

Risk and Reward in the Information Society

Communication

Communication

- ▶ Section 1: Presenting and writing (Briefly)
- ▶ Section 2: Logical argument
- ▶ Section 3: Dealing with people

Resources for Communication

- CS people (tech people) have a reputation for poor communication skills
- All of us can improve our language skills
 - ▶ Written (and read)
 - ▶ Spoken
 - ▶ Slides

Powerpoint

Together we can bring order to galaxy

If you only knew the power of the Dark Side

- Force is with you — but you are not Jedi yet
- Join me and I will complete you
- You can destroy the Emperor (*- It is your destiny*)
- I am your father
 - Search your feelings. You
- Together we shall rule the galaxy
- Come with me. It is the only way
- It is your destiny!

For more info visit my webpage at www.yourdomain.com

Best practices

- Dark background in dark rooms, light background in light rooms
- LARGE Sans-serif font
- Update diagrams for presentations
 - ▶ Diagrams from paper have text which is too small
- point form means point form
- Audience relevance
 - ▶ e.g. equations if you explain them

Document Preparation

- Style manuals
 - ▶ Chicago
 - ▶ APA (American Psychological Association)
 - Standard for science writing
- Classic style manuals
 - ▶ Strunk, Fowler
- *Prescriptive* versus *Descriptive*
 - ▶ (will be a theme for the course)

Prescriptive and Descriptive

- Prescriptive Rule (“should”)
 - ▶ Dictates behaviour, establishes norms
 - ▶ “People drive on the right hand side of the road”
- Descriptive Rule (“is”)
 - ▶ Describes behaviour, observes norms
 - ▶ “People drive 10% above the speed limit”
- Language tends to move from descriptive to prescriptive
 - ▶ Spelling is prescriptive (established, right or wrong)
 - ▶ Grammar is both (and changes over time):
 - *This is how people write vs. this is how you should write to be most clearly understood.*

Use Proper English

- Languages evolve
- Online discourse is increasingly casual
- Professional discourse must be professional
 - ▶ If you are unprofessional, you likely won't be criticized or called out, but you won't be taken seriously.
- Avoiding ambiguity in language is an important consequence of using proper English (more examples later)

Document Software

- Microsoft Word
 - ▶ DeFacto standard, ubiquitous
 - ▶ overstuffed, difficult, error-prone
- Open Office: Open source alternative
 - ▶ (more on open source later)
- Google Docs: Cloud Computing
 - ▶ (more on cloud computing later)
- LaTeX: standard for academic discourse. Worth learning.
 - ▶ Equations, figures, citations are *much* easier

LaTeX example

\today is the day I start learning \LaTeX.

%This is a comment

```
\begin{equation}
```

```
\lim_{h\rightarrow 0^+}
```

```
\sum_{n=0}^\infty
```

```
\frac{t^n}{n!}
```

```
\frac{\Delta_h^n f(a)}{h^n}=f(a+t)
```

```
\label{this}
```

```
\end{equation}
```

Equation \ref{this} shows how LaTeX handles references

LaTeX example

January 15, 2011 is the day I start learning
L^AT_EX.

$$\lim_{h \rightarrow 0^+} \sum_{n=0}^{\infty} \frac{t^n}{n!} \frac{\Delta_h^n f(a)}{h^n} = f(a+t) \quad (1)$$

Equation 1 shows how LaTeX handles references

Bibtex example citation: re-formatting

Further, Pattern recognition has become a booming business \cite{DuHa}.

```
\bibliographystyle{splncs}  
% or \bibliographystyle{alpha}
```

```
\bibliography{BNG}
```

Further, Pattern recognition has become a booming business [6].

References

1. Billings, D., Davidson, A., Schaeffer, J., Szafron, D.: The challenge of poker. *Artificial Intelligence* **134**(1–2) (2002) 201–240
2. Billings, D., Burch, N., Davidson, A., Holte, R., Schaeffer, J., Schauenberg, T., Szafron, D.: Approximating game theoretic optimal strategies for full-scale poker. In: International Joint Conference on Artificial Intelligence. (August 2003) 661–668
3. Blank, T., Soh, L.K., Scott, S.: Creating an svm to play strong poker. In: International Conference on Machine Learning and Applications. (December 2004) 150–155
4. Southey, F., Bowling, M., Larson, B., Piccione, C., Burch, N., Billings, D., Rayner, C.: Bayes' bluff: Opponent modelling in poker. In: Twenty-First Conference on Uncertainty in Artificial Intelligence. (July 2005) 550–558
5. Oliehoek, F.A., Vlassis, N., de Jong, E.D.: Coevolutionary nash in poker games. In: 17th Belgian-Dutch Conference on Artificial Intelligence. (October 2005) 188–193
6. Duda, R.O., Hart, P.E., Stork, D.G.: *Pattern Classification*. Wiley Interscience (2000)

Further, Pattern recognition has become a booming business [DHS00].

References

- [BBD⁺03] D. Billings, N. Burch, A. Davidson, R. Holte, J. Schaeffer, T. Schauenberg, and D. Szafron. Approximating game theoretic optimal strategies for full-scale poker. In *International Joint Conference on Artificial Intelligence*, pages 661–668, August 2003.
- [BDSS02] D. Billings, A. Davidson, J. Schaeffer, and D. Szafron. The challenge of poker. *Artificial Intelligence*, 134(1–2):201–240, 2002.
- [BSS04] T. Blank, Leen-Kiat Soh, and S. Scott. Creating an svm to play strong poker. In *International Conference on Machine Learning and Applications*, pages 150–155, December 2004.
- [DHS00] R. O. Duda, P. E. Hart, and D. G. Stork. *Pattern Classification*. Wiley Interscience, 2000.
- [SBL⁺05] F. Southey, M. Bowling, B. Larson, C. Piccione, N. Burch, D. Billings, and C. Rayner. Bayes’ bluff: Opponent modelling in poker. In *Twenty-First Conference on Uncertainty in Artificial Intelligence*, pages 550–558, July 2005.

Part 2: Argument

- Logical fallacies
 - ▶ How to argue
- Numbers, Visuals and Statistics
 - ▶ How to lie
- Persuasion and deception
 - ▶ How to win

Logical Fallacies

- “An error of argumentation that renders a conclusion invalid”
 - ▶ Formal: Bad structure, statements may be true
 - ▶ Informal: Bad statements. structure may be OK
- Intentionality
- ***Does not mean conclusion is false***
 - ▶ Means the argument is irrelevant to the conclusion.

Three Fallacy types

- ***Relevance***
 - ▶ Statements irrelevant to conclusion
 - ▶ Non sequitur: *it does not follow*
- ***Ambiguity***
 - ▶ Language interpreted in differently
- ***Presumption***
 - ▶ Statements are factually incorrect

Relevance

- **Ad Hominem** (against the person)
 - ▶ you're stupid / young / Irish so you're wrong
- **False or Weak Analogy**
 - ▶ The universe is complex, like a watch, so it must have been invented in Switzerland
- **Composition and division**
 - ▶ Rip this \$100 bill in half to give us \$50 each

Relevance

- **Gambler's fallacy**
 - ▶ I've been loosing all night. I'm due to win
- **Moralistic / Naturalistic**
 - ▶ is this way → / ← should be this way
 - ▶ (prescriptive versus descriptive)
- **Red herring (distraction)**
 - ▶ I know his tax plan is bad but look at his shoes!

Relevance: Appeals

- Authority
 - ▶ the prof said so
- Consequences
 - ▶ what if you're wrong?
- Force
 - ▶ say I'm right or I'll thwack you
- Novelty / Antiquity (tradition)
 - ▶ it's new / old so it must be good

Relevance: Appeals

- Pity / Emotion
 - ▶ it's so horrible it can't be true
- Popularity
 - ▶ 10,000 smokers can't be wrong
- Wealth / poverty
 - ▶ Rich people believe it so it's right/wrong

Fallacies of Ambiguity (interpretation of language)

- Emphasis (or accent)
 - ▶ Depends on how you say it
 - Yes, I can imagine that.
 - Yes, I can *imagine* that.
- how disambiguate using emphasis, on forums etc?
 - ▶ Emoticons, internet slang
 - :) _(`)_/ lol, smh, wtf, ymmv, fwiw, ianal
 - ▶ importance of non-linguistic cues

Ambiguity

- **Equivocation**
 - ▶ word/phrase with multiple meanings
 - e.g. a sandwich is better than eternal happiness
 - ▶ Common in jokes and headlines
 - "British Left Waffles on Falklands"
 - ▶ Evolution is just a theory. So is gravity.

Ambiguity

- Straw Man
 - ▶ Argue against a re-statement of an opponent's position instead of the original argument
 - ▶ "Senator Jones says that we should not fund the attack submarine program. I can't understand why he wants to leave us defenceless like that."
- This is the central technique of online conversation
 - Choose a tweet that shows the most extreme version of your opponent's argument, and claim it represents your opponent directly.

Fallacies of Presumption (statements or arguments incorrect)

- **Affirming the consequent**
 - ▶ If you were cheating on me, you'd be out of the house a lot. You are out of the house a lot, so you must be cheating on me.
- **Ignorance**
 - ▶ No-one can prove that there isn't life after death, therefore there is.
 - ▶ There's no evidence one way or the other, so the odds are 50/50

Presumption

- Beg the question (circular logic)
 - ▶ This restaurant serves the best food in the town, because it has the best chef.
 - ▶ It has attracted the best chef because it has the best reputation.
 - ▶ It has the best reputation because the chef cooks the best food.

Presumption

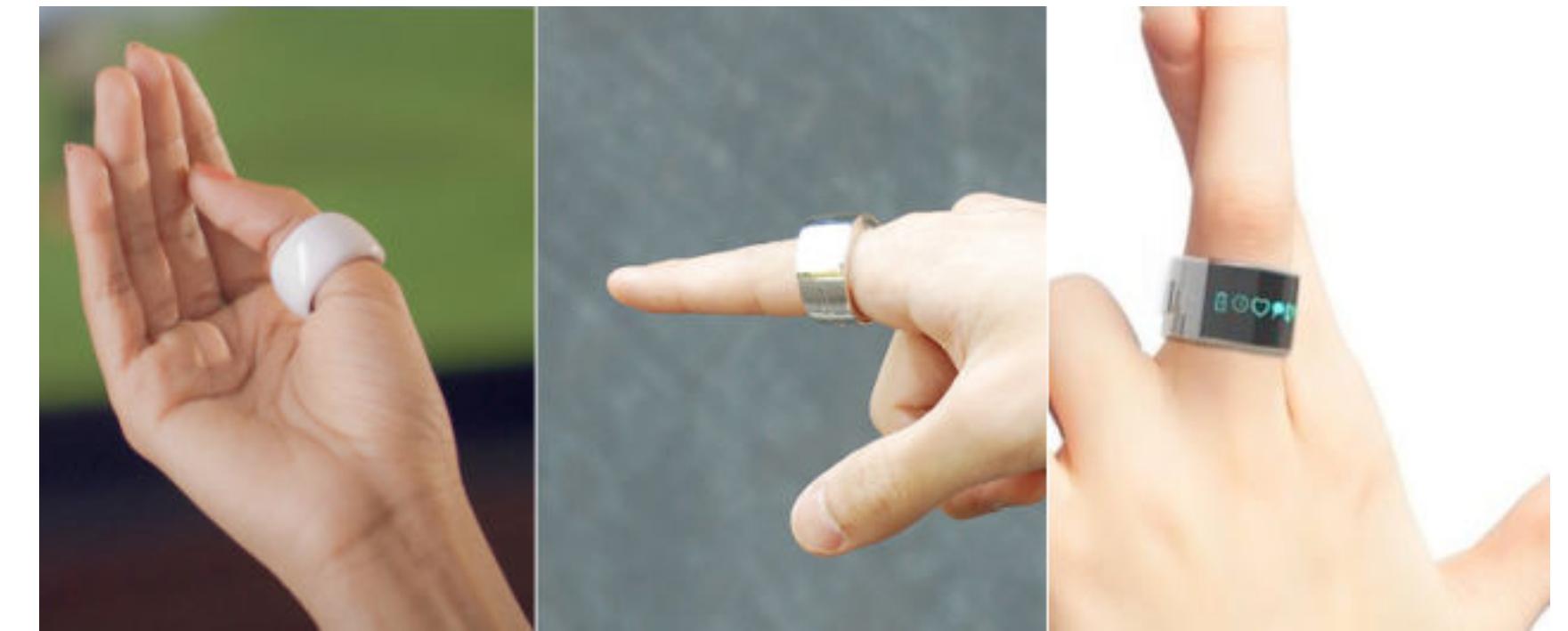
- **Causality**
 - ▶ Cum Hoc: These things happened together, so one must cause the other
 - ▶ Post Hoc: This happened after than so that caused this
- **False dilemma / false dichotomy**
 - ▶ Either you're a liar or a cheat. Which is it?

Some more arguments (Relevance? Ambiguity? Presumption?)

- **Ad Hitlerum**
 - ▶ You like dogs? you know, Hitler owned a dog....
 - ▶ Also Godwin's Law; calling feminists “feminazis”
 - ▶ Less funny now that there are actual nazis about...
- **Poisoning the well**
 - ▶ Now this guy's kind of a jerk, and he's known to beat small dogs with a stick, but let's hear what he has to say
 - ▶ “lets hear more of this **so-called** 'theory' of evolution”

Aside: poisoning the well, tech style

- Race to be “first to market”
- Emergent tech is difficult
- First to market is often rushed and unpolished
- First experiences by influential technophiles may be sub-par
- This experience can “poision the well” for the tech in general
 - ▶ Smart rings, google glass. Other examples?



Win arguments with fallacies

- Many fallacies are used intentionally to win arguments, appealing to the fears and emotions of the audience
- e.g. *Gish Gallop*: to overwhelm your opponent with a stream of small lies
 - ▶ Your opponent will be stuck correcting everything instead of making their own points
 - ◉ Far easier to make a false claim than to correct one
 - ▶ Your opponent will look mean-spirited, and will miss correcting some lies
 - ▶ <https://johntreed.com/blogs/john-t-reed-s-news-blog/60887299-intellectually-honest-and-intellectually-dishonest-debate-tactics>

Sound Familiar?



- What else does he do to “win” arguments?

Cognitive Biases

- Fallacies in argument occur when one person tries to convince another person using faulty reasoning
 - Either maliciously or accidentally
 - *Hanlon's Razor*: “Never attribute to malice that which is adequately explained by stupidity”
- Cognitive Bias, however, occurs when convincing *yourself*.
 - ▶ Much more insidious, difficult to counter
 - ▶ Human psychology, can be applied to HCI as well

Example: Organic Food

- <http://www.berkeleywellness.com/healthy-eating/nutrition/article/organic-health-halo>
- Perceived health halo effect of organic food
- People were offered cookies, chips labeled as normal or organic
- Subjects thought “organic” were lower in calories and fat, higher in fiber.
 - ▶ People think things virtuous in one regard are virtuous in other regards

Cognitive Biases (youarenotsosmart.com)

- Large and complex list.
 - ▶ Challenge yourself to identify cognitive biases in yourself.
 - ▶ Identifying biases in others may not help change their mind

Confirmation Bias (the big one)

- To validate our ideas, we tend to seek out confirmation instead of refutation.
- We surround ourselves with people and media that agree with our beliefs, insulating ourselves against disagreement.
- *“Thanks to Google, we can instantly seek out support for the most bizarre idea imaginable. If our initial search fails to turn up the results we want, we don’t give it a second thought, rather we just try out a different query and search again.” – Justin Owings*

Confirmation bias: example. (Stephen Pinker)

- There are set of cards with a number on one side and a letter on the other
- Proposed rule: *If a card has a D on one side, there is a 3 on the other.*
- What is the smallest number of cards to turn over to verify the rule:

D

F

3

7

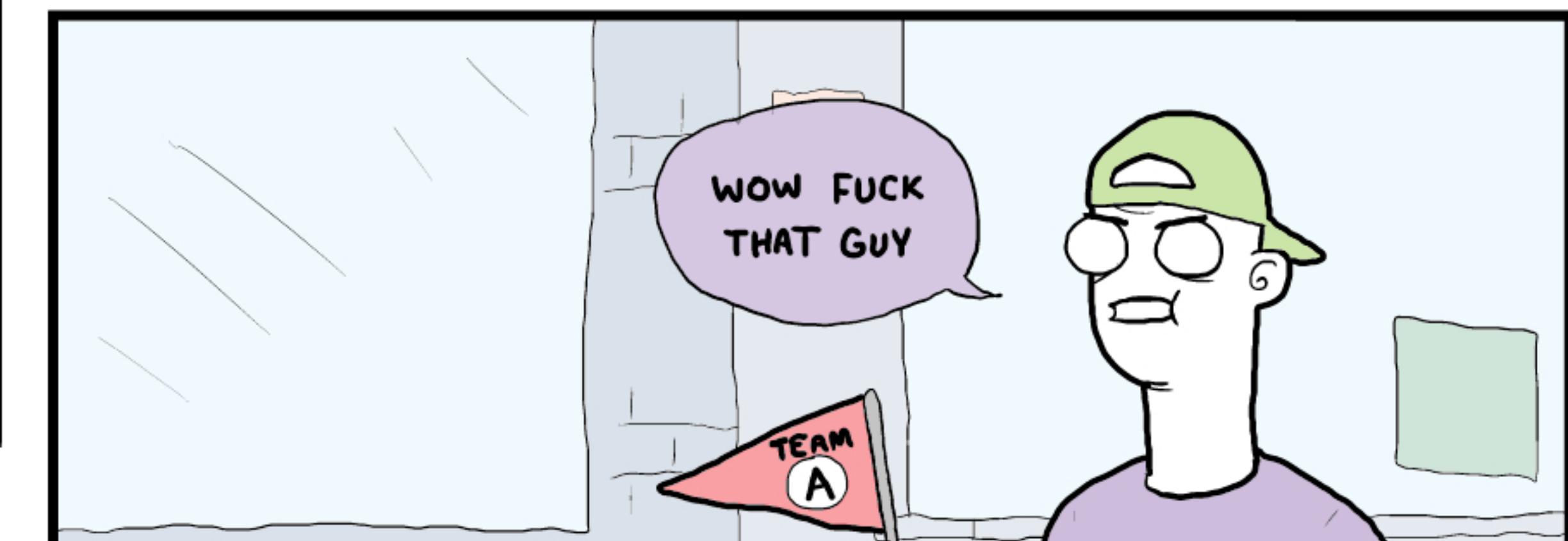
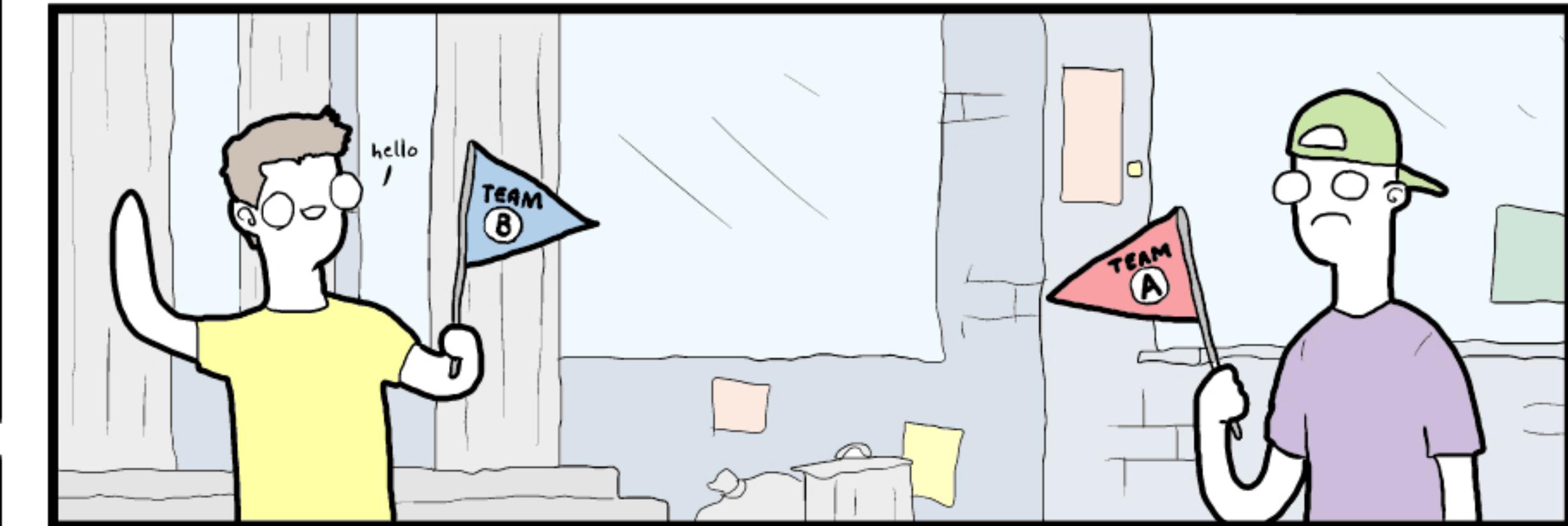
Confirmation Bias and Content (Stephen Pinker)

- It is illegal to drink if you are under 19.
- You are bouncer. Which of these four people do you check?
 - ▶ drinking beer - check age?
 - ▶ drinking coke - check age?
 - ▶ under 19 - check drink?
 - ▶ over 19 - check drink?

Biases about groups

- **Asymmetric Insight error**
 - ▶ I know more about you than you know about me
- **Fundamental attribution error**
 - Other people respond to psychological triggers, but not me.
 - Also: advertising is warping the minds of our children, but it doesn't have an effect on me.
- **Group attribution error**
 - ▶ If you're a conservative, you must believe everything my conservative uncle believes.

Tribalism



EXTRA FABULOUS COMICS

ZAF

Economic cognitive biases

- **Sunk Cost**
 - ▶ I'd better keep fixing this old car - I've already put so much money into it
 - ▶ I'd better keep playing this game - I've put so much time into it already
- **post-purchase rationalization**
 - ▶ I love this thing I bought. Even if it sucks
- **Loss Aversion**
 - ▶ It's better to not lose \$5 I have than to gain \$5 I don't have

More cognitive biases

- **Anchoring:** The first information you get is weighted more strongly than subsequent information
- **Survivorship bias:** Study the successful to emulate them
 - ▶ many unsuccessful ventures use the same techniques
 - ▶ Better to compare the successful and unsuccessful.
- **Dunning-Kruger effect:** The tendency for unskilled individuals to overestimate their own ability and the tendency for experts to underestimate their own ability
- **Bias Blind Spot:** I am less biased than everyone else

Backfire Effect

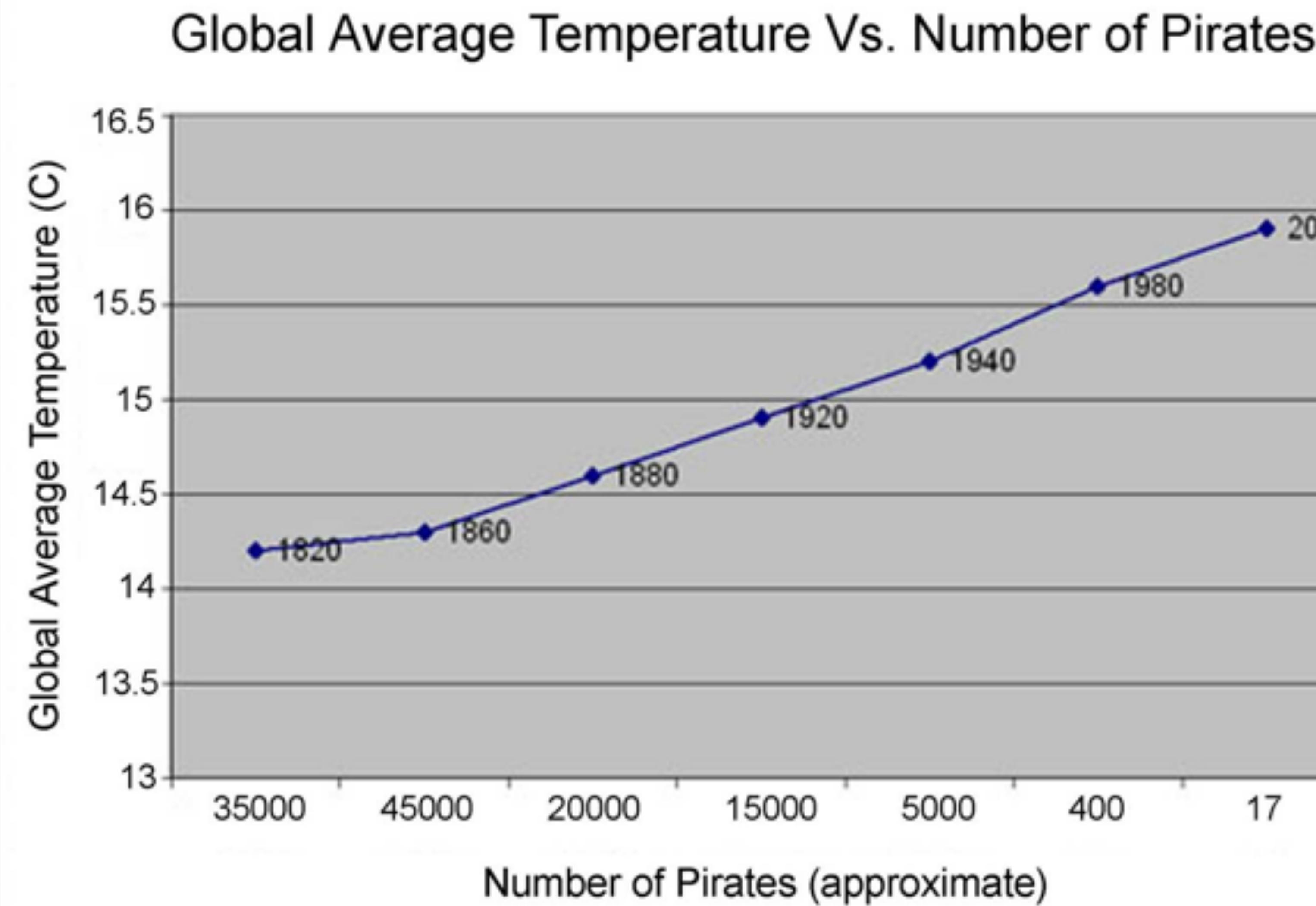
- When your beliefs are challenged by facts and figures, you tend *NOT* to change your beliefs, rather, you dig in your heels and believe more strongly.
 - ▶ Often by inventing reasons that your challengers are wrong/evil
 - ▶ Often with additional logical fallacies or cognitive biases
- This one is really problematic today

Statistics

(see also "how to lie with statistics")

- “The average computer scientist makes \$55,437 in his first year”
 - ▶ where does the number come from? by asking people?
 - people lie, especially about income
 - ▶ Number is too specific
 - 65.34% of all statistics are fabrications
 - ▶ Which “average” is used?
 - Mean? Median? Mode?

STOP GLOBAL WARMING: BECOME A PIRATE



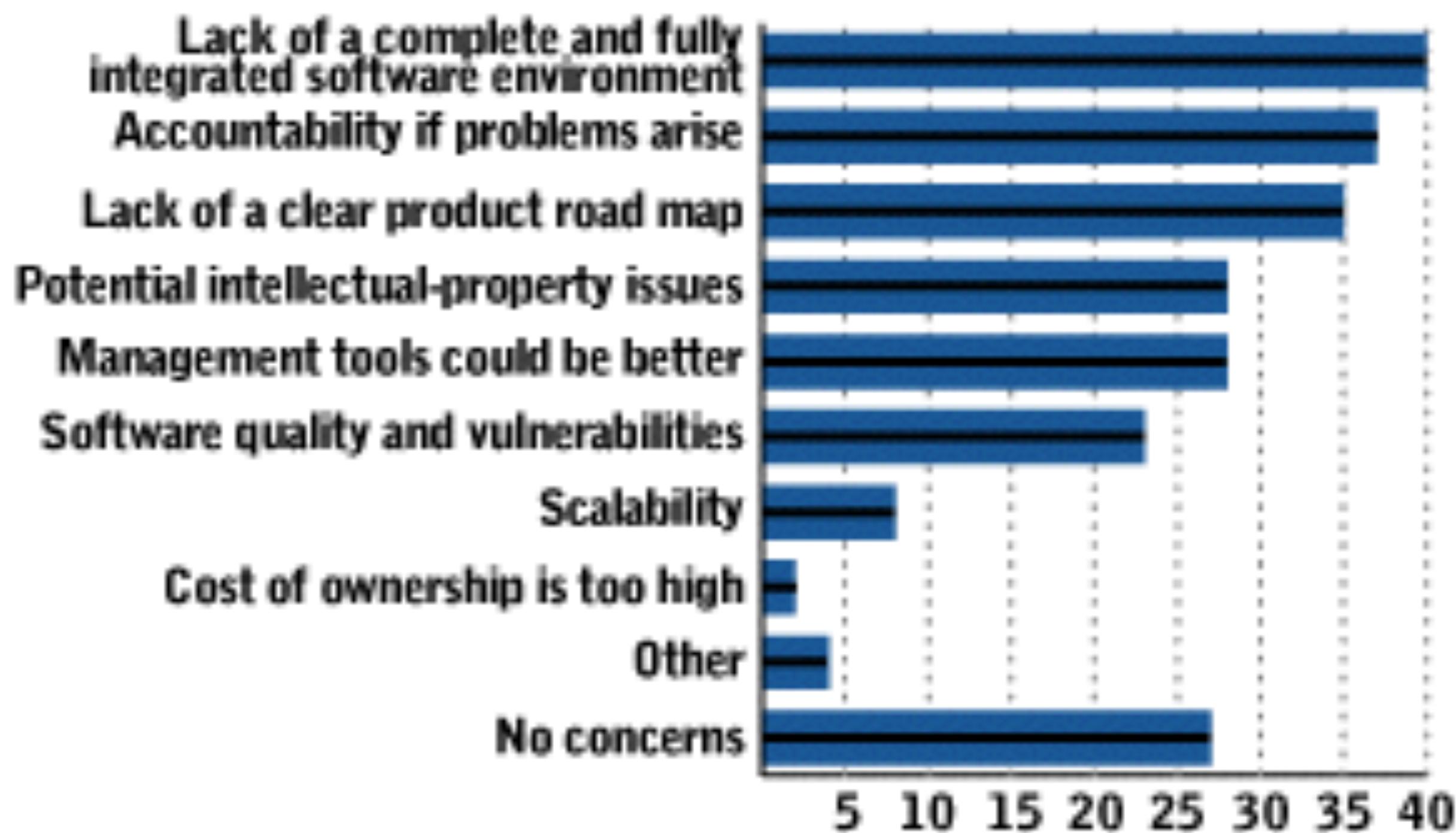
Charts and Graphs

- Immediate interpretation depends on perceptual assumptions
 - ▶ optical illusions
 - ▶ “innate physics”
 - ▶ gestalt perception
- Good visuals should try to **defeat** these assumptions, not play on them

Scale and comparison

Linux Concerns

Which of the following are concerns that your company has about the Linux open-source software environment?



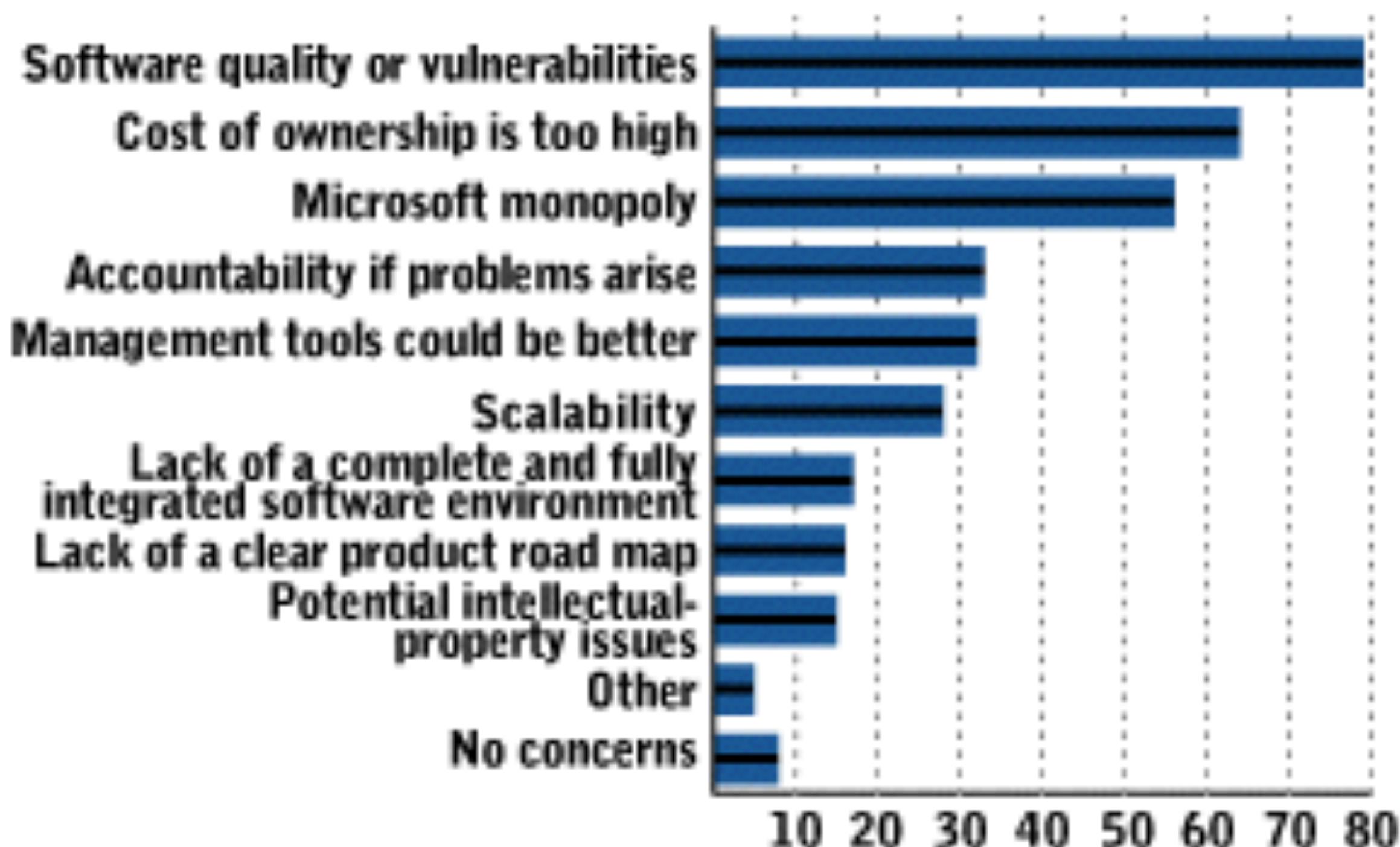
Note: Multiple responses allowed.

% of respondents

Data: InformationWeek Research's Windows Interoperability 2003 survey of 400 business-technology professionals

Windows Worries

Which of the following are concerns that your company has about the Microsoft software environment?



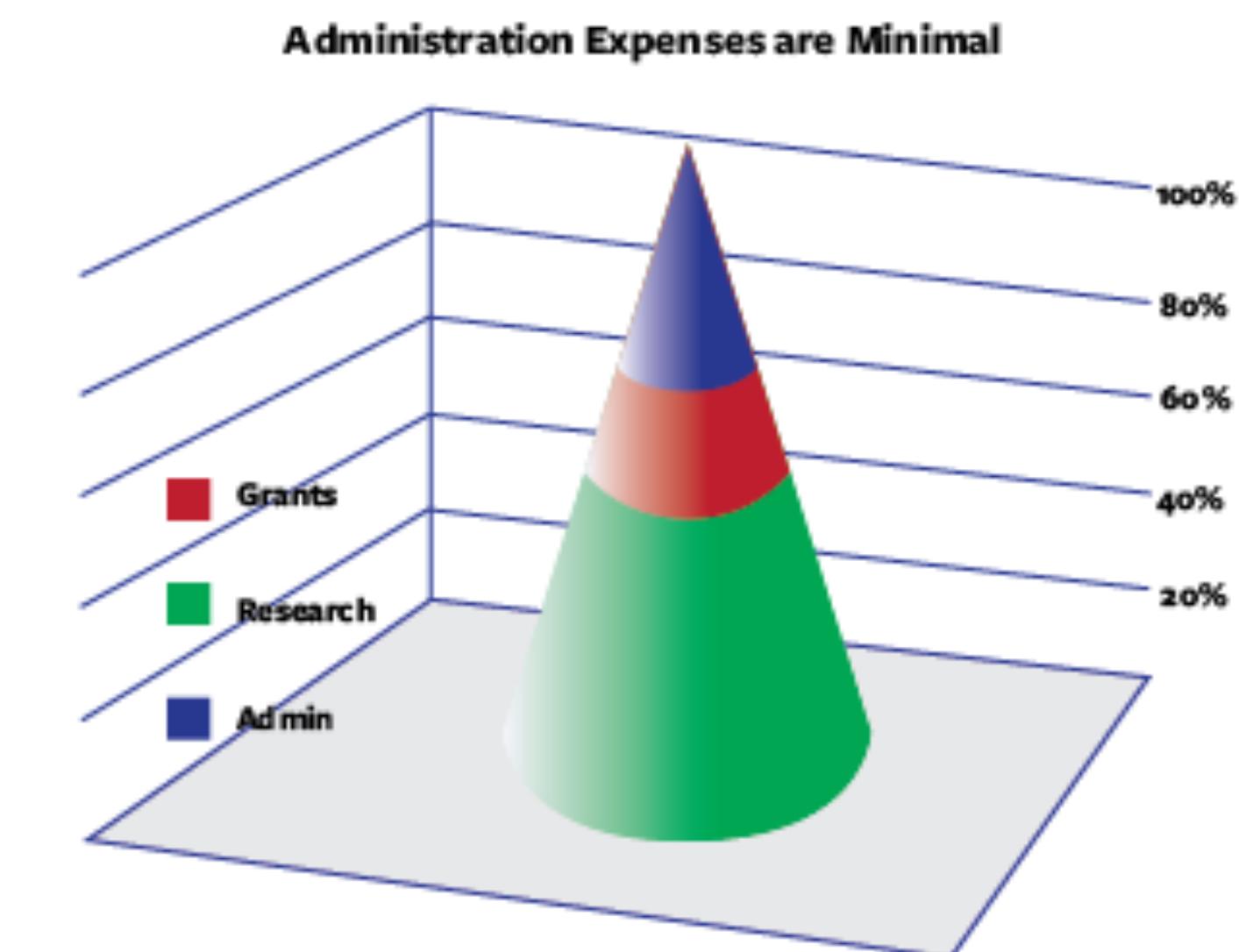
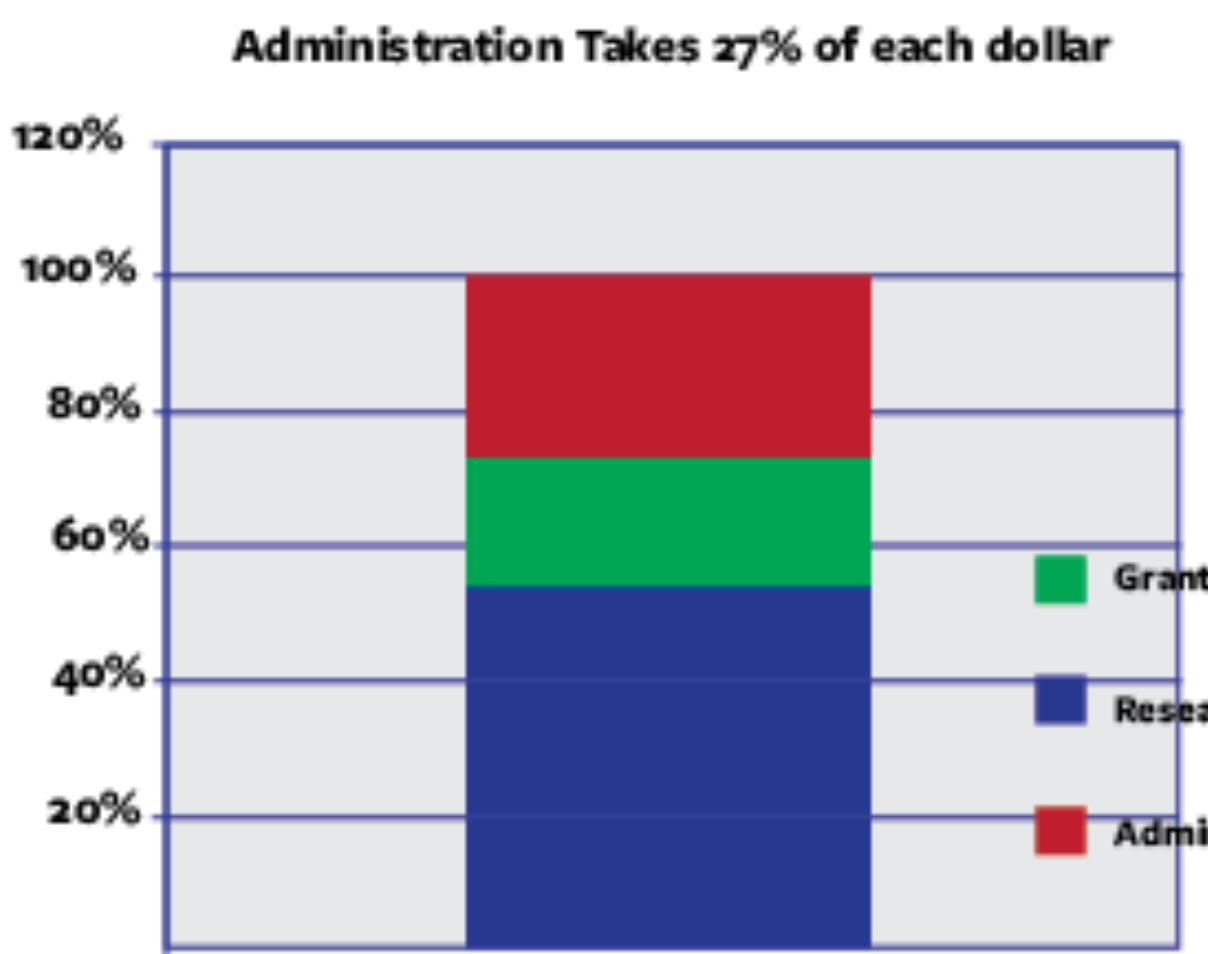
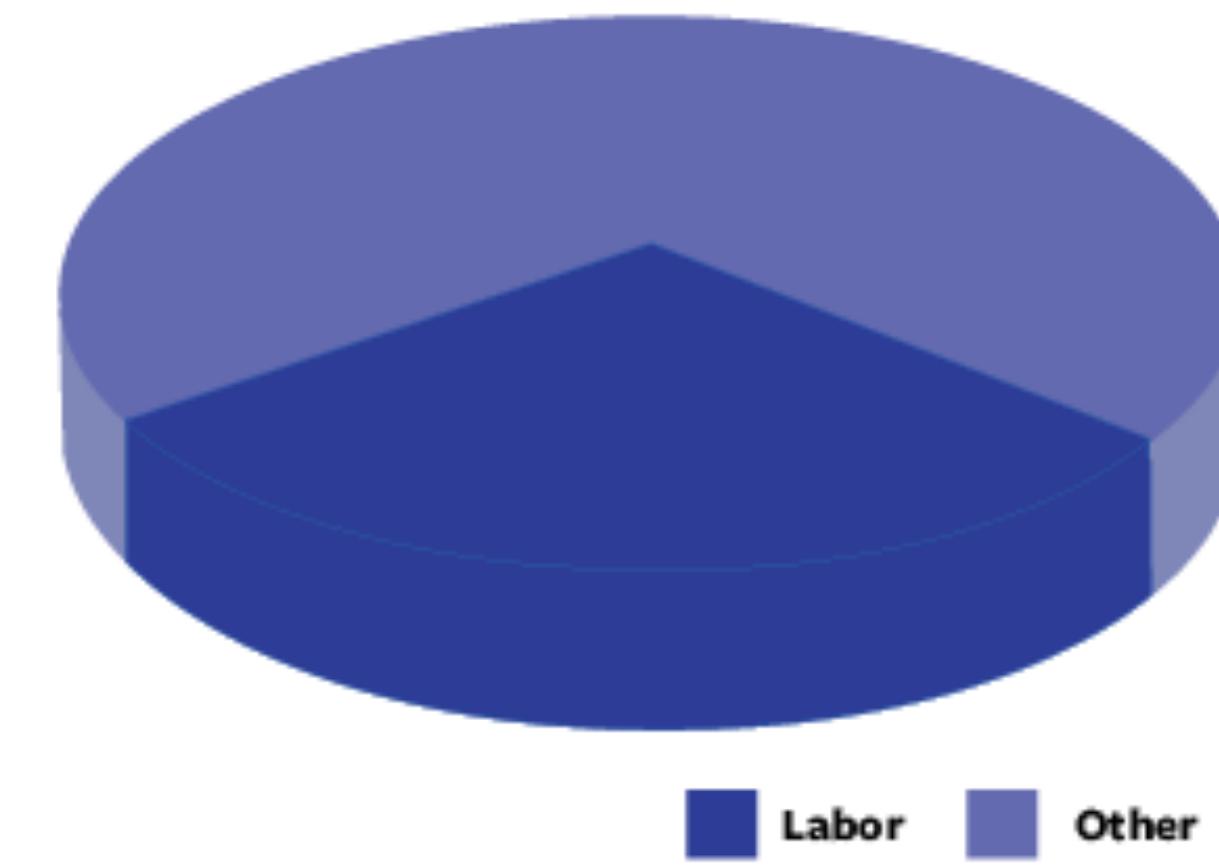
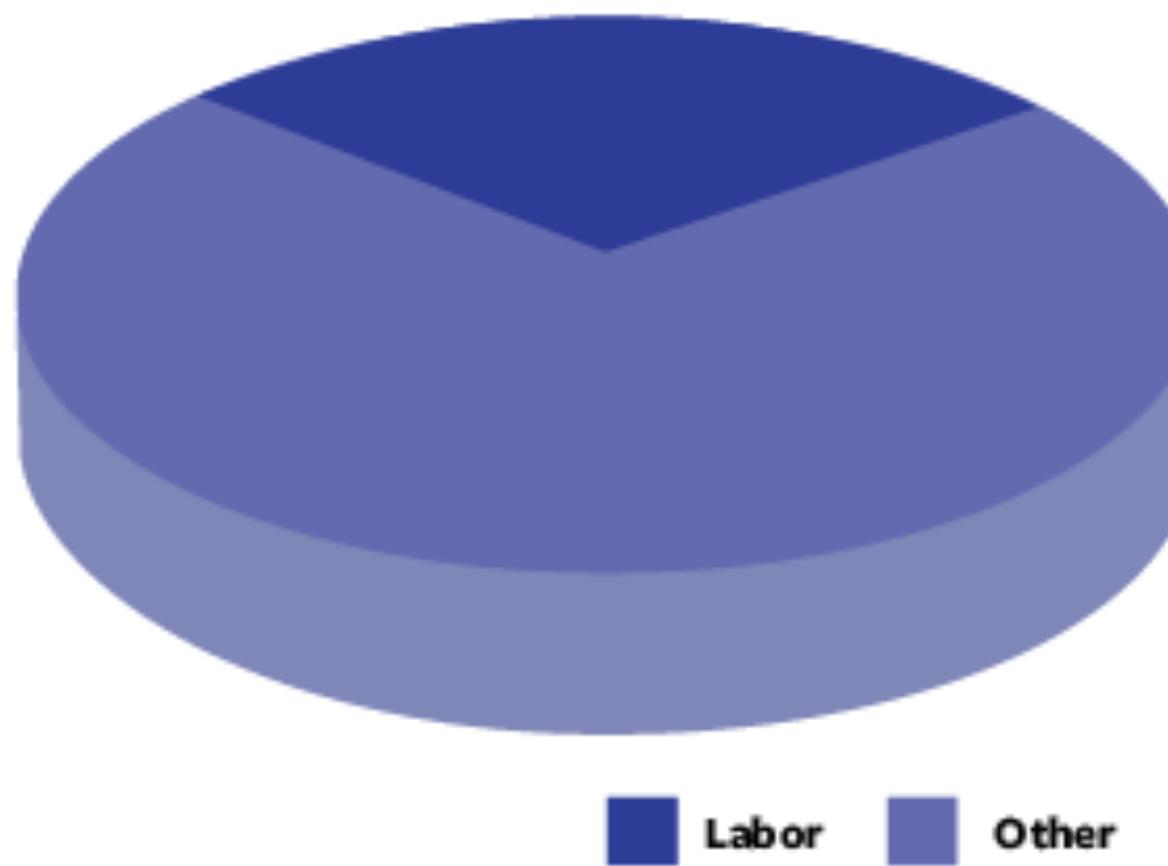
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% of respondents

Data: InformationWeek Research's Windows Interoperability 2003 survey of 400 business-technology professionals

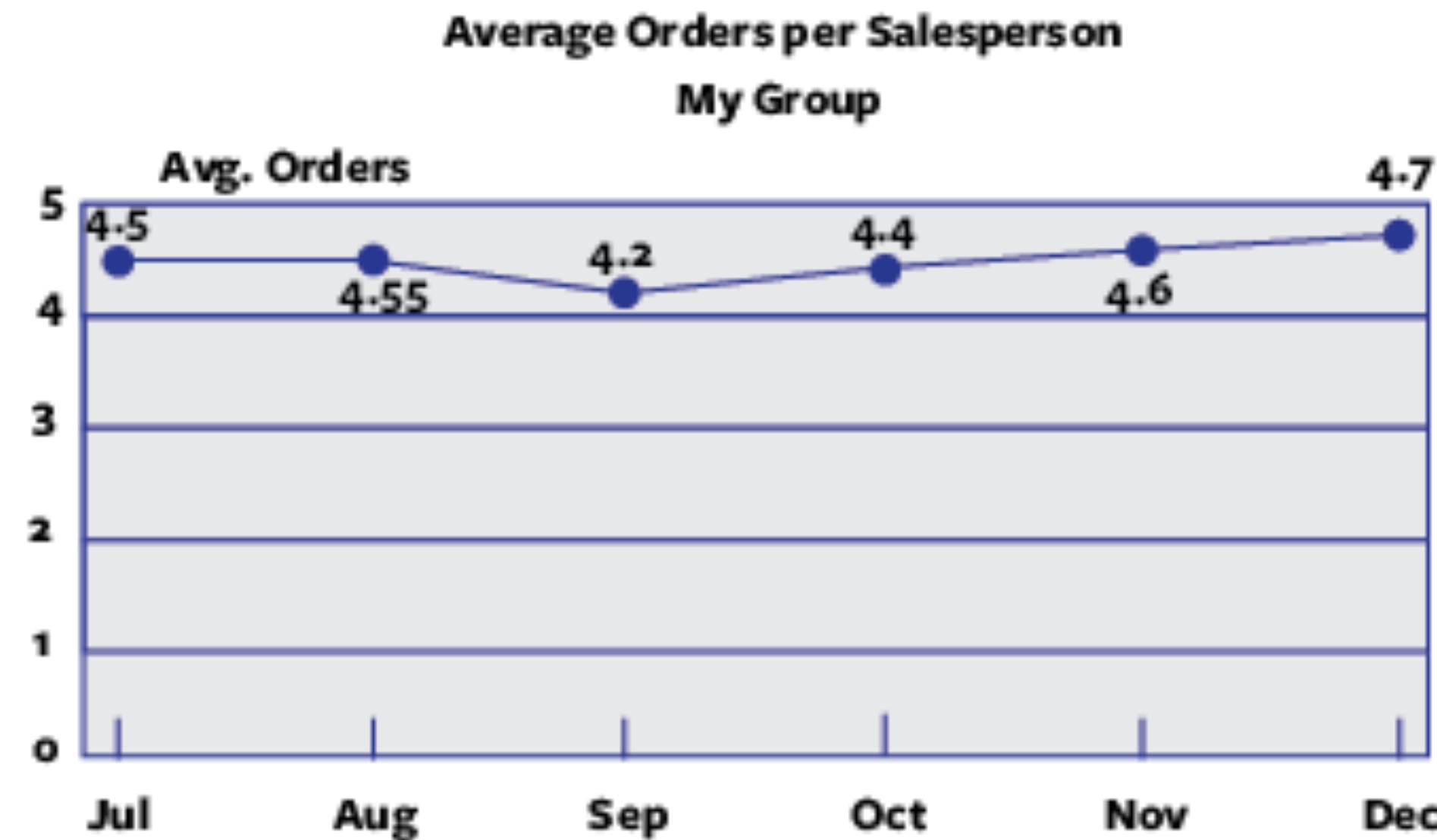
Misleading use of 3d

- <http://nautil.us/issue/19/illusions/five-ways-to-lie-with-charts>



Scale starts at zero

- <http://nautil.us/issue/19/illusions/five-ways-to-lie-with-charts>



Other ways to lie with numbers or pictures?

Section 3: People

- Quick intro, whole courses / programs on this stuff
 - ▶ (called “psychology”)
- Theme 1: Personality Conflicts
- Theme 2: Stakeholders

Personality conflicts

- working in groups, with clients, family etc
 - ▶ *people are idiots, why isn't everyone as smart as me?*
 - ▶ Identifying cognitive biases won't usually help.
- Personality profiles, type indicators
 - ▶ Overt goal: what kind of person am I
 - *Significant flaws in most type indicators*
 - ▶ Useful goal: what types of people are there? What type of are you, here, now? What might you do next? How can I help / motivate / empower / persuade you?

Personality and Behaviour

- If you can recognize the characteristics of behaviour, you can predict the responses to certain stimuli
- You are not classifying the person (people change, type indicators are flawed etc) you are classifying the behaviour

Myers-Briggs type indicator

- Extraversion --- Introversion 49% E / 51% I
 - ▶ interactions: **people(E) vs. self(I)**
- Sensing --- iNtuition 73% S / 27% N
 - ▶ information: **data(S) vs. gut(N)**
- Thinking --- Feeling 40% T / 60% F
 - ▶ decisions: **logic(T) or emotion(F)**
- Judging --- Perceiving 54% J / 46% P
 - ▶ doing: **planned(J) or spontaneous(P)**
- 16 types



ARAGORN

THE GUARDIAN

ISTJ

PRACTICAL, DUTIFUL, LOGICAL, LOYAL, RESERVED, ORDERLY, REALISTIC, CALM, ORGANIZED, ANALYTICAL, CONCRETE, STEADFAST, RELIABLE, REASONABLE, SENSIBLE, FACTUAL, CONSISTENT, THOROUGH, TRADITIONAL, FOCUSED, DEPENDABLE, OBJECTIVE, CAREFUL, HONEST, FINISHER, OBSERVER



SAMWISE

THE PROTECTOR

ISFJ

DUTIFUL, SUPPORTIVE, GENTLE, PRACTICAL, KIND, METICULOUS, CAUTIOUS, FRIENDLY, THOUGHTFUL, PATIENT, REALISTIC, COMMITTED, CONSCIENTIOUS, CONCRETE, DEVOTED, RESPONSIBLE, DILIGENT, CONSIDERATE, DETAILED, SENSITIVE, DEPENDABLE, TRADITIONAL, ORGANIZED, COOPERATIVE, LOYAL



GALADRIEL

THE COUNSELOR

INFJ

DEVOTED, INNOVATIVE, INDIVIDUALISTIC, LOYAL, COMPASSIONATE, DEEP, HARMONIOUS, CONCEPTUAL, RESERVED, WARM, VISIONARY, INTENSE, CREATIVE, INSIGHTFUL, SENSITIVE, DETERMINED, COMMITTED, PRIVATE, MOTIVATOR, EMPATHETIC, HOLISTIC, IMAGINATIVE, ORIGINAL, DELIBERATE, INDEPENDENT



ELROND

THE STRATEGIST

INTJ

AUTONOMOUS, ALOOF, IMAGINATIVE, INNOVATIVE, INDEPENDENT, ORIGINAL, FIRM, CAUTIOUS, RESERVED, ANALYTICAL, LOGICAL, ORGANIZED, DEFINITIVE, DELIBERATE, PURPOSEFUL, RATIONAL, SYSTEMATIC, PLANNER, VISIONARY, CONCISE, CALM, CONSISTENT, PRODUCTIVE, CLEAR, COMPETENT, PRIVATE, DECISIVE

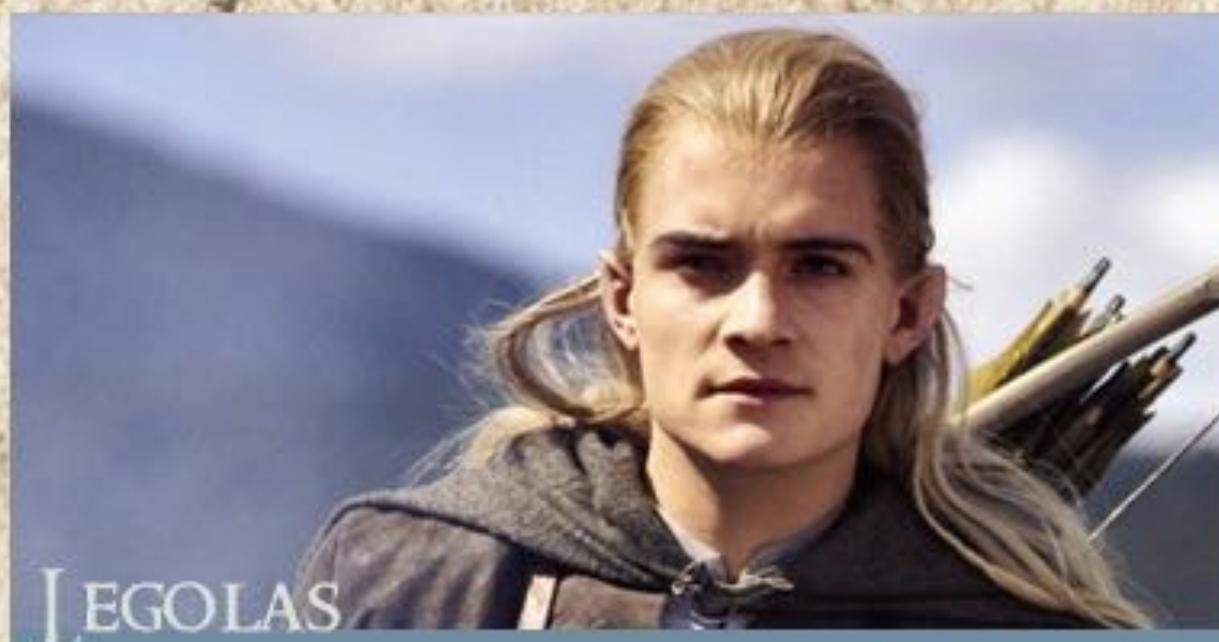


ÉOWYN

THE CRAFTER

ISTP

LOGICAL, PRAGMATIC, QUIET, AUTONOMOUS, REALISTIC, FLEXIBLE, RESOURCEFUL, OBJECTIVE, CURIOUS, ALOOF, DETACHED, FACTUAL, ANALYTICAL, EXPEDIENT, CHEERFUL, PRACTICAL, ADAPTABLE, CONFIDENT, TROUBLESHOOTER, CAREFUL, APPLIED, SPONTANEOUS, INDEPENDENT, CALM, ADVENTUROUS

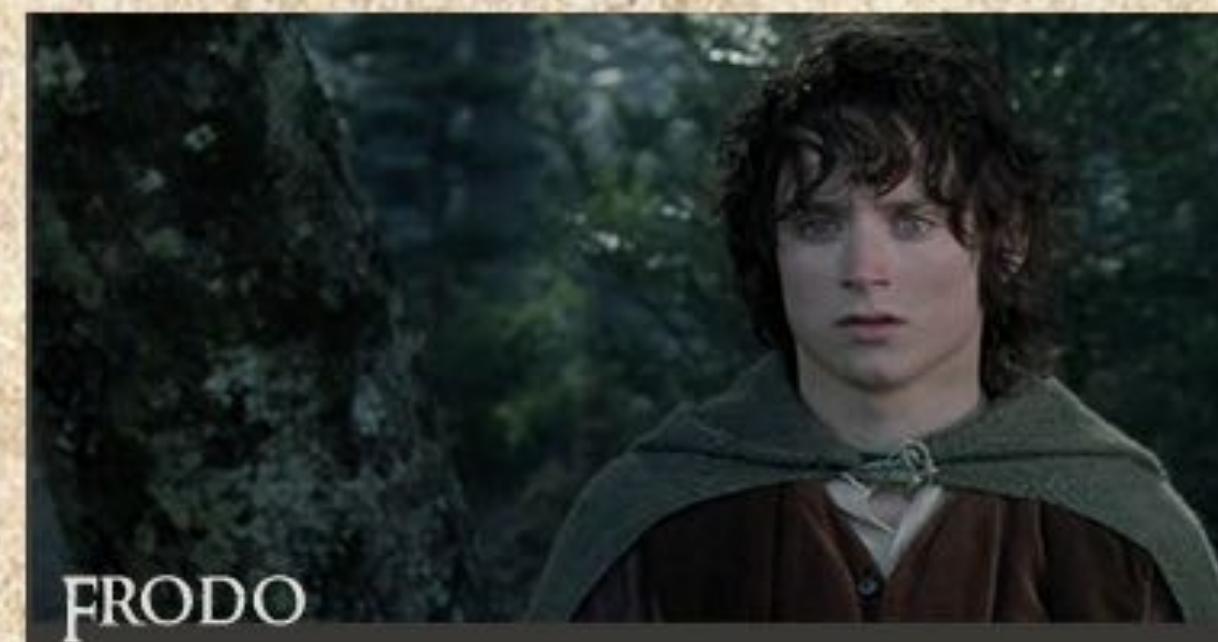


LEGOLAS

THE COMPOSER

ISFP

KIND, HUMBLE, EMPATHETIC, GENTLE, THOUGHTFUL, FAITHFUL, FRIENDLY, QUIET, PRACTICAL, MODEST, SPONTANEOUS, TRUSTING, PERSUADER, AGREEABLE, COMMITTED, LOYAL, IMPROVISING, ADAPTABLE, RESPONSIVE, CURIOUS, SENSITIVE, REALISTIC, TOLERANT, RESERVED, LOVES NATURE, HARMONIOUS



FRODO

THE IDEALIST

INFP

RESERVED, KIND, QUIET, SENSITIVE, DEVOTED, DEEP, PASSIONATE, CURIOUS, CREATIVE, INTROSPECTIVE, SEES POSSIBILITIES, ORIGINAL, NOBLE, IMAGINATIVE, FLEXIBLE, INSIGHTFUL, GENTLE, INNOVATIVE, CARING, INDIVIDUAL, ADAPTABLE, IDEALISTIC, COMPLEX, VIRTUOUS, RETICENT, EMPATHETIC, COMPASSIONATE



GANDALF

THE PHILOSOPHER

INTP

PRIVATE, QUIET, INDEPENDENT, SKEPTICAL, CURIOUS, LOGICAL, FOCUSED, NON CONFORMING, ADAPTIVE, UNPREDICTABLE, QUESTIONING, PRECISE, OBJECTIVE, ABSTRACT, INGENIOUS, DETACHED, INSIGHTFUL, PROBLEM SOLVER, INTELLECTUAL, INTELLIGENT, CONTEMPLATIVE, SPECULATIVE, THEORETICAL

CURIOUS, ALCOHOLIC, DETACHED, FACTUAL, ANALYTICAL,
EXPEDIENT, CHEERFUL, PRACTICAL, ADAPTABLE,
CONFIDENT, TROUBLESHOOTER, CAREFUL, APPLIED,
SPONTANEOUS, INDEPENDENT, CALM, ADVENTUROUS

SPONTANEOUS, FROSTING, PERSUADER, AGREEABLE,
COMMITTED, LOYAL, IMPROVISING, ADAPTABLE,
RESPONSIVE, CURIOUS, SENSITIVE, REALISTIC,
TOLERANT, RESERVED, LOVES NATURE, HARMONIOUS

SEES POSSIBILITIES, ORIGINAL, NOBLE, IMAGINATIVE,
FLEXIBLE, INSIGHTFUL, GENTLE, INNOVATIVE, CARING,
INDIVIDUAL, ADAPTABLE, IDEALISTIC, COMPLEX,
VIRTUOUS, RETICENT, EMPATHETIC, COMPASSIONATE

UNPREDICTABLE, QUESTIONING, PRECISE, OBJECTIVE,
ABSTRACT, INGENIOUS, DETACHED, INSIGHTFUL,
PROBLEM SOLVER, INTELLECTUAL, INTELLIGENT,
CONTEMPLATIVE, SPECULATIVE, THEORETICAL



GIMLI

THE ADVENTURER ESTP

ACTIVE, ADVENTUROUS, DIRECT, TALKATIVE, CURIOUS,
IMPULSIVE, GOOD-NATURED, ENERGETIC, ALERT,
FRIENDLY, MATERIALISTIC, OBSERVANT, PRAGMATIC,
RESOURCEFUL, PRACTICAL, LOGICAL, FUN-LOVING,
SPONTANEOUS, VERSATILE, ASSERTIVE, RATIONAL,
STRAIGHTFORWARD, LITERAL, EASYGOING, INVENTIVE



PIPPIN

THE PERFORMER ESFP

CURIOS, SENSITIVE, ACTIVE, ENTHUSIASTIC, CARING,
UNPREDICTABLE, WARM, GREGARIOUS, PLAYFUL,
TALKATIVE, IMPULSIVE, FUN-LOVING, GOOD NATURED,
OPEN, FRIENDLY, EASYGOING, ADAPTABLE, REALISTIC,
COMMON SENSE, FLEXIBLE, SPONTANEOUS, TACTFUL,
PRACTICAL, HARMONIOUS, PLEASANT, SUPPORTIVE



ARWEN

THE INSPIRER ENFP

AUTHENTIC, CURIOUS, PLAYFUL, VERSATILE, RESTLESS,
OUTGOING, INSPIRATIONAL, ENERGETIC, PERSUASIVE,
INDEPENDENT, ENTHUSIASTIC, ORIGINAL, INSIGHTFUL,
INGENIOUS, MAKES CONNECTIONS, APPRECIATIVE,
WARM, SENSITIVE, INNOVATIVE, CREATIVE, ADAPTABLE,
RESOURCEFUL, LIVELY, COMPASSIONATE, SOCIALE



MERRY

THE VISIONARY ENTP

ENTHUSIASTIC, FRIENDLY, OUTGOING, HUMOROUS,
ENERGETIC, FLEXIBLE, UNPREDICTABLE, LIVELY,
RATIONAL, STRATEGIC, IMAGINATIVE, LOGICAL,
ANALYTICAL, CREATIVE, CONCEPTUAL, RISK-TAKING,
INNOVATIVE, ADAPTABLE, CLEVER, INDEPENDENT,
RESOURCEFUL, MOTIVATOR, ASSERTIVE, OUTSPOKEN



BOROMIR

THE ENFORCER ESTJ

RESPONSIBLE, ENERGETIC, OUTSPOKEN, PRACTICAL,
REALISTIC, MATTER-OF-FACT, TRADITIONAL, LEADER,
DECISIVE, ACCOUNTABLE, ORGANIZED, LOGICAL,
DIRECT, OUTGOING, FRIENDLY, PRODUCTIVE, BLUNT,
ACHIEVER, ORDERLY, STRUCTURED, SELF-CONFIDENT,
ORGANIZER, EFFICIENT, OPINIONATED, HONEST



BILBO

THE PROVIDER ESFJ

ORGANIZED, DECISIVE, FRIENDLY, SENSITIVE, LITERAL,
RESPONSIBLE, SOCIALE, CONVENTIONAL, REALISTIC,
PRACTICAL, LOYAL, OUTGOING, TALKATIVE, ORDERLY,
SYMPATHETIC, ENERGETIC, DETAIL ORIENTED, OPEN,
CONSCIENTIOUS, ACCURATE, CONSISTENT, HELPFUL,
ACTIVE, WELCOMING, UNDERSTANDING, APPRECIATIVE



FARAMIR

THE GIVER ENFJ

FRIENDLY, EMPATHETIC, OUTGOING, ENTHUSIASTIC,
RELATIONAL, GOOD COMMUNICATOR, DECISIVE,
OPINIONATED, PRODUCTIVE, ORGANIZED, LOYAL,
RESPONSIBLE, INNOVATIVE, SUPPORTIVE, IDEALISTIC,
GRACIOUS, TRUSTWORTHY, SOCIALE, IMAGINATIVE,
HELPFUL, PERSONABLE, CURIOUS, WARM, PERSUASIVE



THÉODEN

THE COMMANDER ENTJ

STRONG WILLED, OUTSPOKEN, LOGICAL, COMPETENT,
GLOBAL PERSPECTIVE, DEMANDING, FRANK, FRIENDLY,
KNOWLEDGEABLE, PRODUCTIVE, NATURAL LEADER,
ORGANIZED, DECISIVE, ASSERTIVE, FAIR, EFFICIENT,
DETERMINED, INNOVATIVE, STRATEGIC, OUTGOING,
STIMULATING, CRITIC, CONTROLLED, CLEAR, PLANNER

Enneagram: 9 types

- 1 THE REFORMER
 - ▶ Rational, Idealistic: Principled and Purposeful, but Self-Controlled and Perfectionistic
- 2 THE HELPER
 - ▶ Caring, Interpersonal: Demonstrative and Generous, but People-Pleasing and Possessive
- 3 THE ACHIEVER
 - ▶ Success-Oriented, Pragmatic: Adaptive and Excelling, but Driven and Image-Conscious

Enneagram: 9 types

- 4 THE INDIVIDUALIST
 - ▶ Sensitive, Withdrawn: Expressive and Dramatic, but Self-Absorbed and Temperamental
- 5 THE INVESTIGATOR
 - ▶ Intense, Cerebral: Perceptive and Innovative, but Secretive and Isolated
- 6 THE LOYALIST
 - ▶ Committed, Security-Oriented: Engaging and Responsible, but Anxious and Suspicious

Enneagram: 9 types

- 7 THE ENTHUSIAST
 - ▶ The Busy, Fun-Loving Type: Spontaneous and Versatile, but Distractible and Scattered
- 8 THE CHALLENGER
 - ▶ The Powerful, Dominating Type: Self-Confident and Decisive, but Willful and Confrontational
- 9 THE PEACEMAKER
 - ▶ The Easygoing, Self-Effacing Type: Receptive and Reassuring, but Agreeable and Complacent

Eneagram Types

*Don't judge
me. I have a
11 year old
daughter*



Also: Alignment

Exercise:
Correlate
enneagram /
alignment / M-B
and other type
systems



LAWFUL GOOD

"I don't like bullies. I don't care where they're from."



NEUTRAL GOOD

"You want me to put the hammer down?"



CHAOTIC GOOD

"You have reached the life model decoy of Tony Stark, please leave a message."



LAWFUL NEUTRAL

"You lack conviction."



TRUE NEUTRAL

"You better call it Coulson, 'cause I'm starting to root for this guy."



CHAOTIC NEUTRAL

"That's my secret, Cap: I'm always angry."



LAWFUL EVIL

"I've got red in my ledger. I'd like to wipe it out."



NEUTRAL EVIL

"You've made me VERY desperate."



CHAOTIC EVIL

"There are no men like me."

Quick Intro to Ethics

- Goals
 - ▶ Identify the main features of a system of ethics.
 - ▶ Examine decisions and activities in computing from an ethical standpoint.
- More on ethics throughout the course



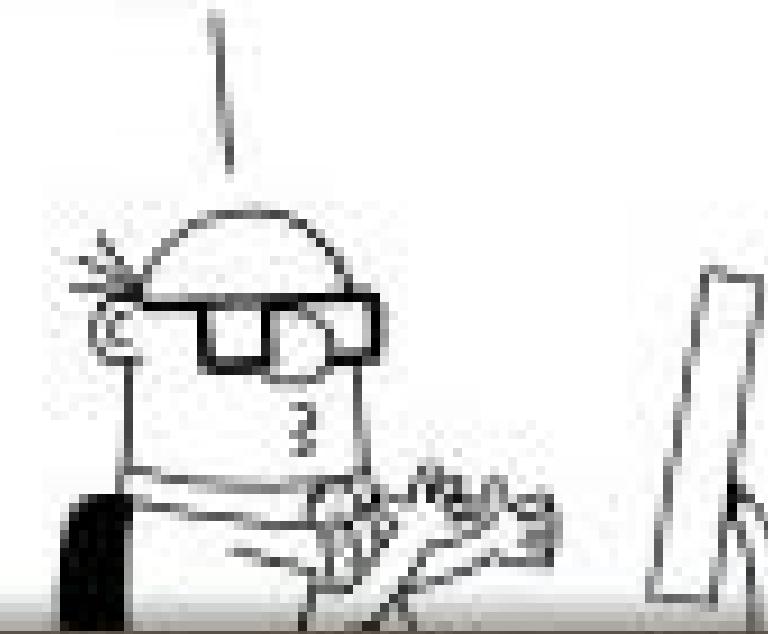
joyoftech.com

Millions of years of evolution are
finally paying off for *Geeko Sapiens*.

MARTIN, I DISCOVERED
A DEADLY SAFETY FLAW
IN OUR PRODUCT. WHO
SHOULD I INFORM?



NO ONE. THE STOCK
WOULD PLUNGE AND
WE'D HAVE MASSIVE
LAYOFFS. YOUR
CAREER WOULD BE
RUINED.



BUT MY NEGLIGENCE
COULD CAUSE THE
DEATHS OF A DOZEN
CUSTOMERS.



THE FIRST
DOZEN IS
ALWAYS THE
HARDEST.

What is Ethics

- what it means to “do the right thing”.
 - ▶ old questions
 - ▶ Innate feelings/ideas, how to prove
- Assumptions about humans:
 - ▶ act rationally
 - ▶ make free choices
 - ▶ responsible for their actions
 - *(none of which are true of course)*

Ethical Theories In General

- Goal: to enhance human happiness and well-being.
- Clarify our obligations and responsibilities.
- Two major types: deontological and utilitarian.

Deontological Theories

- Emphasize duty, absolute rules.
 - ▶ Deon = Duty
- Immanuel Kant: 3 Principles
 - ▶ Universality
 - ▶ Rationality
 - ▶ People have inherent value
- Rules apply to everyone
 - ▶ Equally?

Deontological Theories

- Logic and reason
- A “just” society is one in which people would not be unhappy if roles were magically reversed
 - ▶ Do unto others, golden rule etc.
- Do right regardless of consequences
 - ▶ No lying, even if it would save a life

Utilitarian Theories

- increase happiness/‘utility’ for the greatest number
- Act Utilitarianism:
 - ▶ Consider the consequences of actions
 - all benefits and detriments, add it up
 - ▶ action with greatest benefit is moral
- Rule Utilitarianism:
 - ▶ Set rules of behaviour that result in the greatest good
 - ▶ Ends justify the means

Utilitarian Theories

- Communism
 - ▶ From each according to his abilities, to each according to his needs
- Nazi Germany
 - ▶ best result for (our) people
 - ▶ Eugenics, forced sterilization
- Who decides what is the greatest good?
- Who decides who is included?

Other ethical theories

- **Natural Order:**
 - ▶ There is a “Natural” way of things (hint: there isn’t)
 - Ethical behaviour = natural order
- **Doctrine:** Do what’s in this book
 - ▶ Who wrote the book? motives?
- **Natural Rights:**
 - ▶ Let people make their own decisions
 - ▶ Right to ourselves and our labour
 - ▶ Ayn Rand, Anarchy, “all taxation is theft”

Some Important Distinctions

- Acts can be *Right*, *Wrong*, or *Okay*:
 - ▶ ethically obligatory, prohibited, or acceptable.
 - Depending on the ethical model
 - ▶ *Negative rights* (liberties): the right to act without coercive interference.
 - ▶ *Positive rights* (claim-rights): a right which imposes an obligation on some people to provide certain things.

Claim rights, and Liberty Rights

- Freedom of speech is a liberty right
 - ▶ You can say whatever you want. You have no claim on anyone to make them listen or support your speech.
- Right to vote is a claim right
 - ▶ Other people have to organize the election, take the vote, count, etc; and taxes are collected from citizens to pay for the administration of the vote

Some Important Distinctions

- Wrong vs. harm:
 - ▶ some acts may cause harm to others but are not necessarily unethical.
- Goals vs. constraints:
 - ▶ goals (and actions) consistent with our ethical constraints?
- Law vs. ethics:
 - ▶ some acts are ethical, but illegal; other acts are legal, but unethical.

Ethics in Technology

- As a tech user; as a tech professional
- More later in the course, but
 - ▶ What are some ethical dilemmas you can think of?