

# Web工学 (Web Engineering)

<http://tinyurl.com/webeng2013>

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# 目標

- Webに関する研究分野の基礎、および、最近の動向について学ぶ

# Goal

- Learn basics of Web related research and its recent trends

# 進め方

- 論文の輪講形式
- 毎回3,4本の論文を担当者が発表する  
(15-20分発表、5-10分質疑)
- 論文は、以下に上げる基礎文献か、メジャーな国際会議から自由に選択

# Format

- Seminar style
- Three or four students present research papers at each session  
(15-20 min. presentation, 5-10 min. Q&A)
- Choose papers from the following basic papers, or from measure international conferences

# 単位

- 出席は取らない
- 条件：
  - 発表を1回行う
  - OR
  - レポートを2回提出

# Credits

- No roll call
- Requirement:
  - 1 presentation,
  - OR
  - 2 reports

# Organization of sessions

- First half: Basic papers from 1998-2007
  - Google, PageRank, HITS,...
- Second half: Recent research papers
  - WWW Conference, WSDM
  - SIGMOD, VLDB, ICDE
  - SIGIR
  - KDD, ICDM
  - AAI, ICWSM
  - ACL, EMNLP
  - Etc.

# スケジュール

- 10/ 7(月) ガイダンス
- 10/15(火) 休講
  - 発表論文候補提出
- 10/21(月) 休講
- 10/28(月) Search engine, PageRank
- 11/5(火) Hub and Authority
- 11/11(月) Crawler
- 11/18(月) Structure and Evolution
- 11/25(月) Social Network
- 12/2(月) Recent papers 1
- 12/9(月) Recent papers 2
- 12/16(月) Recent papers 3
- 1/15(水) Recent papers 4
- 1/20(月) Recent papers 5

# Schedule

- 10/ 7 (Mon) Guidance
- 10/15(Tue) Cancel,
  - Submit list of papers to read
- 10/21(Mon) Cancel
- 10/28(Mon)
- 11/5(Tue)
- 11/11(Mon)
- 11/18(Mon)
- 11/25(Mon)
- 12/2(Mon)
- 12/9(Mon)
- 12/16(Mon)
- 1/15(Wed)
- 1/20(Mon)

# Papers for Session 1 (10/28)

- Search engine and PageRank
  - Sergey Brin and Lawrence Page. The Anatomy of a Large-Scale Hypertextual Web Search Engine. WWW7, 1998. (平川)
  - Page, Lawrence; Brin, Sergey; Motwani, Rajeev; Winograd, Terry. The PageRank Citation Ranking: Bringing Order to the Web. 1999. (槇)

# Papers for Session 2 (11/5)

- Hub and Authority Analysis
  - J. Kleinberg. Authoritative Sources in a Hyperlinked Environment, Proc. 9th ACM-SIAM Symposium on Discrete Algorithms, 1998. Extended version in Journal of the ACM 46(1999). Also appears as IBM Research Report RJ 10076, May 1997. (井上)
  - Krishna Bharat and Monika R. Henzinger. Improved algorithms for topic distillation in a hyperlinked environment, SIGIR '98, 1998. (河村)
  - Ravi Kumar, Prabhakar Raghavan, Sridhar Rajagopalan, Andrew Tomkins. Trawling the Web for Emerging Cyber-Communities. WWW8, 1999



# Papers for Session 3 (11/11)

- Crawler
  - A. Heydon and M. Najork. Mercator: A scalable, extensible web crawler. WWW8, 1999. (浅見)
  - J. Cho and H. Garcia-Molina. The evolution of the web and implications for an incremental crawler. VLDB2000, 2000. (碓井)
  - Junghoo Cho, Hector Garcia-Molina. Parallel crawlers. WWW2002, 2002. (中島)

# Papers for Session 4 (11/18)

- Structure and evolution of the Web
  - Andrei Broder, Ravi Kumar, Farzin Maghoul, Prabhakar Raghavan, Sridhar Rajagopalan, Raymie Stata, Andrew Tomkins, Janet Wiener. Graph structure in the web. WWW9, 2000. (高木)
  - Dennis Fetterly, Mark Manasse, Marc Najork, and Janet Wiener. A Large-Scale Study of the Evolution of Web Pages. WWW2003, 2003. (栗原)
  - Alexandros Ntoulas, Junghoo Cho, Christopher Olston. What's new on the web?: the evolution of the web from a search engine perspective. WWW2004, 2004.

# Papers for Session 5 (11/25)

- Social network

- R. Kumar, J. Novak, P. Raghavan, and A. Tomkins. On the bursty evolution of blogspace. WWW2003, 2003. (菊地)
- D. Gruhl, R. Guha, D. Liben-Nowell, A. Tomkins. Information Diffusion Through Blogspace. WWW2004, 2004.
- Y. Y. Ahn, S. Han, H. Kwak, S. Moon, H. Jeong. Analysis of Topological Characteristics of Huge Online Social Network Services. WWW2007, 2007. (鈴木)

# 割り当て

- 最初の日に発表する2,3名は今日決定
- 全員メールで以下を知らせること (10/15 ✕ 切)
  - 学籍番号、氏名
  - 発表希望日(3日)
  - 発表希望論文3本 (基礎論文、最近の論文を両方含むこと)
- 10/18に割り当てとスケジュールを発表する
- 注意:
  - 希望日が早いほど、論文選択は優先される
  - 論文を変更したい場合、速やかに申し出ること

# Assignment

- Today, we decide the first 2 or 3 students
- All students should e-mail following info. **by 15 Oct.**
  - Student No, Name
  - 3 candidate dates, and
  - 3 papers you want to present (include both basic and recent papers)
- Assignment & Schedule will be released on 18 Oct.
- Note:
  - Students who select earlier day have more chance to present a preferred paper
  - Let me know, if you change the paper to present