"Doing the right thing" - Ars Electronica - Sep.6, 2010

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in fondo al mar / under the sea

- ‣ Information-visualisation project
- ‣ "Navi dei veleni" scandal - Toxic ships sunk in the Mediterranean
- ‣ Since 1979 over 70 ships suspected of carrying toxic and radioactive waste
- ‣ First reports in mid-90s
- ‣ Nobody has so far been brought to justice

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"What happens to the sea, after we poison it?"

"Who cares about the sea?
Think about the money.
With the money we can find the sea
wherever we want".

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Eco-mafia

- Eco-mafia: Illegal economic activities involving environmental crimes in sectors such as waste management, agriculture and construction
- Annual turn-around: €20 billions (more than Fiat and Benetton put together)
- A network of mafia clans, Italian / foreign entrepreneurs and brokers
- Hidden collaboration of public officers and secret services

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Illegal waste traffic

- Waste from pharmaceutical and chemical industries, nuclear power plants, cities street sweeping.
- Direct consequences on public health in affected areas:
  rates of cancer 12% higher than European average
- Indirect consequences:
  fruit, vegetables, milk, meat, water and fish stocks

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The invisible Everest

- "Gomorrah": 15.600 meters-high mountain of toxic waste
- Invisibility of risks
- Sea as a carpet under which to sweep the dust
- Challenge for traditional journalism

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Bringing the poisons afloat

- Make the invisible as visible
- Intuitive toolkit to spark attention and investigations
- "Data visualization as a representation whose scale is comparable to the scales of human perception and cognition", *L.Manovich*

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Harvesting data

- A unique repository concerning the toxic ships scandal
- Archival research at Lloyd's Register of Shipping - London
- Integration with *Legambiente* and other NGOs dossiers

- Broad set of data: *i.e.* coordinates, declared cargoes and routes, age of ship, ownership, incident circumstances report
- International Maritime Organization codes

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Data integration & spreading

‣ Data archive made public and released on Google Docs
‣ Design to foster users' participation
‣ Social media spread
‣ From the publication date, dozens of submissions from visitors

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- Launched in November 2009
- Information-visualisation toolkit:
  - satellite maps of incidents
  - time-line widget
  - aggregated statistics
  - files

- Emerging patterns: Sinking locations, Routes, Cargoes

Under the spotlight

- ‣ Press coverage: Scientific American, Sky TG24, Wired
- ‣ Articles from blogs and newspapers in several Mediterranean countries

- ‣ Web traffic from Ministry of Defense, Ministry of the Interior, NAS Carabinieri

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One step further

- ‣ Mobile Augmented Reality - August 2010 (iPhone and Android)
- ‣ Browsing & reading the territory

- ‣ A step towards a location-based distributed *sousveillance*
- ‣ Mobile sensing toolkit

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Envisioning scenarios

- ‣ Global toxic ships scandal (i.e. Somalia, Port Alang, Lebanon, Mozambico, etc)
- ‣ Grassroots monitoring of environmental crimes
- ‣ Widening the scope to illegal waste traffic and constructions

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Strategy

- ‣ Limits of large-scale policies, public authorities trust
- ‣ Citizens need to actively take care of their environment

- ‣ From browsing the territory to investigating it
- ‣ Collaborations with NGOs + Interactions with public authorities

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Doing the right thing

- Sensing & Reporting
  - Collecting and submitting information
- Verifying
  - A team of experts verifies information
- Pressing
  - Create civic pressure on institutions and public authorities

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