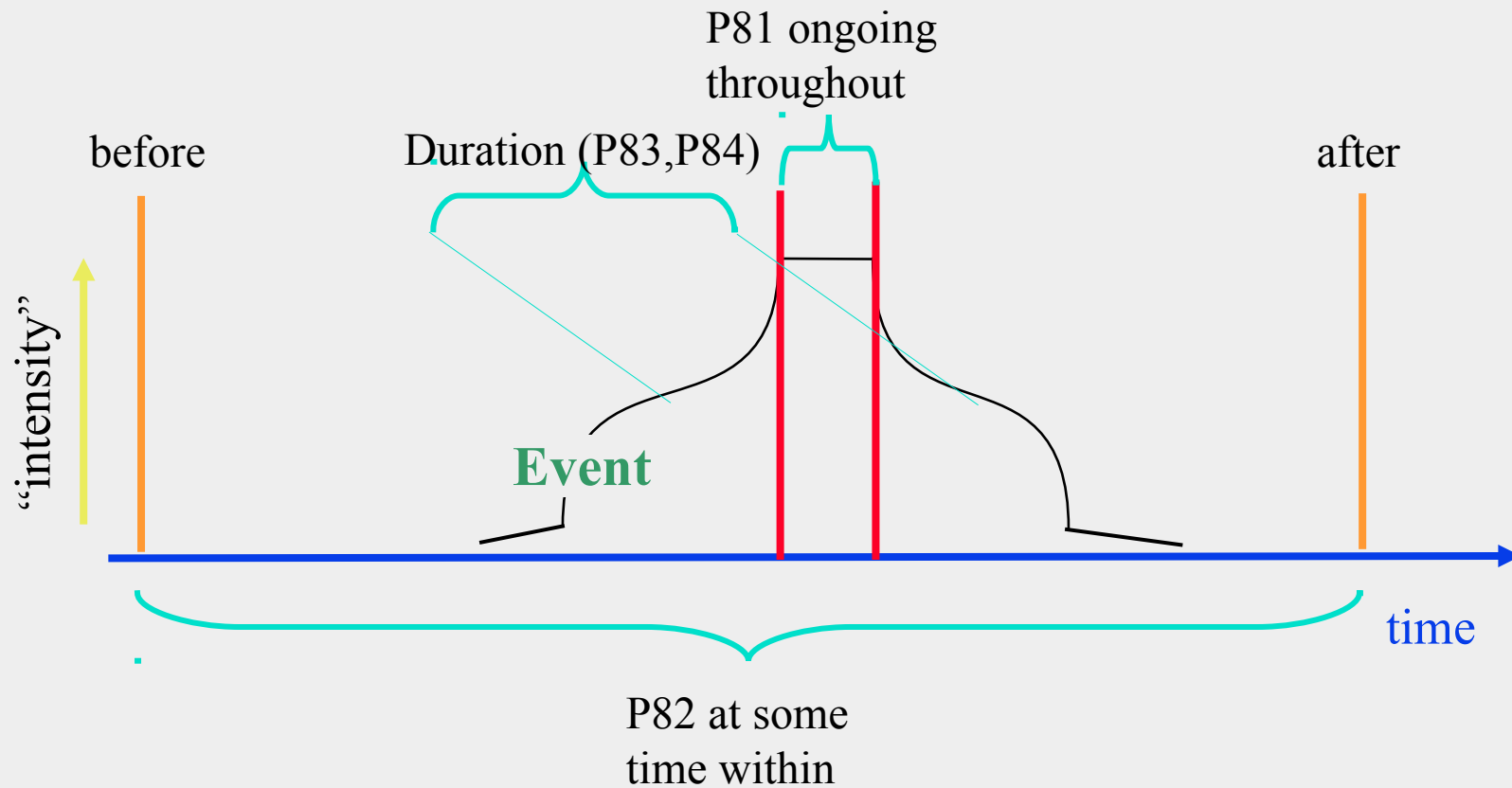


Integration of information extracted from documents using the CIDOC CRM



The CIDOC CRM

Time Uncertainty, Certainty and Duration

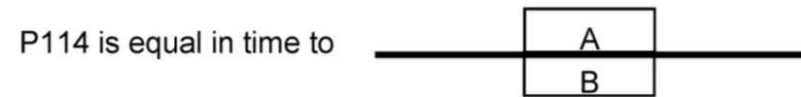


Stephen Stead (2008)

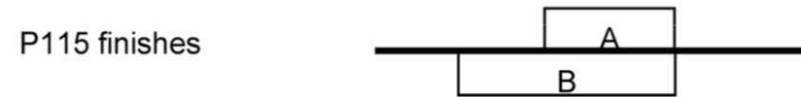
The CIDOC CRM

P114-120 'Allen' properties

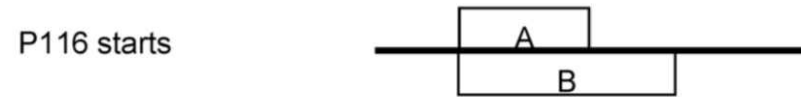
(James F. Allen)



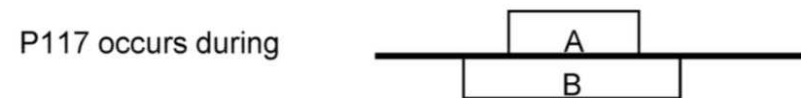
$$A_s = B_s \ \& \ A_e = B_e \Leftrightarrow (A_{ss} = B_{ss} \ \& \ A_{se} = B_{se}) \ \& \ (A_{es} = B_{es} \ \& \ A_{ee} = B_{ee})$$



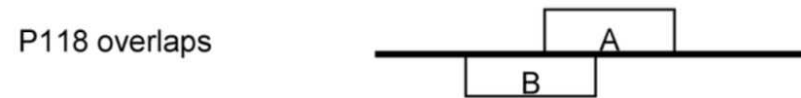
$$A_s > B_s \ \& \ A_e = B_e \Leftrightarrow (B_{ss} < A_{ss} \ \& \ B_{se} < A_{se}) \ \& \ (B_{es} = A_{es} \ \& \ B_{ee} = A_{ee})$$



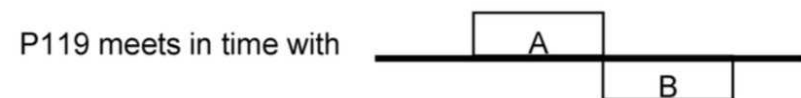
$$A_e < B_e \ \& \ A_s = B_s \Leftrightarrow (A_{ss} = B_{ss} \ \& \ A_{se} = B_{se}) \ \& \ (A_{ee} < B_{ee} \ \& \ A_{es} < B_{es})$$



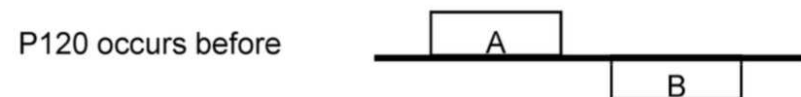
$$B_s < A_s \ \& \ A_e < B_e \Leftrightarrow (B_{ss} < A_{ss} \ \& \ B_{se} < A_{se}) \ \& \ (A_{es} < B_{es} \ \& \ A_{ee} < B_{ee})$$



$$B_s < A_s \ \& \ A_s < B_e \ \& \ B_e < A_e \Leftrightarrow (B_{ss} < A_{ss} \ \& \ B_{se} < A_{se}) \ \& \ (A_{ss} < B_{es} \ \& \ A_{se} < B_{ee}) \ \& \ (B_{es} < A_{es} \ \& \ B_{ee} < A_{ee})$$



$$A_e = B_s \Leftrightarrow A_{es} = B_{ss} \ \& \ A_{ee} = B_{se}$$



$$A_e < B_s \Leftrightarrow A_{es} < B_{ss} \ \& \ A_{ee} < B_{se}$$

J. Holmen et Ch.-E. Ore (2010)

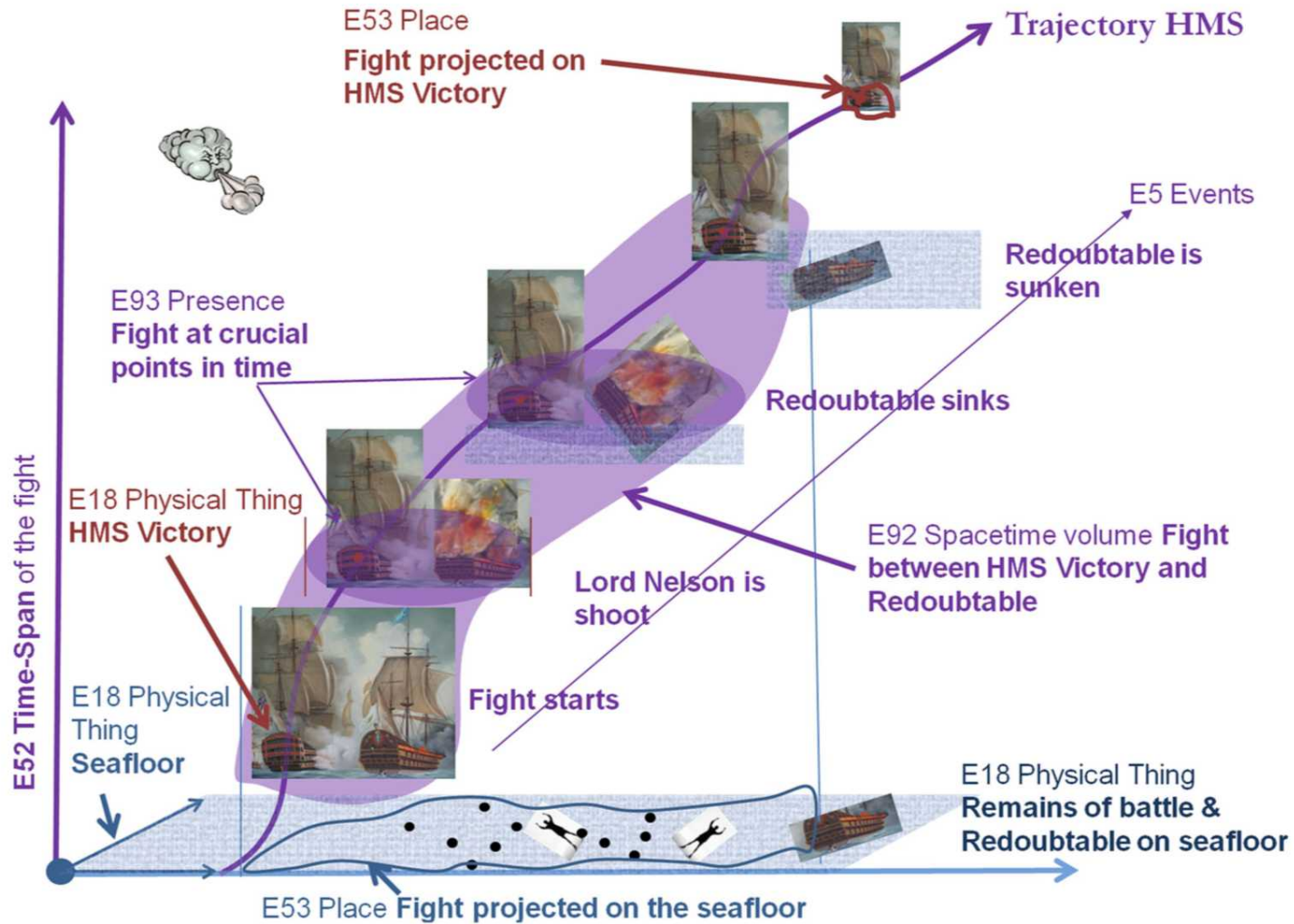
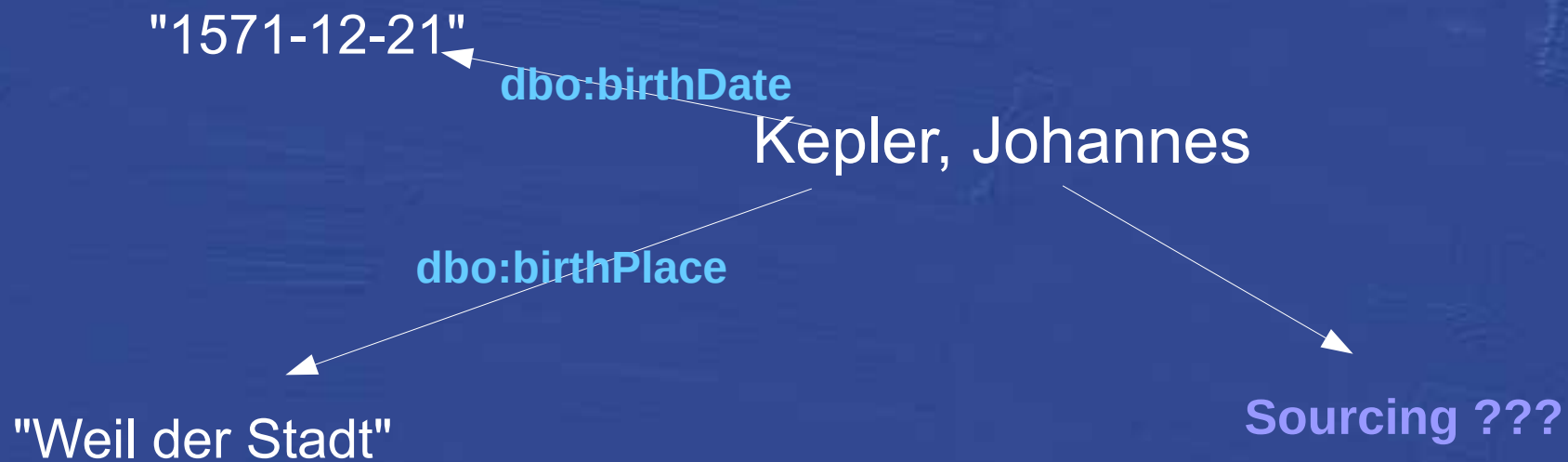


Fig. 2 The fight of the HMS Victory and the Redoubtable in the Battle of Trafalgar illustrating Spacetime volume (E92) and Presence (E93) and their projection to different Places (E53)

DOI 10.1007/s00799-016-0192-4

CRMgeo: A spatiotemporal extension of CIDOC-CRM Gerald Hiebel1 ·
Martin Doerr2 · Øyvind Eide3

Adopt a resource-centered model...



... or prefer a more robust event-centered model !

