




# Ethics of Business Intelligence: A Practical Treatment



## Ethics in Business Intelligence: A Practical Treatment


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TDWI Night School  
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## Biography



- **Richard Hackathorn**  
Bolder Technology, Inc.
- President and founder with thirty years of IT experience. Regular columnist for DM Review. Conducted seminars in eighteen countries. Author of three books: *Web Farming for the Data Warehouse*, *Using the Data Warehouse*, *Enterprise Database Connectivity*. Professor at the Wharton School, Univ. of Pennsylvania, and at the Univ. of Colorado. BS from Caltech; MS and Ph.D. from Univ. of California, Irvine.
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- Resource Site: <http://www.bolder.com/ethics>



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## Abstract

- **Ethics in Business Intelligence and Data Warehousing?! Now that's a touchy subject in today's nervous world! However, every professional engaged in BI today should have an understanding of key ethical issues and skills to deal with ethical situations. This is one area where a little preparation is invaluable before a situation spins out of control.**
- This presentation will cover:
  - Definition and basis of ethical situations
  - Ethics in other professional associations
  - The hot ethical issues in BI
  - Skills for dealing with ethical situations
  - Suggested next steps for your company
  - Resources on ethics



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## Situation #1

- **Todd is a business analyst for a large bank. At a training class for using your new query tool with their customer database, he was fascinated by the power of the tool. Seeking the perfect mate, he retrieve the names of females between 21-25 within his apartment complex.**
- **Was Todd behaving ethically?**
- **As Todd's manager, what would you do?**



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## Situation #2

- **Susan manages the data warehouse at a large credit union. She purchases a data feed for electronic credit reports on persons applying for loans. These reports have proven to be inaccurate in many cases. However, data services with higher accuracy are expensive. Susan decided against the better data to reduce her department's expenses.**
- **Was Susan behaving ethically?**
- **As Susan's manager, what would you do?**


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## Objectives

- **Focus is on 'Practical' Ethics**
  - ...on specific issues impacting your company
  - ...involving IT and especially BI/DW
  - It's not about academic or general business ethics
- **Awareness & sensitivity to issues**
- **Understanding the factors & variables**
- **Skills for dealing with ethical situations**
- **For people involved with..**
  - Management from the business perspective
  - Technical from the technology perspective

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# Ethics of Business Intelligence: A Practical Treatment

## Ethics is a Touchy Subject!

- **Most want to avoid the subject**
  - Stirs up controversy; causes ill will among many
- **Confusing, complex, and inconclusive**
  - Resulting in intellectual paralysis
  - Uncertain as to where it will lead - scary!
- **Myth: Dealing with ethics is always painful**
  - Surfacing the issues will be expensive & messy
- **May become a 'preachy' experience**
  - Derailed by people on a mission/cause/crusade
- **What benefit is there for our business?**
  - Is it part of normal professional conduct?
  - One can think of several Dilbert cartoons here!

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## World is Changing Rapidly

- **A lot of 'can not' things are 'can' things**
  - We are able to do more with new technology
  - ...and it is constantly changing
- **More polarization between...**
  - The company and the customer
  - The company and competitors
  - ...and so on...
- **Enron-era of corporate integrity**
  - Anxiety of being 'squeaky clean'
- **General 'trust-level' eroding**
  - Prove it, and show me

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## What is Ethics?

- **Definition**

**ethic** \ˈeth-ik\ *n* [ME *ethik*, fr. MF *ethique*, fr. L *ethice*, fr. Gk *ēthikē*, fr. *ēthikos*] **1** *pl but sing or pl in constr*: the discipline dealing with what is good and bad and with moral duty and obligation **2** **a**: a set of moral principles or values **b**: a theory or system of moral values (the present-day materialistic ~) **c** *pl but sing or pl in constr*: the principles of conduct governing an individual or a group (professional ~s)

- **Comes from the root 'ethos'**
  - Distinguishing character or guiding briefs
  - What is considered acceptable within society?
- **Good versus Bad**
- **Moral duty or obligation to society**
  - Tension between the individual and society
- **'Can' versus 'Should'**

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## Basis of Ethical Judgments

- **Religious convictions (I believe...)**
- **Golden rule (Do unto others as you...)**
  - Being honest and open
- **Common sense (logic & reasoning)**
- **Societal good (better for the majority)**
- **Materialistic goals (impact bottom-line)**
- **Popular opinion (everyone is doing it)**
- **Ignorance, indifference & apathy**

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- **Internal versus external reasons**
- **Consistency and precedence**

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## Myth: If Legal, Then Ethical

- **Legalist - "We are allowed to do..."**

	Ethical	Unethical
Legal	A	C
Illegal	D	B

- **...and then what is legal?**
  - Criminal statutes
  - Federal and state regulations
  - Commonly accepted professional practices
  - Variations among countries and regions

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## Every Ethical Judgment Can Be...

1. **Ethical - "Yes, we should do this"**
2. **Unethical - "No, we should not do this"**
3. **Amoral - "It does not matter whether..."**
  - Just an engineering design decision

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- **Ask whether...**
  - Does it have an impact on other persons?
  - Will other persons be affected by your action?
- **If 'yes', then #3 can not be an answer**

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## Should IT Professionals Be Involved?

- **Myth: Policy is set by management, and objectives are set by line-of-business**
  - IT just carries out the policies and objectives
  - BI designs star schemas and creates analytics
  - Therefore, we have no ethical issues! Right?
- **However, we understand the technology!**
  - People on the cutting edge of technology have the best view of what is possible
    - ...with ever expanding capabilities
  - Involved with outward-facing information delivery
  - Partner with business people on ethical issues

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## Professional Code of Ethics

- Every established professional association struggles with ethics
- **ACM - Assoc of Computing Machinery**
- **DPMA - Data Processing Mgt Assoc**
- **DAMA - Data Mgt Assoc Intl**
- **AIIP - Assoc of Independent Info Prof**
- **IEEE - Inst of Electrical & Electronics Eng**
- **ASIST - American Soc for Info Sci & Tech**
- **SCIP - Society for Competitive Info Prof**  
... and many more...

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## ACM Code of Ethics and Professional Conduct



- **General Moral Imperatives**
  - Contribute to society and human well-being
  - Avoid harm to others
  - Be honest and trustworthy
  - Be fair and take action not to discriminate
  - Honor property rights incl. copyrights and patent
  - Give proper credit for intellectual property
  - Respect the privacy of others
  - Honor confidentiality
- **Other sections are:**
  - More Specific Professional Responsibilities
  - Organizational Leadership Imperatives
  - Compliance with the Code

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## SCIP Code of Ethics



- To continually strive to increase the recognition and respect of the profession
- To comply with all applicable laws, domestic and international
- To accurately disclose all relevant information, including one's identity and organization, prior to all interviews
- To fully respect all requests for confidentiality of information
- To avoid conflicts of interest in fulfilling one's duties.
- To provide honest and realistic recommendations and conclusions in the execution of one's duties
- To promote this code of ethics within one's company, with third-party contractors and within the entire profession
- To faithfully adhere to and abide by one's company policies, objectives, and guidelines

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<http://www.scip.org/ci/ethics.asp>

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## Key Ethical Issues in IT - PAPA

- **P**rivacy
- **A**ccuracy
- **P**roperty
- **A**ccessibility



Ref: Richard Mason, Four Ethical Issues of the Information Age, Management Information Systems Quarterly, Volume 10, Number 1, March, 1986

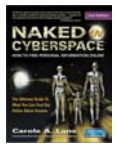
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## Privacy

- **CRM: making life better for customers**
  - Less privacy means better service
  - For example, my experience with Amazon.com
- **Scott McNealy of Sun remarked in 1999:**
  - "You have zero privacy anyway; get over it!"
  - ID Cards: "Audit trails deter lots of criminal activity"
- **Naked in Cyberspace** (by Carole Lane)
  - Right to know versus right to privacy
- **Personal Identifiable Data (PID)**
  - Not as obvious as you would expect
  - Date-of-birth + zip-code = YOU



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## Privacy (continued)

- **Elements of a Privacy Policy**
  - Notice about how the data is used
  - Choice to opt-in and to opt-out
  - Security to protect from unauthorized use
  - Access to one's data to review & correct
  - Enforcement of these policies
- **Security: the flip side of privacy**
  - Inadequate security may imply negligence
  - Adequate security is a moving target

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## Accuracy

- **Accuracy is costly**
  - Adequate accuracy is a decision!
- **Who is responsible for...**
  - Accuracy of data
  - Integration of data fragmentation
  - Reliability of the analytics
  - Integrity of the systems
- **And, who will be held accountable?**
  - Legal liability versus ethical liability

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## Property

- **Information as property**
  - Whose data is it anyway?
  - Ownership and rights
  - Who Owns Information? (by Anne Branscomb)
  - Name & address, phone, medical history, image, email, govt data...
- **Intellectual property**
  - Trademarks, copyright, patents...



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## Accessibility


- **The Digital Divide**
  - Information is power
  - Those who control access have power
- **Citizens in an Information Society**
  - Skills to understand and manage information
  - Tools to enable this understanding
  - Access to the information itself
- **BI Haves and Have-Nots**
  - Among units within the enterprise
  - Among business partners
  - With your competitors
  - With your customers

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## Hot Ethical Issues in BI/DW

- **Identity Thief**
  - BIG concern among middle class & elderly
- **Financial Accountability**
- **Homeland Security**
  - Total Information Awareness initiative
- **HIPAA for the Healthcare Industry**
- **US Patriot Act of October 2001**
  - Reporting detailed financial activities & relations
  - Required to analyze 'normal' from 'suspicious'
- **CAPPS II (Computer-Assisted Passenger Prescreening System)**
  - Rating each person's risk potential 

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## Practical Steps with Ethical Issues

1. **Awareness/Recognition**
  - Make the issue 'official'. Give it a name...
  - Define clearly the boundaries and objectives
2. **Research/Understanding**
  - Gather the facts; identify the variables
  - Ignorance is not an excuse!
3. **Judgment/Decision**
  - Decide what is and is not ethical for company
4. **Resolution (of an incident)**
  - Finding the proper balance; learning from it

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# Ethics of Business Intelligence: A Practical Treatment

## Some Suggestions

- **Preparation is the key!**
- **Be open and honest about the issues**
  - Avoiding issues always magnifies the problem
- **Make ethical discussions acceptable**
  - Within your group and throughout your company
  - No correct answers or right opinions
  - It is 'good business' to do so
- **Make these discussions 'professional'**
  - Provide guidelines for ethical discussions
  - Purpose is to better the company
  - Avoid the personal crusades (not on company time)
  - Surface the basis for the *should's*

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## Some More Suggestions

- **Stay focused**
  - Only deal with issues that relate to the company
  - Do not attempt to solve the greater issues
  - If individuals must pursue the greater issues, they should do that on their personal time
- **Seek qualified legal advice**
  - This may be difficult and expensive
  - Do not expect a YES-NO answer
  - Do not let it dominate the ethical discussion
- **Plan for an effective corporate initiative**
  - But avoid the Dilbert syndrome...

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## Resources for IT Ethics

- **Check out... [www.bolder.com/ethics](http://www.bolder.com/ethics)**
  - Listing of Code of Ethics by professional assoc.
  - Pointers to literature
  - Links to non-profit ethics groups
  - Links for specific issues
- **Submit your ethical dilemmas**
  - Help to focus and evolve this material
  - To... [ethics@bolder.com](mailto:ethics@bolder.com)
  - Describe anonymously in a short paragraph

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## Toward a Regular TDWI Course

- **In a half-day course, we would...**
  - Focus more on BI/DW issues within corporate IT
  - Expand the PAPA material
    - More balance with non-privacy issues
  - Expand the Hot BI Ethical Issues section
  - Incorporate current events (e.g., CW headlines)
- **In a full-day course, we would do the above, plus...**
  - Incorporate lots of mini-cases
  - Plan/discuss corporate initiatives
- **We would conduct a half-day course for several times, reevaluate, and maybe expand to full-day**

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## Feedback, please!

- **Are we on the right track?**
- **Is this material useful to you? Be honest!**
- **Should this subject be a regular course?**
  - Length, topics, methods, etc.?
- **Do you have ethical dilemmas to share?**

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