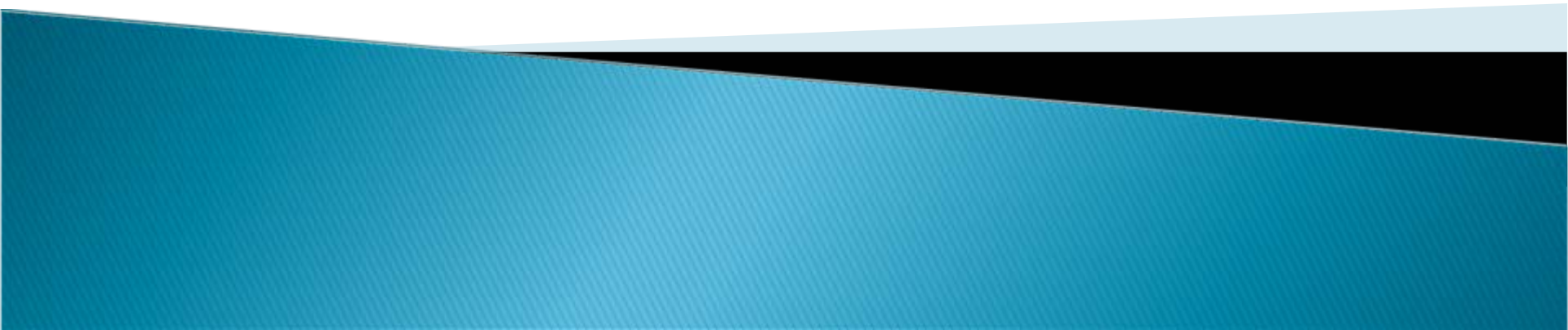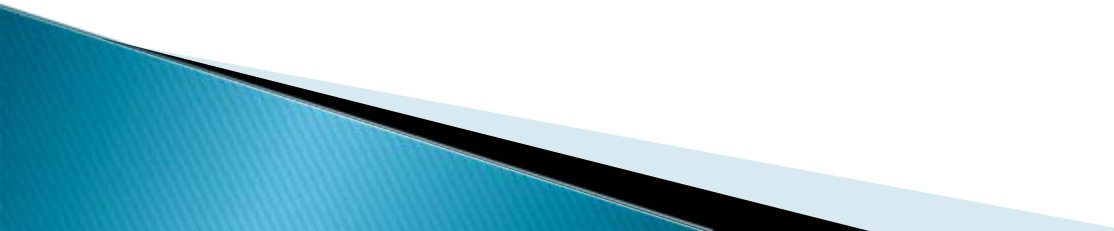# SiteGraph

Web content and user network visualization.
Also a graphical user interface.
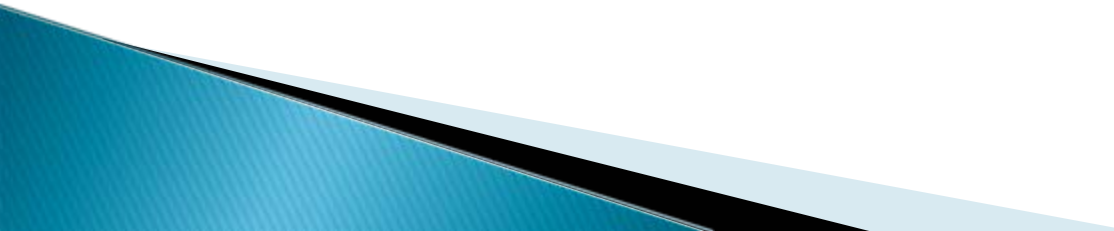
Background

- Founded by PASCAL Pump-Priming and Brokerage of Expertise joint call.
- We promised to create an interactive web page add-on that will:
  - Have all the functionality of a site map.
  - Enable a user to identify hot topics of interest.
  - … to identify sites users sub communities.
  - … to identify user paths across site.
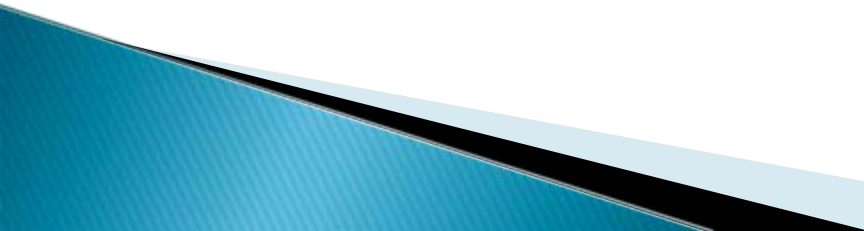- We promised to deploy our module on Videolectures site.

Our Idea

- Create a visualization of an extended web site.
- On top of this, we wanted to add information about user flow.
- Make everything interactive.

Our Solution

- Several approaches were tried.
- The most clear visualization could be obtained by drawing a graph.
- Nodes in the graph are unique pages. Weight of a node is the number it was visited.
- Edges are obtained from user flow. Weighted by how many times a path was taken.

Technical Implementation

- Consumer web site exposes information about pages and user flow.
- We created a web service that:
  - Parses the data.
  - Creates a graph with pages as nodes and user paths as edges.
  - Calculates a graph drawing.
- A flash plugin that consumes the data web service creates.
- We deployed our solution on the videolectures (production) site.
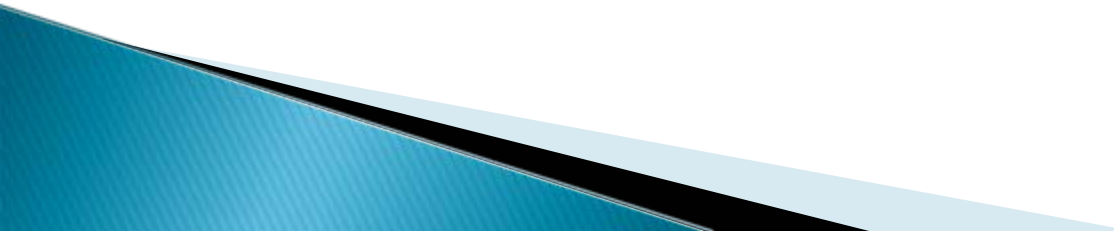
The Devil is in the Details

- Videolectures site currently consists of around 3000 presentations, which is very hard to visualize.
- Our solution:
  - We cut the graph to show only those edges that have weight (user flow) of more than a given threshold.
  - We created a visualization transformation.

Demo of Visualization Transformation

Grid.swf

Other Highlights

- Special node for the page we are currently on.
- Tooltip text shows title and description.

Demo of Module

- We deployed our module on the production (test) version of videolectures site.
- http://test.videolectures.net

Conclusion

- We created a fully functional module.
- We would be happy to deploy our module on other sites.
- Please contact us for more information:
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  - Marko Grobelnik: marko.grobelnik@ijs.si