

# **Can We Talk?**

## **Innovative Responses to the Data Integration Challenge**

### **Appendices to Paper Published in the Spring 2007 Issue of the *Journal of Information Technology in Social Change***

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These appendices represent detailed information about the research methodology, including the survey and interview instruments, used in conducting the research for “Can We Talk? Innovative Responses to the Data Integration Challenge,” published in the inaugural issue of the *Journal of Information Technology in Social Change*. These appendices are made available online for those academics, researchers, or others who might be interested in more detailed information about the research that was included in the paper.

#### **Appendix A – Appreciative Inquiry Interview Instrument**

The researchers solicited interviews through list serves that discuss topics of nonprofit and technology. Interview requests were posted to the following list serves: NTEN (including the general discussion group, 501Tech in DC and Integration affinity groups), Information Systems Forum and NOSI.

The interviews were designed following an appreciative inquiry approach to organizational learning and transformation in order to reframe questions about the challenge of data integration using affirmative language. This approach was developed in the mid-1980s by David Cooperrider and his colleagues at the Weatherhead School of Management at Case Western Reserve University, Cleveland.

Using this approach, the researchers asked nonprofit respondents to focus on peak / extraordinary moments of organizational excellence from the organization’s history. Interview questions also probed for unique factors that made those moments possible. Though the questions were open ended, the interview protocol served to guide and shift the respondents’ focus from organizational deficits to assets as a way to discover best practices and innovations that can inform the field.

- 1) Would you say that your position is:
  - a) Executive/Senior Management
  - b) Management/Associate
  - c) Support staff
  - d) Board member
  - e) Volunteer
  - f) Other, please specify

- 2) In what area of your organization do you work?
  - a) Administration (Finance, HR, Operations)
  - b) Development/Fundraising
  - c) Program
  - d) Technology
  - e) Other, please specify
- 3) Please select your primary organizational affiliation.
  - a) Nonprofit organization
  - b) School, college, or university
  - c) Non-governmental donor or philanthropic organization
  - d) Membership association
  - e) Management support organization
  - f) Consultant
  - g) Other, please specify
- 4) What is the zip or postal code for your organization's headquarters?
- 5) What is your organization's staff size (full time employees)?
  - a) 0-10
  - b) 11-25
  - c) 26-50
  - d) 51-100
  - e) 101-500
  - f) 501-1000
  - g) over 1000
- 6) What is your organization's primary funding source(s)?
  - a) Individual donations
  - b) Public support (local, state, federal government funding)
  - c) Grants from private, corporate or community foundations
  - d) Special events/annual fundraisers
  - e) Earned revenue (i.e. fee for service, membership, interest income)
  - f) Other, please specify
- 7) What is your organization's annual budget?
  - a) Under \$50,000
  - b) Between \$50,000 - \$99,999
  - c) Between \$100,000 - \$249,999
  - d) Between \$250,000 - \$499,999
  - e) Between \$500,000 - \$999,999
  - f) Between \$1 million - \$2.9 million
  - g) Between \$3 million - \$4.9 million
  - h) Between \$5 million - \$9.9 million
  - i) Over \$10 million
- 8) What does the topic **information sharing** mean to you?
  - a) What about **data integration**?
  - b) And **knowledge management**? (optional)
- 9) What specific experience made you interested in developing or adopting **information sharing** practices at your current organization?
- 10) Have you been involved in efforts to improve data sharing systems or practices at your

organization?

a) Yes/No

11) **Best Experience:** Reflect for a moment and remember an exceptional or “best” experience you have had with information sharing (or knowledge management) efforts occurring at your organization. Tell me a story about that experience

*Probes:*

- What was happening?
- Who did it involve?
- What was their role?
- Your role?

12) What was the core factor that contributed to this successful experience?

13) What was most energizing, inspiring, uplifting for you about this experience?

14) **Values (a):** What do you value most about the topic of information sharing (knowledge management)?

15) **Values (b):** And what value do you feel *you* bring to the topic of information sharing (knowledge management)?

16) **Three Wishes:** Reflecting on the story you just told, if you had three wishes for having more exceptional experiences like the one you just described, what would they be?

17) What specific conditions were present, or what external factors influenced, your efforts to integrate your data or share information across systems?

- a) Internal conditions, such as organizational leadership or culture?
- b) External factors, such as political or economic circumstances?
- c) Other?

18) Did your organization's move toward integration require you to create new working relationships, either internally or externally? For example, with co-workers, departments, other organizations/ agencies, contractors, funders, competitors, etc.?

- a) Y/N
- b) Please describe why or why not

19) What do you think is the most powerful benefit your organization has achieved through implementing IT solutions for **sharing information**?

20) What are the possibilities that enhance or maximize the potential for **information sharing**?

21) What would you like to do that you haven't been able to do because of concerns about **data integration**?

22) What options do you see for meeting this challenge?

23) Identify the types of software or IT systems your organization currently uses. One system may perform multiple functions. Check all that apply.

- a) Productivity tools (ex. Microsoft Word, Excel, PowerPoint)
- b) Accounting/business applications (ex. Quickbooks, ClickTime)
- c) Fundraising/donor management software (ex. eTapestry, Raiser's Edge)
- d) Customer/Constituent Relationship Management "CRM" (ex. Convio)
- e) Event management (ex. Acteva)
- f) Content Management System "CMS" (ex. Kintera, CitySoft)
- g) Volunteer management (ex. Volunteer Impact, Volgistics)
- h) Grants management software (ex. MicroEdge, CyberGrants)
- i) Program performance management (ex. Community TechKnowledge)
- j) Case management/tracking (ex. Efforts to Outcomes or "ETO software")

- k) Online advocacy campaigns (ex. GetActive, Advocacy Central)
  - l) Online community building/social networking (ex. GoLightly)
  - m) E-learning (ex. Isoph, Meridian)
  - n) Knowledge management (ex. SharePoint)
  - o) Other, please specify
- 24) Of the systems you just indicated, which one is your "core" system - the one that holds your organization's most essential data?
- 25) Please indicate how well each type of information is linked between different systems or databases in your organization.
- a) Information about people (staff, volunteers, members, donors, funders, etc.)
  - b) Information about programs, projects, campaigns and organizational performance
  - c) Financial information
- 26) How would you rate the importance of data integration issues relative to other organizational priorities?
- 27) If money were no object, how would you rank the organization's data integration or information sharing priorities for the next year or two?
- a) Converting paper-based systems to IT systems
  - b) Upgrading existing systems
  - c) Purchasing new data management systems
  - d) Combining data from different databases into a central database
  - e) Implementing solutions so that existing systems can exchange data
  - f) Enable communication between systems or software applications
- 28) Which audiences would benefit the most from implementing IT solutions for sharing information at your organization? *Check all that apply.*
- a) Board, staff, volunteers
  - b) Constituents, members, donors, clients (current or potential)
  - c) Funding/sponsoring organizations (current or prospective)
  - d) Other, please specify
- 29) Is there anything else about data integration/information sharing in nonprofits that you would like to add?

## Appendix B – Consultant/Vendor/Industry Expert Interview Instrument

- 1) What percentage of your clients are in the nonprofit sector?
  - a) Of these, approximately what percentage are nonprofit organizations vs. foundations/funders?
- 2) What types of data integration projects have you done for nonprofit clients?
  - a) How many of these projects have you done?
- 3) What are some trends in data integration and information sharing that you have observed among your nonprofit clients?
  - a) Features (prompt, if needed: dashboards, single sign-on, Web 2.0, etc.)
  - b) Functions (for example, productivity applications, fundraising, accounting, social networking, advocacy, program/ performance management)
  - c) Audiences (internal audience – board, staff, volunteers; external audience – constituents, members, donors, clients; funding/sponsoring organizations?)
  - d) Who owns the data (if it is shared between systems)? (Note: this may be a bit hard to get at in looking at trends. I suspect the answer will be “It depends.” But we should wrap this into interviews with nonprofits, too, to get at how this question is approached/resolved in each case)
- 4) Can you give me specific examples of integration efforts with your nonprofit clients that are innovative/unique/leading edge?
  - a) Try to get at what technologies are used, what systems are brought together, what pieces of data are brought together, organizational constraints or conditions
  - b) How is this new or significantly different from other integration projects you have done or are aware of being done in the sector?
- 5) DRIVERS: When these clients approached you for data integration-related projects, what problems did they approach you with? What were they trying to solve?
- 6) Would you characterize as any of these projects as successful?
  - a) If yes, why?
  - b) OPPORTUNITY MOMENTS: What specific conditions were present, or what external factors influenced, your clients' ability to successfully integrate their data or share information across systems? (prompt for internal conditions such as organizational leadership or culture, and external factors such as political or financial circumstances)
  - c) COLLABORATION: Did your clients' move toward integration require them to create new working relationships, either internally or externally, with co-workers, departments, other organizations/agencies, contractors, funders, competitors, etc.?
- 7) Would any of your clients be willing to talk with us about their data integration experience (and potentially be the subject of a case study)?
- 8) Is there anything else about data integration/information sharing in nonprofits that you would like to add?

## Appendix C – Survey Instrument

### Nonprofit Survey Instrument for Appendix

- 1) Would you say that your position is:
  - a) Executive/Senior Management
  - b) Management/Associate
  - c) Support staff
  - d) Board member
  - e) Volunteer
  - f) Other, please specify
- 2) In what area of your organization do you work?
  - a) Administration (Finance, HR, Operations)
  - b) Development/Fundraising
  - c) Program
  - d) Technology
  - e) Other, please specify
- 3) What does the phrase “data integration” mean to you?
- 4) Please select your primary organizational affiliation (“consultant” branches to question #23).
  - a) Nonprofit organization
  - b) School, college, or university
  - c) Non-governmental donor or philanthropic organization
  - d) Membership association
  - e) Management support organization
  - f) Consultant
  - g) Other, please specify
- 5) What is the zip or postal code for your organization's headquarters?
- 6) What is your organization's staff size (full time employees)?
  - a) 0-10
  - b) 11-25
  - c) 26-50
  - d) 51-100
  - e) 101-500
  - f) 501-1000
  - g) over 1000
- 7) What is your organization's primary funding source(s)?
  - a) Individual donations
  - b) Public support (local, state, federal government funding)
  - c) Grants from private, corporate or community foundations
  - d) Special events/annual fundraisers
  - e) Earned revenue (i.e. fee for service, membership, interest income)
  - f) Other, please specify
- 8) What is your organization's annual budget?
  - a) Under \$50,000
  - b) Between \$50,000 - \$99,999

- c) Between \$100,000 - \$249,999
  - d) Between \$250,000 - \$499,999
  - e) Between \$500,000 - \$999,999
  - f) Between \$1 million - \$2.9 million
  - g) Between \$3 million - \$4.9 million
  - h) Between \$5 million - \$9.9 million
  - i) Over \$10 million
- 9) Has your organization spent money on data integration in the past year or two? If so, how much?
- a) less than \$10,000
  - b) \$10,000 - \$20,000
  - c) more than \$20,000
- 10) Identify the types of software or IT systems your organization currently uses. One system may perform multiple functions. Check all that apply.
- a) Productivity tools (ex. Microsoft Word, Excel, PowerPoint)
  - b) Accounting/business applications (ex. Quickbooks, ClickTime)
  - c) Fundraising/donor management software (ex. eTapestry, Raiser's Edge)
  - d) Customer/Constituent Relationship Management "CRM" (ex. Convio)
  - e) Event management (ex. Acteva)
  - f) Content Management System "CMS" (ex. Kintera, CitySoft)
  - g) Volunteer management (ex. Volunteer Impact, Volgistics)
  - h) Grants management software (ex. MicroEdge, CyberGrants)
  - i) Program performance management (ex. Community TechKnowledge)
  - j) Case management/tracking (ex. Efforts to Outcomes or "ETO software")
  - k) Online advocacy campaigns (ex. GetActive, Advocacy Central)
  - l) Online community building/social networking (ex. GoLightly)
  - m) E-learning (ex. Isoph, Meridian)
  - n) Knowledge management (ex. SharePoint)
  - o) Other, please specify
- 11) Of the systems you just indicated, which one is your "core" system - the one that holds your organization's most essential data?
- 12) Please indicate how well each type of information is linked between different systems or databases in your organization.
- a) Information about people (staff, volunteers, members, donors, funders, etc.)
    - i) Not at all linked
    - ii) Somewhat linked
    - iii) Fully linked
  - b) Information about programs, projects, campaigns and organizational performance
    - i) Not at all linked
    - ii) Somewhat linked
    - iii) Fully linked
  - c) Financial information
    - i) Not at all linked
    - ii) Somewhat linked
    - iii) Fully linked
- 13) Have you been involved in efforts to improve data sharing systems or practices at your

organization?

- 14) What are the main challenges you were or are trying to solve?
- 15) What specific conditions were present, or what external factors influenced, your efforts to integrate your data or share information across systems?
- 16) Did your organization's move toward integration require you to create new working relationships, either internally or externally? For example, with co-workers, departments, other organizations/ agencies, contractors, funders, competitors, etc.?
- 17) Please describe what specific experience made you interested in developing or adopting information sharing practices at your current organization?
- 18) How would you rate the importance of data integration issues relative to other organizational priorities?
  - a) Critical
  - b) Important
  - c) Nice to have
  - d) Not necessary
  - e) Not sure/undecided
- 19) If money were no object, how would you rank the organization's data integration or information sharing priorities for the next year or two?
  - a) Converting paper-based systems to IT systems
    - i) Top priority
    - ii) Medium priority
    - iii) Low priority
    - iv) N/A
  - b) Upgrading existing systems
    - i) Top priority
    - ii) Medium priority
    - iii) Low priority
    - iv) N/A
  - c) Purchasing new data management systems
    - i) Top priority
    - ii) Medium priority
    - iii) Low priority
    - iv) N/A
  - d) Combining data from different databases into a central database
    - i) Top priority
    - ii) Medium priority
    - iii) Low priority
    - iv) N/A
  - e) Implementing solutions so that existing systems can exchange data
    - i) Top priority
    - ii) Medium priority
    - iii) Low priority
    - iv) N/A
  - f) Enable communication between systems or software applications
    - i) Top priority
    - ii) Medium priority

- iii) Low priority
  - iv) N/A
- 20) Which audiences would benefit the most from implementing IT solutions for sharing information at your organization? Check all that apply.
    - a) Board, staff, volunteers
    - b) Constituents, members, donors, clients (current or potential)
    - c) Funding/sponsoring organizations (current or prospective)
    - d) Other, please specify
  - 21) Would you be willing to talk with us in more depth about your data integration experience (and potentially be the subject of a case study)?
  - 22) Please provide your name, the name of your organization, an email address and phone number.
  - 23) What percentage of your clients are in the nonprofit sector?
  - 24) Of these, approximately what percentage are non-grantmaking, nonprofit organizations?
  - 25) Have you helped your nonprofit clients with data integration projects?
  - 26) Approximately how many data integration projects have you assisted nonprofits with?
    - a) 1-3
    - b) 4-11
    - c) 12 or more
  - 27) Please indicate the types of data integration projects have you helped your nonprofit clients with.
  - 28) What is the typical or average cost of the data integration solutions you have implemented for your nonprofit clients?
    - a) less than \$10,000
    - b) \$10,000 - \$20,000
    - c) more than \$20,000
  - 29) Of the nonprofits you have helped in implementing IT solutions for sharing information, which audiences were the primary beneficiaries of those solutions?
    - a) Board, staff, volunteers
      - i) Yes – beneficiary
      - ii) No – not beneficiary
      - iii) Not sure
    - b) Constituents, members, donors, clients (current or potential)
      - i) Yes – beneficiary
      - ii) No – not beneficiary
      - iii) Not sure
    - c) Funding/sponsoring organizations (current or prospective)
      - i) Yes – beneficiary
      - ii) No – not beneficiary
      - iii) Not sure
  - 30) Please reflect on a specific example of an integration effort with a nonprofit client that was innovative/unique/leading edge.
  - 31) When these clients approached you for data integration-related projects, what problems did they approach you with? What were they trying to solve?
  - 32) Would you characterize as any of these projects as successful?
  - 33) What specific conditions were present, or what external factors influenced, your client's

- ability to successfully integrate their data or share information across systems?
- 34) Did your clients' move toward integration require them to create new working relationships, either internally or externally? For example, with co-workers, departments, other organizations/agencies, contractors, funders, competitors, etc.?
  - 35) Would any of your clients be willing to talk with us about their data integration experience (and potentially be the subject of a case study)?
  - 36) Is there anything else about data integration/information sharing in nonprofits that you would like to add?

## Appendix D – Comparison of Survey Respondents to Sample Population and Nonprofit Sector

In order to offset a potentially technology-heavy bias of self-selected interview respondents, and to collect information from a larger pool of organizations, a survey was sent to members of the [www.innonet.org](http://www.innonet.org) online community who have opted-in to receive emails and surveys. This population was also chosen because of the research team’s ready access to the approximately 8,000 individuals in the subscriber list.<sup>i</sup>

The survey was launched in February 2007 using Zoomerang.com, an online survey provider. The survey remained open for one week, and a reminder was sent to recipients two days before closing the survey. Access to the survey was controlled to prevent multiple completions by the same respondent or passing the survey along to others to complete. The original invitation saw an open rate of 25.9 percent. This open rate was calculated based on the number of people who opened the survey invitation email out of the number of people who were sent the email, minus bounces and opt-outs.<sup>ii</sup> Of the 1,924 people who opened the invitation email, 208 people completed the full survey for a 10.8 percent response rate. Survey results were analyzed using Zoomerang.com’s cross tabulation reports and Excel spreadsheet tools.

The large non-response rate introduces potential bias to the results. Another source of potential bias is the web-based format of administering the survey to an online population that may be more inclined to use email and the Internet than the general nonprofit population. For these reasons, the research team looked further to see how the respondents and targeted sample used for this survey—the innonet.org online community—compare to the nonprofit population.

On some of the indicators that are available, the profile of survey respondents and that of the targeted sample are fairly consistent with the profile of organizations working in the nonprofit sector on a national scale. For example, for all three profiles:

- The lion’s share of organizations’ programmatic focus falls into human services, health and public/societal benefit;
- The majority of profiles—roughly two-thirds to three-quarters—identify themselves as being affiliated with nonprofit service organizations;
- The innonet.org sample is concentrated in the Northeast, but is dispersed geographically, representing 50 states, similar to the nonprofit population.

It is also important to highlight a few noteworthy differences across these three profiles:

- Organizations with budgets under \$1 million a year make up over 80 percent of the nonprofit sector whereas only 55 percent of the innonet.org sample have budgets under \$1 million; similarly, the innonet.org respondents and sample has a considerably larger proportion of organizations with budgets over \$10 million, ranging from 15 to 18 percent, as compared to just under 4 percent for the overall nonprofit population;
- There are differences in the ways that the “Other” affiliation category is defined in the innonet.org population as opposed to how it is defined by NCCS, the source for the parameters of the nonprofit sector characteristics;

- There is no data available on the individuals' position/title within the overall nonprofit population;
- The nonprofit sector parameters are confined within the U.S., whereas approximately 20 percent of the innonet.org sample and 15-30 percent of the survey respondents are based outside the U.S.<sup>iii</sup>

	Survey Respondents (N=208) 2/2007	Innonet.org Profile Targeted Sample (N=7,900) <sup>iv</sup> 5/2006	Nonprofit Sector Population (N=1.4 million) <sup>v</sup> 2004
<i>Respondent Position</i>	<i>N=206</i>	<i>N=166</i>	
Executive/Senior Management	47%	80%	N/A
Management/Associate	23%	26%	N/A
Support staff	7%	3%	N/A
Board member	9%	5%	N/A
Volunteer	3%	N/A	N/A
Other	12%	17%	N/A
<i>Affiliation</i>	<i>N=208</i>	<i>N=212</i>	
Nonprofit service organization	75%	52%	60%
Consulting firm <sup>vi</sup>	13%	16%	N/A
Schools or universities	4%	11%	(counted as NPO)
Foundations and government funding agencies	3%	4%	7%
Other	5%	11% <sup>vii</sup>	33%
<i>Annual Budget Size</i>	<i>N=175</i>	<i>N=119</i>	
Under \$1 million	51%	52%	81.2%
Under \$50,000	10%	10%	24.2%
\$50,000 - \$99,999	9%	12%	17.9%
\$100,000 - \$249,999	13%	13%	19.0%
\$250,000 - \$499,999	9%	10%	11.3%
\$500,000 - \$999,999	10%	7%	8.8%
\$1 million - \$4.9 million	26%	23%	12.1%
\$5 million - \$9.9 million	6%	8%	2.8%
Over \$10 million	18%	17%	3.9%
<i>Programmatic Focus</i>		<i>N=318<sup>viii</sup></i>	
Human Services	N/A	34%	34.5%
Health	N/A	14%	12.9%
Public/Societal Benefit	N/A	14%	11.8%
Arts & Humanities	N/A	13%	10.7%
Education	N/A	11%	17.7%
Environment	N/A	6%	3.9%
International	N/A	3%	1.9%
Religious	N/A	3%	5.9%
Other	N/A	12%	0.6%

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<sup>i</sup> www.innonet.org is the website of Innovation Network, Inc., a nonprofit evaluation consulting firm where one of the researchers is employed. The subscriber list includes registered users of the Point K Learning Center (a collection of online tools and resources) and subscribers to Innovation Network's quarterly e-newsletter, *Transforming Evaluation*. These two groups are overlapping—neither identical nor mutually exclusive.

<sup>ii</sup> 511 emails (6.4%) bounced upon delivery; 9 people (0.1%) opted out of the mailing list upon receipt of the survey invitation; 1,924 emails were opened by the recipients.

<sup>iii</sup> Of the 208 surveys completed, 31 respondents (14.9%) listed non-U.S. postal codes, and another 32 respondents (15.4%) did not answer the question about postal code and therefore could be outside the U.S.

<sup>iv</sup> Source: 2006 survey of innonet.org registered users and newsletter subscribers

<sup>v</sup> Source: NCCS National Nonprofit Research Database, Special Research Version (2004).

<sup>vi</sup> Includes independent consultants and management support organizations.

<sup>vii</sup> Government funding agencies, unaffiliated individuals, and other types of organizations.

<sup>viii</sup> Source: March 2005 survey of innonet.org registered users.