‹HYPER **TED**›

SEARCHING AND BROWSING TED TALKS

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HyperTED: empowering TED Talks

2014
‹HYPER **TED**›

Hot spots
Chapters
Entities
Related TED's Chapters

2006
TED.com

Meet the GrthSense interaction

1984
TED Ideas worth spreading

Understand G Environment: A system approach

OCW The Mysterious Field of Engineering Systems

Courses Systems Practice Managing sustainability
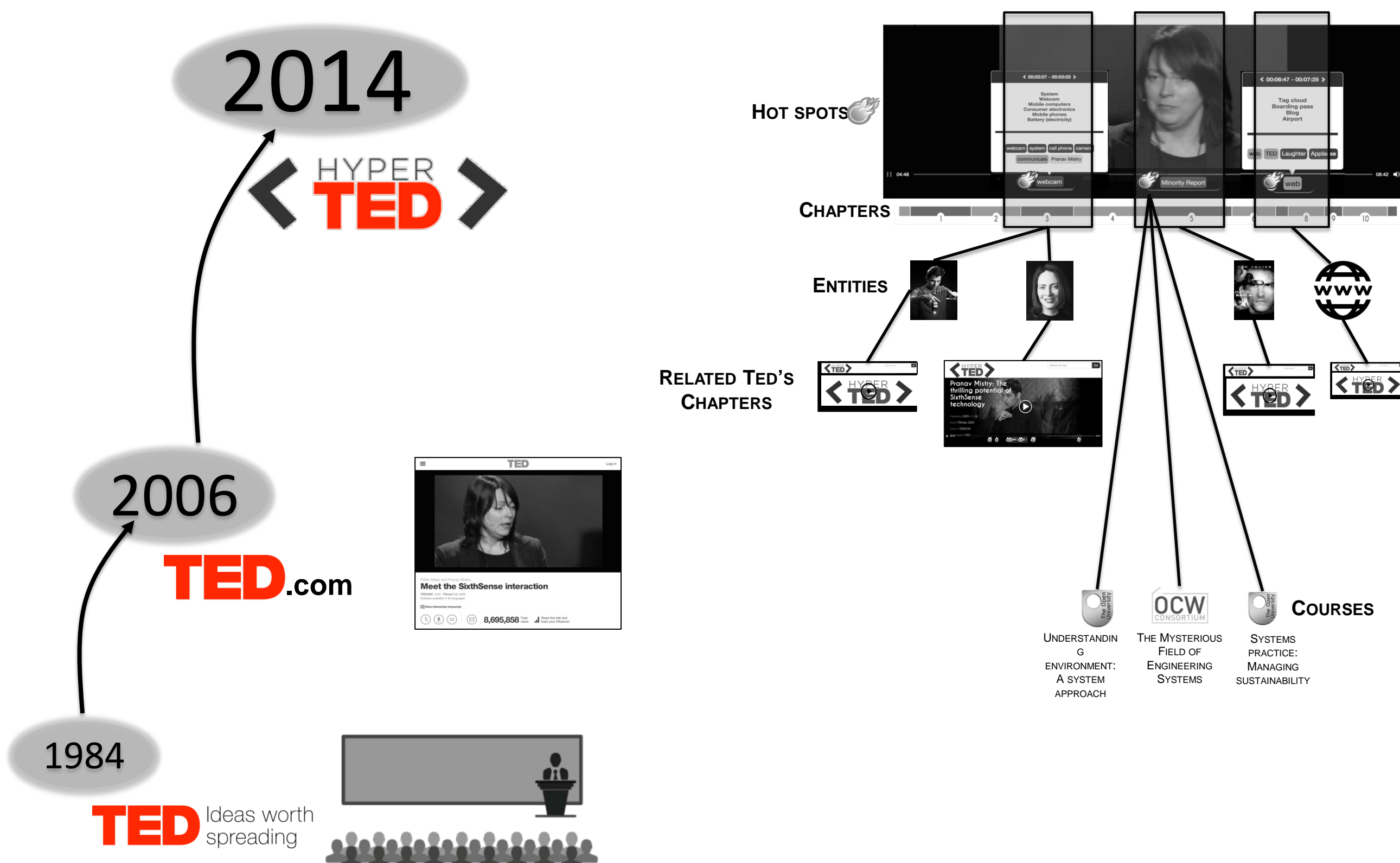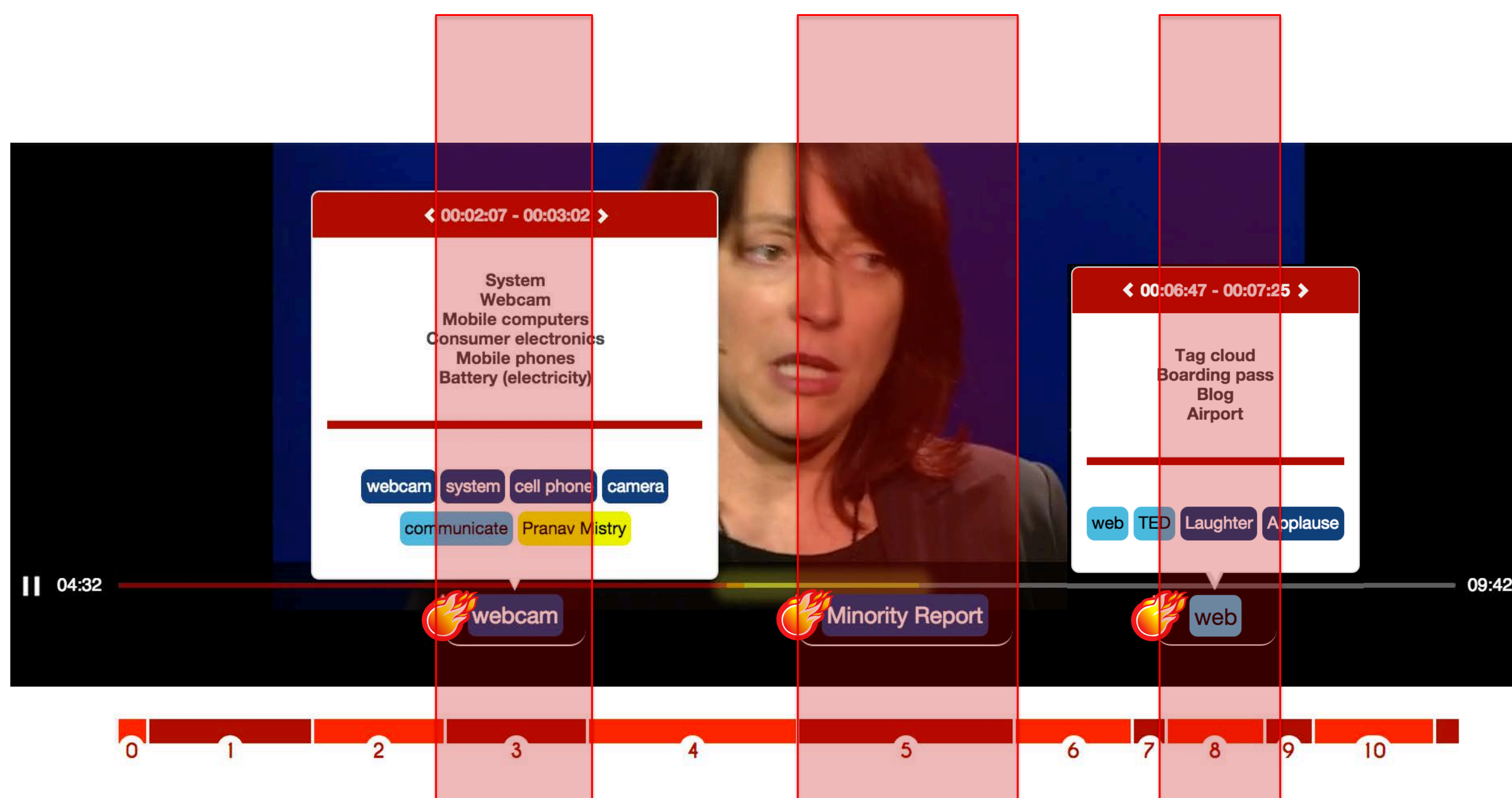
Annotating Media Fragments

TED Talks **paragraphs**: a **human-made subdivision** of subtitles

TED **CHAPTERS**

Transcript

GENERATE HOTSPOTS

(1) Named Entities   (2) Topics

"This is Nikita, a security guard from one of the bars in St. Petersburg."
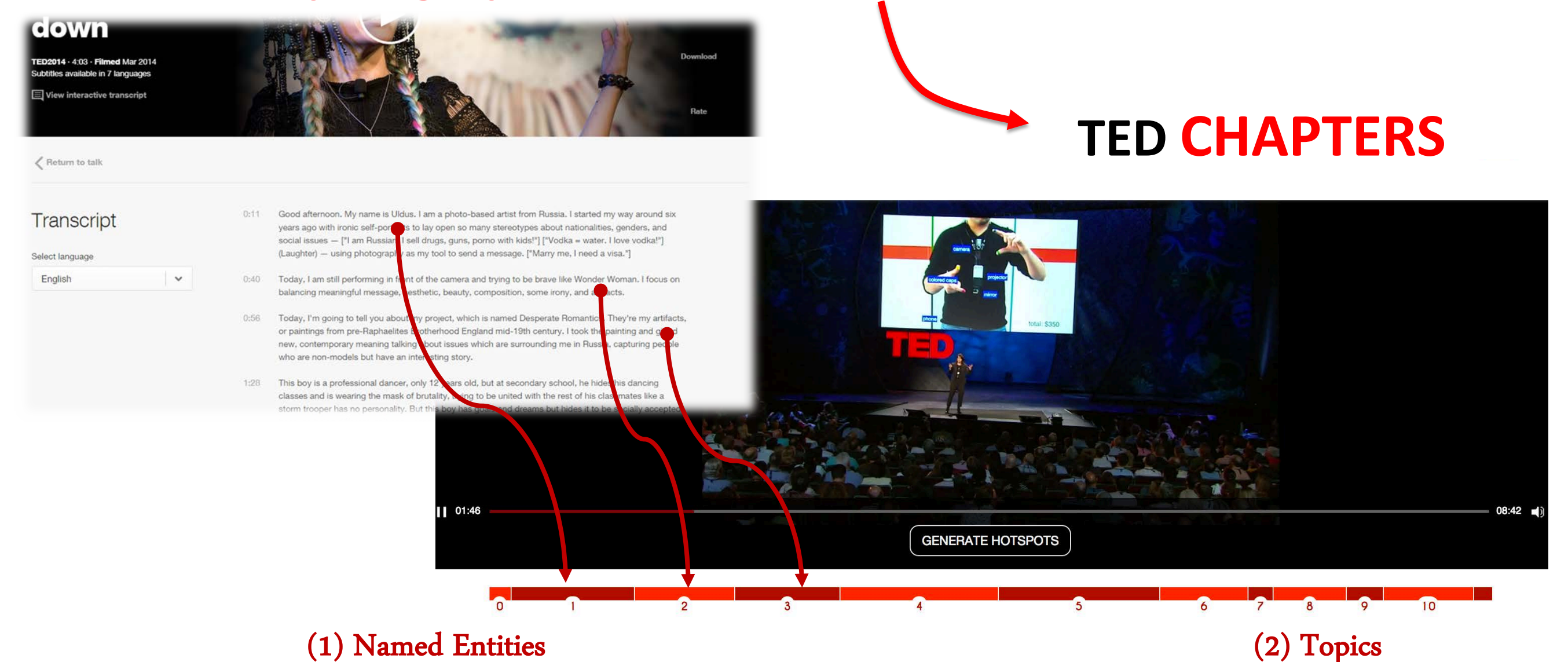
N·E·R·D

"This is Nikita, a security guard from one of the bars in St. Petersburg."

"I'm wearing a camera, just a simple webcam, a portable, battery-powered projection system with a little mirror. These components communicate…"

Text**Razor.**

Battery (electricity)   Mobile computers   Consumer Ele..

🔥 Hot Spots: highlighting important fragments

‹ 00:02:07 - 00:03:02 ›

System
Webcam
Mobile computers
Consumer electronics
Mobile phones
Battery (electricity)

webcam system cell phone camera
communicate Pranav Mistry

‹ 00:06:47 - 00:07:25 ›

Tag cloud
Boarding pass
Blog
Airport

web TED Laughter Applause

04:32   09:42

🔥 webcam   🔥 Minority Report   🔥 web

0 1 2 3 4 5 6 7 8 9 10

1. Clustering of consecutive **chapters** which are about similar **topics** and **entities**

$$d\left(Ch_1, Ch_2\right) = w_{topic} \cdot \left(\frac{|T_1 \bigcap T_2|}{max\left\{|T_1|, |T_2|\right\}} \right) + w_{entity} \cdot \left(\frac{|E_1 \bigcap E_2|}{max\left\{|E_1|, |E_2|\right\}} \right) \quad (1)$$

2. Ordering of those fragments based on **annotation** relevance (TF-IDF)

$$Relevance\left(Fragment\right) = \frac{w_{topic} \cdot \sum_{t \in T} Rel_t + w_{entity} \cdot \sum_{e \in E} Rel_e}{Duration(Ch)} \quad (2)$$

3. Filtering the fragments whose relative relevance falls under the **first quarter**

Hyperlinking: TED Chapters

Features indexed:
- Topics
- Entities
  - *time code references (startNPT ; endNPT)*
  - *extractor confidence*
- Full text transcript

Granularity level:
- Chapter

‹HYPER **TED**›

Search by topic   Go!

01:52   05:30

GENERATE HOTSPOTS

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

watch also

Tim Berners-Lee: The year open data went …
▸ Chapter 11 (00:03:28 - 00:04:02)
▸ Chapter 3 (00:00:50 - 00:01:17)

Geraldine Hamilton: Body parts on a chip
▸ Chapter 15 (00:11:36 - 00:12:11)

Avi Rubin: All your devices can be hacked
▸ Chapter 19 (00:11:51 - 00:12:57)

Tan Le: A headset that reads your brainwa…
▸ Chapter 14 (00:08:56 - 00:09:38)

Hyperlinking: Online Courses

Datasets:
- Open Courseware   OCW
- Open University

Anchors in search:
- Entities   *Too specific*
- Topics   *Courses' thematic*

Attributes in search:
- Title
- Description
- Subject, thematic, …

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Search by topic   Go!

01:06   08:42

🔥 webc…   🔥 Minority R…   🔥 web

learn also

OCW The Mysterious Field of Engineering Systems

Understanding systems: a systems approach

Systems practice: Managing sustainability
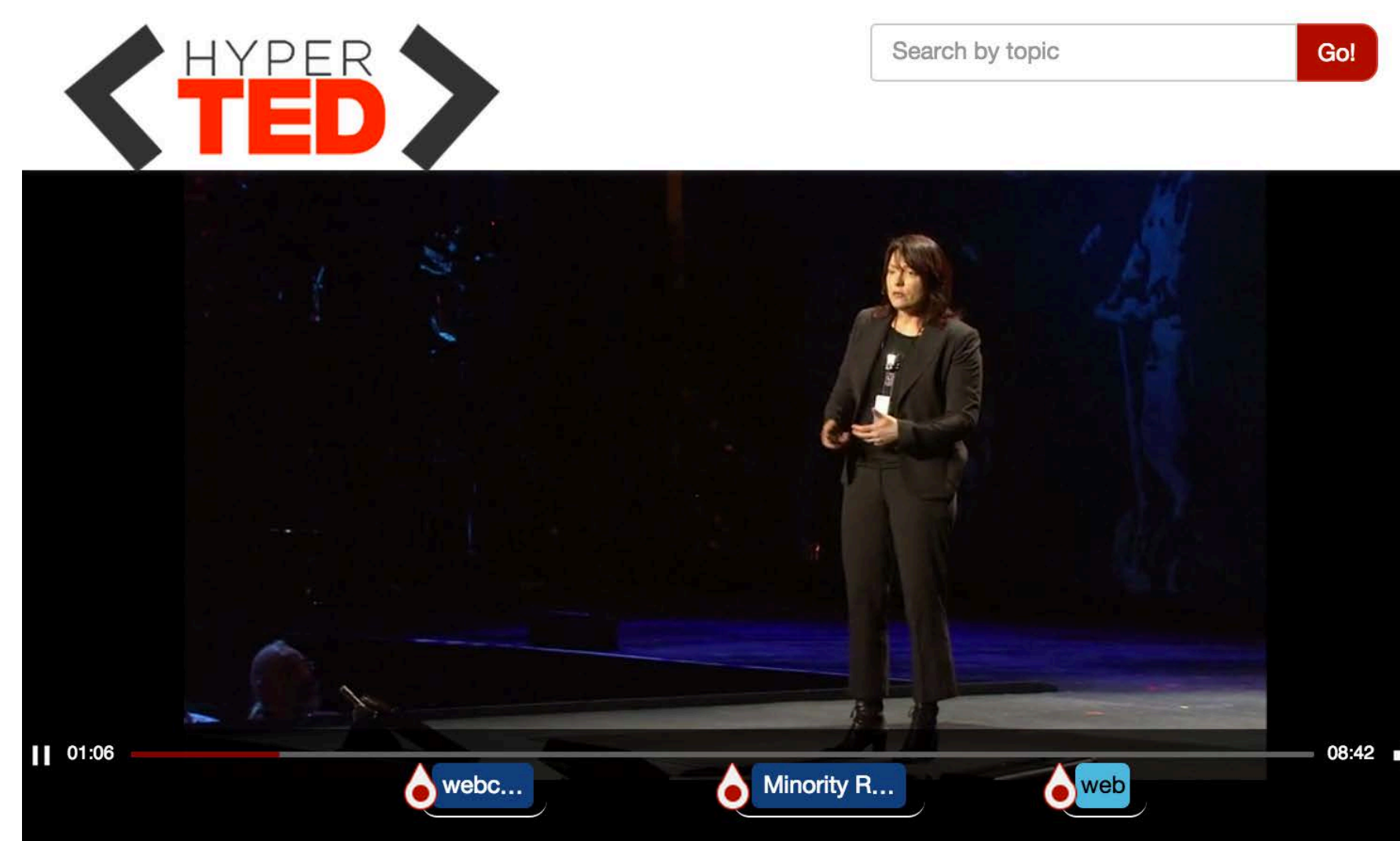
References

[1] Y. Li, G. Rizzo, J. L. R. García, R. Troncy, M. Wald, and G. Wills. **Enriching Media Fragments with Named Entities for Video Classification**. In 1st International Workshop on Linked Media (LiME'13), pages 469–476, Rio de Janeiro, Brazil, 2013.

[2] J. L. R. García, M. Hildebrand, L. Perez Romero and R. Troncy. **Augmenting TV Newscasts via Entity Expansion.** In 11th Extended Semantic Web Conference (ESWC'14), Demonstration Track, Crete, Greece, 2014.

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