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Automatic Text Localisation in Scanned Comic Books

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Presentation

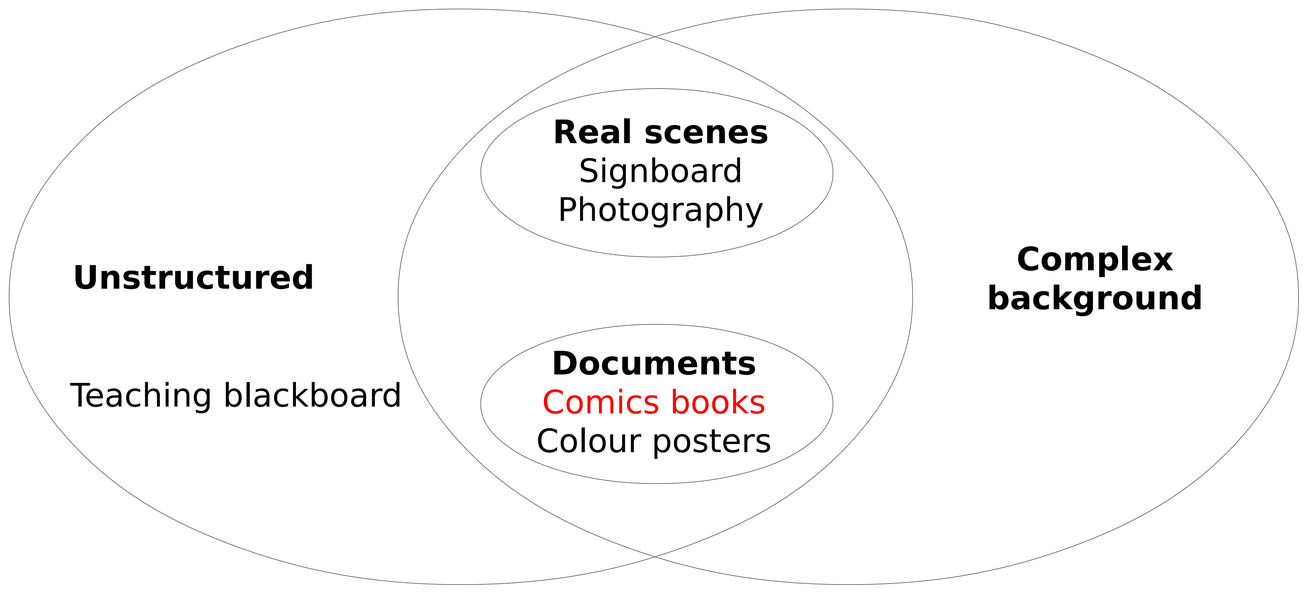
Keywords

Comic content understanding

Text / graphic separation

Text lines localisation

Benchmark dataset

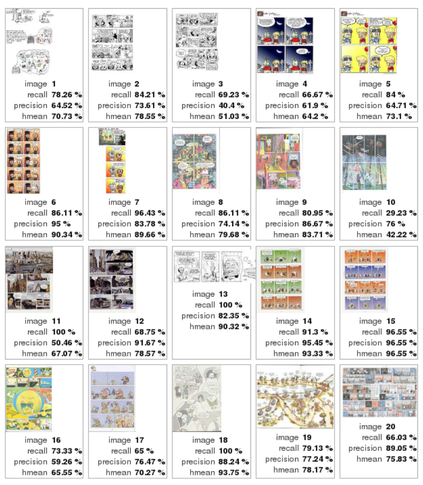


Experiments

Dataset

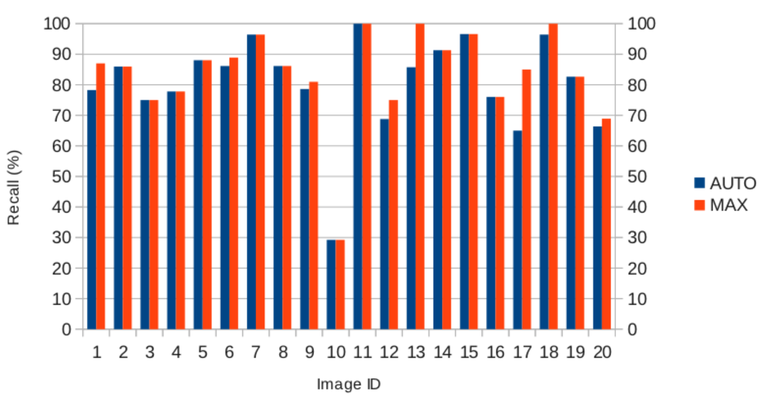
eBDtheque [1]

- 1700 text lines
- 100 to 300 DPI
- Text line level



Results

Evaluation



Segment.	Text/graphic sepa.	R (%)	P (%)
(Neumann and Matas, 2012)[2]		12.56	30.19
Colour	Proposed	15.69	6.92
Proposed	(Tombre et al., 2002)[3]	74.18	61.25
Otsu	Proposed	75.14	64.14
Proposed	Proposed	**75.82**	**76.15**

Contributions

Minimum Connected Component Thresholding (MCCT)

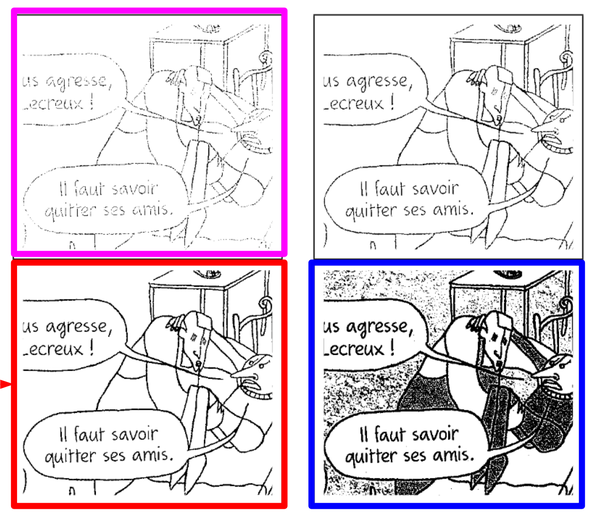
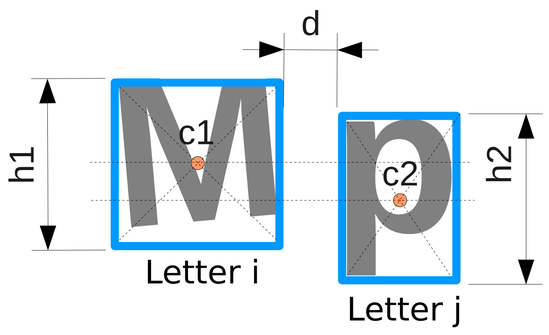


Image credit [4]

Text / graphic separation

Text line localisation



IF

$$d < Max(h1, h2)$$

$$i.y_{min} < c2.y \quad \text{AND} \quad i.y_{max} > c2.y$$

THEN
Letter j follows letter i

Applications

Localization
Image compression
OCR training
Retargeting & reflowing

Localization + OCR
Automatic translation
Speech synthesis

Conclusion & Perspectives

Comics are specific drawing
Consider other type of text
What about speech balloon?

References

[1] eBDtheque database, website: http://ebdtheque.univ-lr.fr
[2] Neumann, L. and Matas, J. Real-time scene text localization and recognition. *Computer Vision and Pattern Recognition (CVPR)*, pages 1485–1490. 2012
[3] Tombre, K., Tabbone, S., Plissier, L., Lamiroy, B., andDosch, P. Text/graphics separation revisited. *In in: Workshop on Document Analysis Systems (DAS)*, pages 200–211. Springer-Verlag. 2002
[4] Roudier, N. Les terres creusees, Acte sur BD. Actes Sud. 2011