



RESEARCH SUPPORT @ KELLOGG NEW FACULTY ORIENTATION



October 12, 2011

Patricia Ledesma & Alain Bonacossa

Introductions

- New Faculty
- Research Support staff:
 - Alain Bonacossa, Sr. Research Associate (PhD social psych, New School)
 - Andrei Jirnyi, Sr. Research Associate (PhD econ, Northwestern)
 - Simone Cavallaro, Research lab manager (*laurea* industrial and organizational psych, Padova)
 - Tim De Chant, Sr. Research Associate (PhD environmental science, policy and management, Berkeley; based in Boston)
 - Tomasz Wisniewski, coming soon (MA finance, Lugano, MS database design and development, PJWSTK)
 - Stephanie Dixon, MORS subject pool manager (BA social psych, DePaul)
 - Our trusty web site:
 - www.kellogg.northwestern.edu/researchcomputing/
 - We work/coordinate with Academic Technologies, Weinberg, library, IRB.

Research computing web site

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Data

Grants & RAs [↗](#)

IRB [↗](#)

Labs & subject pools [↗](#)

Journal permissions [↗](#)

Manuals

Reference & journals

Servers

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Welcome to Research Computing's web page. If you have any questions, comments or suggestions about the Research Computing group, or the contents of this web site, please [contact us](#).

News:

- [September 19](#): Stata Journal Vol 11, No. 2 available.
- [September 15](#): WRDS system and datasets fully restored
- [August 22](#): X-Win32 version 12 available
- [August 11](#): Behavioral labs upgrades on Aug 30 and 31
- [August 11](#): New datasets: BoardEx, EDGAR Pro and Compustat Unrestated
- [August 4](#): WRDS UNIX server maintenance, Aug. 23, 6AM to 9AM
- [December 15](#): Kellogg Atlantis in Qualtrics
- [November 30](#): New data -- Forrester Consumer Technographics Survey.
- [September 30](#): [RA database](#) [↗](#) (faculty only) refreshed for current academic year.
- [March 13](#): Kellogg eLab subject pool for behavioral research.
- Go to the [2011 bulletin archive](#)

RA and study participation:

- Opportunities for [research assistantships](#) or [research study participation](#) for NU students (graduate or undergraduate).

Last updated: 09/19/2011

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Contact information

Who	Room	Phone	Email alias
Alain	4227	7-1854	a-bonacossa
Andrei	4222	7-4070	a-jirnyi
Tim	Off site		t-dechant
Patricia	4218	7-7658	pledema
Simone	370A	7-4625	s-cavallaro
Stephanie	386	1-3854	stephanie-dixon
Tomasz	4226	7-4334	t-wisniewksi

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NU library staff (emails@northwestern.edu)

- ❑ **Jami Xu**, [Reference Librarian & Liaison to Kellogg](#) (jamixu; also accounting, MORS, and M&S subject specialist)
- ❑ **Carol Doyle**, [Reference & Instruction Librarian](#) (c-doyle; also finance, marketing, integrated marketing communications, and MEDS subject specialist; buyer of all Kellogg-related journals; writes all reference guides and spends 1-2 days per week in Evanston)
- ❑ **John Hernandez**, acting [Social Science Data Services \(SSDS\) Librarian](#) (john-hernandez; also economics, psych, cognitive science, and latino studies subject specialist)

Schaffner Library (Wieboldt Hall, 2nd floor)

- ❑ **Carol Doyle**
- ❑ **Qiana Johnson**, [Reference & Instruction Librarian](#) (q-johnson)

Bibliographers (subject specialists):

<http://www.library.northwestern.edu/research-help/ask-librarian/subject-specialists>

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Agenda

- ❑ What we do
- ❑ Quantitative research
 - Research servers
 - Software
 - Data
 - Some useful utilities
- ❑ Experimental resources
 - Labs
 - Subject pools
 - IRB
 - Planning and setting up studies
- ❑ Manuals in room 4219
- ❑ Full text NU Library resources
- ❑ Research Assistants
- ❑ *Kellogg Insight*, *blogs*
- ❑ Faculty web pages
 - Journal permissions

Feel free to ask questions as we go along

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What do we do?

- ❑ Administer school wide research resources
- ❑ Help faculty and doctoral students in search of data, taking a look at buggy programs...
- ❑ Provide training for faculty and doctoral students
- ❑ Assist faculty in the creation of training material for MBA students that uses research data or quantitative tools
- ❑ Take on research-related projects from the Dean's Office

e.g. *Kellogg Insight*

<http://www.kellogg.northwestern.edu/researchcomputing>

or

<http://www.kellogg.northwestern.edu/rc>

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Research servers

Server	"Audience"	Specs	Software	Type of jobs
skew5 (coming this fall)	Kellogg faculty and doctoral students	Red Hat Linux, 4 x six core Intel Xeon E7540, 3 GHz, 256GB of RAM, 10TB storage	Matlab, Mathematica, Maple, SAS, Stata/MP2, Gauss, Rats, Splus, TSP, R, Limdep, StatTransfer, Fortran, C++ compilers, CPLEX, KNITRO, ...	Jobs that demand RAM, "boutique" applications
SSCC (Social Science Computing Cluster)	Kellogg and Weinberg faculty and doctoral students	Red Hat Linux, 260 AMD Opteron CPU cores, 2.8GHz, 4GB of RAM per CPU, 14TB of storage	Matlab, SAS, Stata/SE, Gauss, Splus, R, Limdep, StatTransfer, Fortran, C++ compilers, KNITRO, Lisrel, HLM, ...	Simulations/optimizations, multiple jobs, parallel computing (users limited to 20 cores), "boutique" applications
Quest	Northwestern faculty and doctoral students	Red Hat Linux, 4032 cores Intel Nehalem E5520 (2.26GHz, 6GB of RAM per core) and 3024 Intel Westmere X5650 (2.66GHz, 6GB of RAM per core) , 100 TB storage	Matlab, Mathematica, R, KNITRO, OpenMPI, Fortran, C++, libraries (ATLAS, gsl, Boost, Open MPI)	Simulations/optimizations, parallel computing, computationally intensive jobs
Sheridan Cluster	Kellogg and Weinberg <u>behavioral</u> faculty and doctoral students	Win7 64 bit / Citrix; up to 15 simultaneous users, clients get virtual terminal with 2 cores (2.13GHz) and 6GB of RAM	Atlas.ti, ArcGIS, HLM, Mplus, Nvivo, R, Stata/SE, SPSS, Ucinet, WinBUGS, StatTransfer	Work that requires special applications, not much RAM; "boutique" applications
Application server + data warehouse (coming this fall)	Kellogg faculty and doctoral students	Application server: Win 7 64 bit, 88 cores Intel Westmere-EX, 256GB of RAM, 50TB storage; clients get virtual terminal. Data warehouse: 44 cores, 128GB of RAM	Matlab, SAS, Stata/MP8, StatTransfer	Jobs that demand RAM, some types of computationally intensive or data intensive

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Software for workstations & laptops

- ❑ NU licenses that require annual payment: SAS, SPSS, Mathematica, Matlab. Typical expiration date is August 31 (regardless of when you paid for it; most packages have a 'grace period'). The Matlab license payment is handled by Research Support, all others are requested and paid through SHI (look for it under iBuyNU in <http://nuportal.northwestern.edu>)
 - ❑ Note on iBuyNU: netid must be typed in capital letters; the first time you login, the password is your employee number.
- ❑ NU site licenses that require no payment: Secure Shell SSH, X-Win32, EndNote
- ❑ Kellogg site licenses that require no payment: z-tree, MediaLab, DirectRT. Stata/IC for faculty that will use it in MBA teaching.
- ❑ Special discount plans: Stata, StatTransfer (Kellogg Stata GradPlan)
- ❑ Other: Scientific WorkPlace/Word group order (to get volume discounts) when there is a new release

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Some useful utilities

- ❑ **SSH Secure Shell**
 - Encrypted communication
 - Very efficient (does not use a lot of resources)
 - Text-mode
- ❑ **Starnet X-Win32**
 - Allows graphical interface emulation
 - Requires VPN from off-campus
 - Can be slow due to rendering of graphics

www.kellogg.northwestern.edu/researchcomputing/terminal-emulators.htm

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Some useful utilities (continued)

❑ Endnote

- Site license provided by the Library
- Bibliography management package
- Can connect to various databases to retrieve citations
- Can use it to format your bibliography in Word and also to generate a BibTeX file for use with LaTeX.
- Can create keywords to categorize citations in the database

❑ StatTransfer

- In skew4 or seldon (SSCC); also available for purchase
- Translates datasets between different formats

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Key corporate data holdings

- ❑ Accounting data: Compustat (Global, North America), Datastream, Global Access, Economatica
- ❑ Stock market: CRSP daily/monthly stocks, Datastream, TAQ, ISSM
- ❑ Bonds: FISD/Mergent, CRSP US Treasuries, Moody's DRS, TRACE
- ❑ Derivatives: OptionMetrics, R&C Futures, Datastream
- ❑ Mutual funds: CRSP Mutual Fund database, Thomson Financial Mutual Fund Holdings, MFlinks
- ❑ Analyst forecasts: Zacks, First Call, ValueLine, IBES
- ❑ Corporate governance: RiskMetrics (Governance, Directors, Dilution), Execucomp, Thomson Financial Insiders ("Lancer Analytics"), Hemscott Executive Compensation
- ❑ Financial transactions (mergers, acquisitions, initial public offerings, seasoned equity offerings, bankruptcies): SDC Platinum, most dates available in CRSP events files.
- ❑ Ownership: Thomson Financial 13F filings, Mutual Fund Holdings, Insiders,IRRC Directors, ExecuComp, Hemscott, Blockholders

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Some macro data

- ❑ World Bank's World Development Indicators (Library)
- ❑ IMF's International Financial Statistics, Balance of Payments Statistics, Government Statistics
- ❑ DRI/Basic
- ❑ Datastream
- ❑ Other data from multilateral organizations: check Library Gov Docs section

www.library.northwestern.edu/govinfo/index.html

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NU subscriptions

- ❑ Inter-University Consortium for Political and Social Research (ICPSR):
www.icpsr.umich.edu
 - Includes many datasets from the Bureau of the Census: CPS, County Business Patterns...
 - Includes Panel Study of Income Dynamics (PSID), General Social Survey (GSS), World Values Survey, Eurobarometer surveys, etc
 - Can download directly with your NU email address
- ❑ Roper Institution: www.ropercenter.uconn.edu
 - Poll data
 - Can download directly with "Roper Express" service (IP authentication)
- ❑ Subscriptions managed by the Library's Social Science Data Services

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Getting new datasets

- ❑ Cost sharing approach
- ❑ Research budgets
- ❑ Department funds
- ❑ Dean's Office will match for school wide licenses
 - Talk to your chair
 - Talk to researchers with similar interests
 - Approach Office of Research
 - Why is this dataset interesting (especially if we have a similar resource)? Have a description at hand.
 - We need to make a case
 - There is also purchasing protocols (single source justification or "SSJ" forms)
 - Have time horizons in mind: how long is the data going to be needed, are periodic updates needed
 - Many subscription agreements require data to be purged when the license is discontinued.

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Where is the data hidden?

- ❑ WRDS
- ❑ Datasets not available through WRDS ("flat" datasets, e.g. in ASCII format, but also some SAS and Stata files) are store in skew4
- ❑ Datasets that require a Windows interface (for example, SDC Platinum or Economatica) are stored in [\ksmr01](#), an MS Windows server. Access by going to your desktop Start menu, select run and type [\ksmr01](#) (or \\ksmr01.kellogg.local)

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WRDS

- WRDS = Wharton Research Data Services
- Holds many of Kellogg's data subscriptions
- Sun Solaris server, 64 cores, 128MB of RAM
- Access with Secure Shell SSH or via the web
- Heavily used by subscribers, skew4 will be faster doing data processing ⇒ Use WRDS for data extraction
- Avoid the web interface (use SAS instead):
 - Replicability
 - Rounding
 - Data "clean-up": WRDS drops observations with missing values in selected variables
- Web interface useful for quick checks and for teaching

wrds.wharton.upenn.edu

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WRDS web site

The screenshot shows the WRDS web site interface. At the top, there is a navigation bar with tabs for HOME, TOOLS, SUPPORT, E-LEARNING, FORUMS, NEWS, ABOUT, and MyWRDS. A search bar is located to the right of the tabs. Below the navigation bar, the main content area is divided into two columns. The left column contains a "Select a Data Set:" dropdown menu and a list of "Current Subscriptions" including AuditAnalytics, Bank Regulatory, Blockholders, Bureau van Dijk, CBOE Indexes, CISDM Hedge fund, COMPSTAT, CRSP, CUSIP, Corporate Library, DMEF Academic Data, Dow Jones, Eventus, FDIC, Fama French & Liquidity Factors, Federal Reserve Bank, First Call, GSIOnline Trial, IBES, and IHS Global Insight. The right column features an "Important WRDS Alert - Wednesday, October 12, 2011, 10:40 AM" with the following text: "WRDS announces the addition of FactSet data on WRDS. Wharton Research Data Services (WRDS), the leading comprehensive, internet-based data research service, is pleased to announce the addition of the FactSet Fundamentals dataset to its already robust data offerings. WRDS provides instant access to over 200 terabytes of data across Finance, Accounting and Economic disciplines, making it the gold standard for business intelligence for 30,000 users in 27 countries. FactSet Fundamentals is a comprehensive global database, providing users with a firm foundation for financial analysis. Covering more than 67,000 global public and private companies encompassing the Americas, Europe/Africa, and Asia-Pacific. In April 2008, FactSet won the right to purchase a copy of the Thomson Worldscope Database. As of May 2010, FactSet Fundamentals has been solely collected by FactSet. When first acquired from Thomson, Fundamentals data had over 43,000 companies and history back to 1980. FactSet has added over 2,000 new dually listed securities and adding nearly 6,000 new securities to the database on a net basis. Features: - Broad scope and deep history - Data offered on a standardized basis and on an as-reported basis - Choice of restated data (from 2004) and non-restated data - Extensive ratio data - Calendarized data. 665 data items (including ratios) are available for each full annual in developed markets from the 1980s and emerging markets from the early 1990s. FactSet allows users to compare companies accurately; perform in-depth aggregate analysis; see current and historical breakdowns of a company's geographic and business segments."

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Experimental research facilities

- ❑ 3 subject pools
 - ❑ Two undergraduate subject pools: one for MORS and one for Marketing and Behavioral Econ/Finance
 - ❑ eLab (non Northwestern population; online studies only)
- ❑ 2 laboratories for computer based experiments (3rd and 4th floors)
- ❑ 6 break out rooms (3rd floor) with video cameras
- ❑ Audio/video equipment
- ❑ Web surveys: Cogix ViewsFlash (hosted by Kellogg, a bit clunky, allows netid authentication), Qualtrics (hosted by vendor, very user friendly)
www.kellogg.northwestern.edu/kis/websurveys/
- ❑ Software: MediaLab, DirectRT, z-tree. Custom programs in languages such as C, java, or perl.

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Behavioral labs



- Collection of ready-to-use (MediaLab and Qualtrics) measures in personality/social psychology and marketing for online studies.
- http://www.kellogg.northwestern.edu/rc/sec/faculty_and_phd-only/labs/atlantis.htm

Scale	Citation	Description	MediaLab Questionnaire	Qualtrics Survey
Action Identification	Wegner, D. M., Vallacher, R. R., & Dizadji, D. (1989). Do Alcoholics Know What They're Doing? Identifications of the Act of Drinking . <i>Basic and Applied Social Psychology</i> , 10(3), 197-210.	Measure of mentalization. 34 items.	MediaLab	Qualtrics* (see above)
Ambivalence Towards Men Inventory	Glick, P., & Fiske, S. T. (1999). The Ambivalence Towards Men Inventory . <i>Psychology of Women Quarterly</i> , 23, 519-536.	Measure of women's hostile and benevolent prejudice towards men. 20 items.	MediaLab	Qualtrics* (see above)
Ambivalent Sexism	Fiske, S. T., & Glick, P. (2001). An Ambivalent Alliance. Hostile and Benevolent Sexism as Complementary Justifications for Gender Inequality . <i>American Psychologist</i> , 56(2), 109-118.	Measure of hostile and benevolent sexism towards women. 22 items.	MediaLab	Qualtrics* (see above)

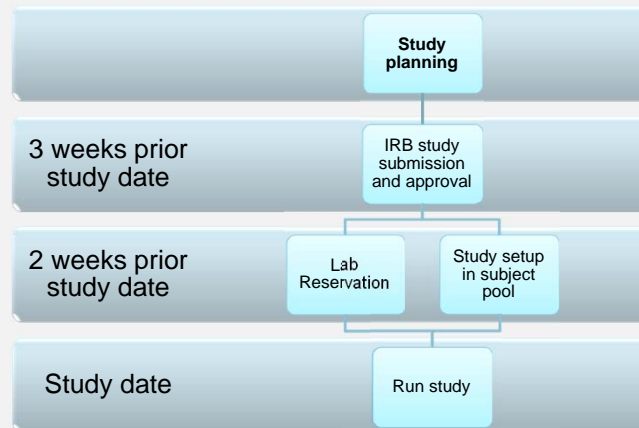
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Subject pools

- Split in student pools reflects methodological concerns about deception in payment. The Mktg & Behavioral Econ pool does not allow any kind of deception in payment.
- Some overlap between the student pools, since participants cannot be prevented from signing up for both.
- Joint recruiting and split of subjects at the beginning of the school year.
- Use of pools is for Kellogg faculty, post docs and PhD students only – no external colleagues!

	Subjects	Active (filled at least pretest)
MORS	4,077	1,089
Marketing and Behavioral Economics & Finance	3,656	2,816
eLab (online studies only)	8,308	5,634

Plan your studies



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Planning 101: IRB

- ❑ Web site: www.research.northwestern.edu/research/OPRS/irb/
- ❑ IRB certification: CITI training www.citiprogram.org/
- ❑ Transfer certification from another institution: email Eileen Yates at OPRS eyates@northwestern.edu

- ❑ Keep in mind:
 - IRB approval process takes time, so plan accordingly
 - PhD must have a faculty member as PI
 - All research personnel – including RAs - should be certified and included in the study IRB
 - Pre-test materials require IRB approval
 - Check whether you qualify for exempt/expedited review
 - Umbrella IRB submissions
 - Use of secondary data
- ❑ Get in touch with Alain for IRB support

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Scheduling studies, subject pool

- Policies posted on the Research Computing site
- Systems:
 - Subject pools: SONA Systems
 - Lab schedule: Meeting Room Manager
- Payment system

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If you leave NU

- Only NU faculty can be PI on a research project.
- Make sure you finish your studies before you leave, since you will no longer have access to our subject pools or web survey tools.
- Submit IRB protocols in your new host institution right – if you have any co-authored projects with a Northwestern PI, the NU IRB will likely require proof of approval by your host institution.

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Resource “library” – room 4219 in Jacobs

- ❑ Documentation (user guides, related books) about the statistical / mathematical software and datasets available at the school
- ❑ One week borrowing – renewable unless someone is waiting for the title.
- ❑ Please remember to sign out and return titles – we rely on good citizenship.
- ❑ Suggestions for titles are welcome.

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Full text data sources

- ❑ Many journals online
 - JSTOR
 - Business Source Premier
 - ABI/Inform
- ❑ Search NUcat.library.northwestern.edu for links or er.library.northwestern.edu
- ❑ Some resources omitted from library catalog (NUcat)
- ❑ Important databases:
 - Abstracts/citations: EconLit, PsychInfo, Sociological Abstracts, Social Science Citation Index (Web of Science)
 - Working papers: subscribe to SSRN (<http://www.kellogg.northwestern.edu/researchcomputing/ssrn.htm>)

Tip: If you are working from home and have found a paper online on a journal site, you can test whether Northwestern has a subscription by adding “.turing.library.northwestern.edu” at the end of the domain/server name to get authenticated as a Northwestern subscriber. On campus, most journals recognize the Northwestern domain.

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Full text data sources (continued)

- ❑ Firm “histories”, lists of subsidiaries and joint ventures
 - Capital Changes
 - S&P NetAdvantage
 - Hoover’s Online
- ❑ Analyst reports (full text PDFs)
 - Thomson ONE Research (Library may revert to Investext Plus)
- ❑ Other interesting resources:
 - MarketResearch.com
 - ISI Emerging Markets
 - Economist Intelligence Unit country reports
 - OxResearch
 - Euromonitor Global Market Information Database

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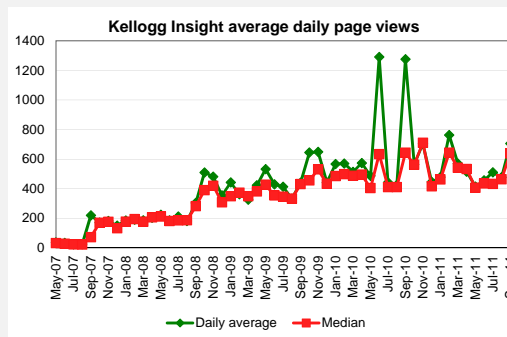
Research assistants

- ❑ Paid from research budget
- ❑ Undergraduate RAs
 - Kellogg Database of Research Assistants (a list of prospective RAs and their skills, refreshed every academic year)
<http://www.kellogg.northwestern.edu/researchcomputing/sec/faculty-only/grantsandras.htm#ras>
 - Work study students (you can post job ads for work study students)
<http://ug-finaid.northwestern.edu/work-study/jobs/index.html>
 - Undergraduate Arch search engine (you can post research opportunities for undergraduates)
<http://undergradresearch.northwestern.edu/undergrad-arch>

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Kellogg Insight (Established 2007)

- Monthly digest of faculty research (focus on peer reviewed publications, occasionally working papers)
- Written by science / freelance writers
- Podcasts
- Translations (Chinese, Spanish, German, French)
- Editorial and operation boards
- Further reproduction through licensing agreements (e.g. EIU, Morningstar)



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Where was it?

<http://insight.kellogg.northwestern.edu>

- If you have a new paper accepted, let us know! We can work with Marketing & Communications (“MarkComm”) around embargos for press releases.
- Use articles for your case packets – the goal of Insight is to disseminate your research and enhance the understanding of research within the Kellogg community.

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Blogs

- Another vehicle to disseminate research, tie in to current events
- List of blogs: <http://www.kellogg.northwestern.edu/Faculty/Blogroll.aspx>
- Blog from the research support team (editor: Tim De Chant):
 - Expertly Wrapped
 - <http://expertlywrapped.wordpress.com/>
- MarkComm keeps a list of faculty who use Twitter:
 - <http://twitter.com#!/KelloggSchool/faculty>

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Maintain your visibility!

- Update your faculty page “early and often”
(kelloggwebsupport@kellogg.northwestern.edu until self service is overhauled)
- Have a personal page in your “W drive” (\\kis-nt2\docs), link it from your signature
- Published versions of papers only if the journal allows. How do we know?
<http://www.kellogg.northwestern.edu/researchcomputing/sec/fps/index.htm>

But who uses your web page?

- Our students (PhD students included) look at it.
- Prospective faculty and doctoral students.
- We do ... to find papers to feature in *Insight*.
- Colleagues at other universities do when looking for whom to invite to seminars, when they are writing tenure/promotion letters and need to compare you to a peer.
- Random “Googlers” – increase the likelihood of having your work cited.

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