

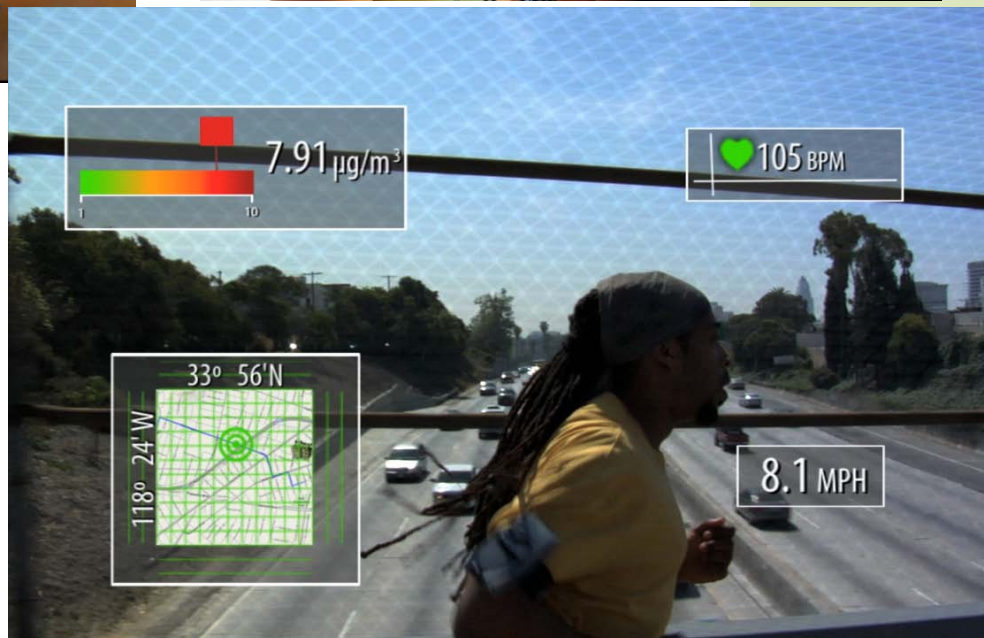


Mobile Technologies, Data, & Adolescents' Academic, Social, and Moral Lives

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Mobile Devices: Beyond Communication



Example: GoGreen Foundation



GoGreen Foundation [Become a Fan](#)

Wall Info Reviews Discussions

Go to Application

Add to my Page
Block Application

Information

Users:
2 monthly active users,
3 friends

Category
Education

This application was **not** developed by Facebook.

Fans
6 fans [See All](#)

About GoGreen Foundation

This is GoGreen's application about page...

Friends using this Application



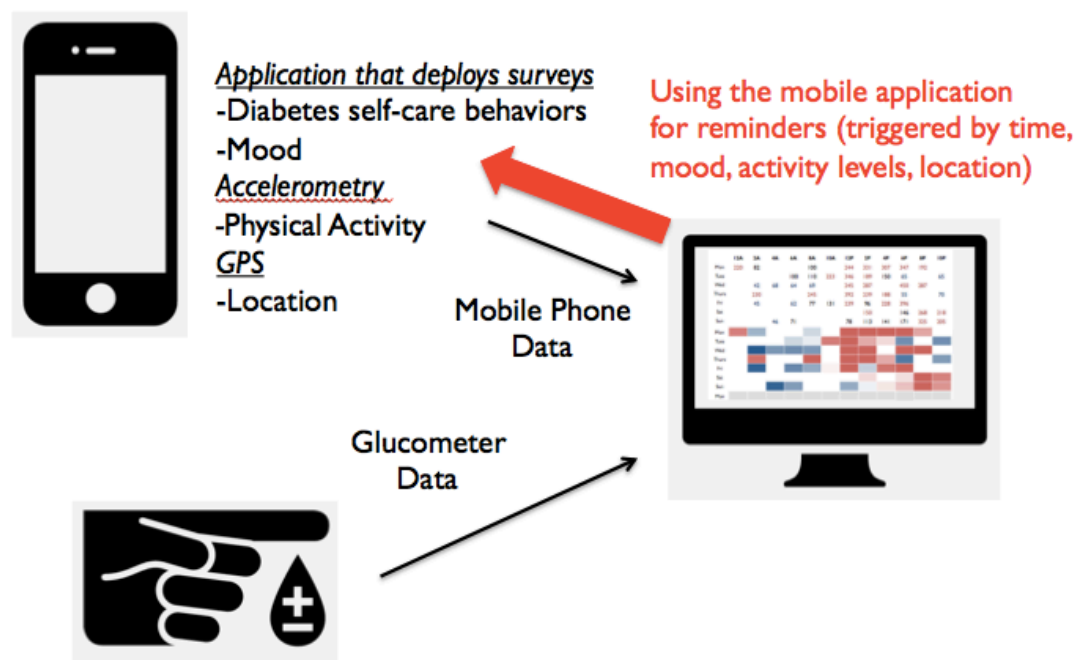
About Go Green Foundation

OUR VISION * To inspire a youth culture concerned and motivated to act on behalf of the planet. Create a student based population to educate, share, and understand sustainability changes that will stimulate sustainability into communities in the real world. OUR MISSION * EDUCATE, EMPOWER * Inspire young peoples imaginations and creativity to address the challenges of a stable and sustainable planet. * Educate young people about climate change, global warming, and sustainable living practices * Empower and mobilize young people to act as catalysts for change. OBJECTIVES: * Galvanize themselves to be the tip of the iceberg for their school or of peers and adults to "go green" in their daily lives * Reach a broad demographic scale



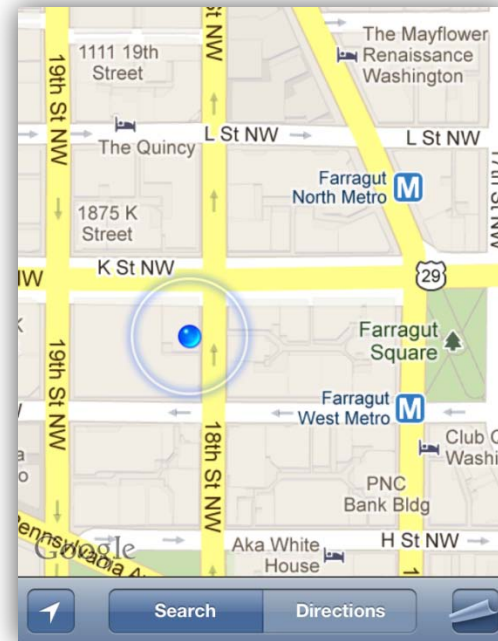
Example: Mobile Health

- Data collection and reminders
- Tracking chronic diseases such as diabetes.



Dependent Upon Location

- GPS
- Wi-Fi
- Cell towers



Why Privacy?

Location traces quantify habits, routines, associations & are easy to mine

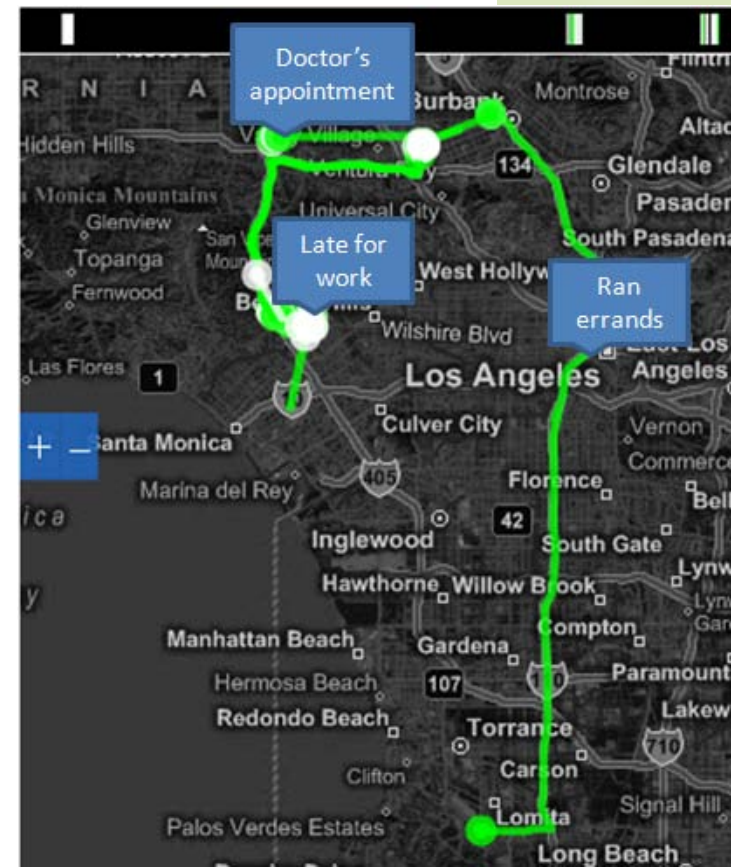
Potential consequences:

- Safety & security threats

- Location-based discrimination

- Disrupted social boundaries

- Chilling effect on legal but stigmatized activities



And... young people care!

- Majority of young adults (18-24) in national survey = similar privacy preferences to adults
- But – young adults had large gap in *privacy knowledge*

Chris Jay Hoofnagle et. al., *How Different Are Young Adults from Older Adults When It Comes to Information Privacy Attitudes and Policies?* (Apr. 14, 2010), available at <http://ssrn.com/abstract=1589864>.



The privacy knowledge gap

Consumers don't realize how much is tracked



Jennifer M. Urban, Chris Jay Hoofnagle, and Su Li, Mobile Phones and Privacy, Jul. 11, 2012, available at <http://ssrn.com/abstract=2103405>.

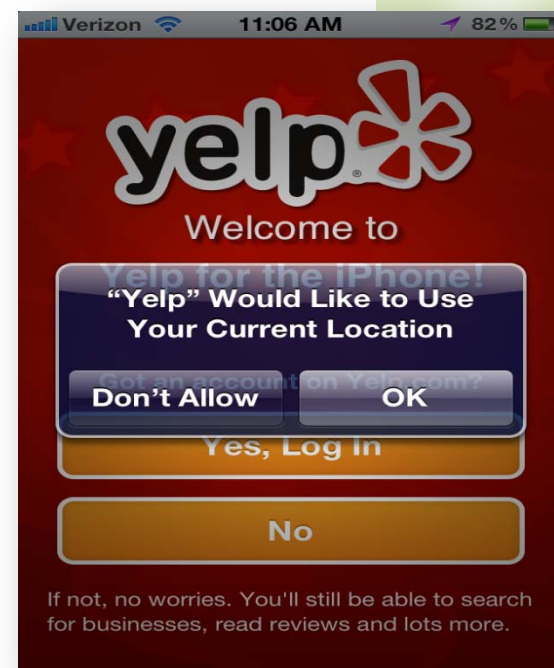
Privacy challenges: cloud storage

- Most data – location, contact lists, game play – stored in the cloud
- Third party providers – what's their privacy policy?



Privacy challenges: Notification and consent

- Many apps ask for permission and then collect data.
- How do you decide which apps to give permission to?
- How do you opt back out?



Privacy challenges: law enforcement

In 2011, law enforcement made 1.3 million requests for

- text messages
- caller locations
- other information



Courts still debating whether a warrant is necessary

Privacy challenges: regulation

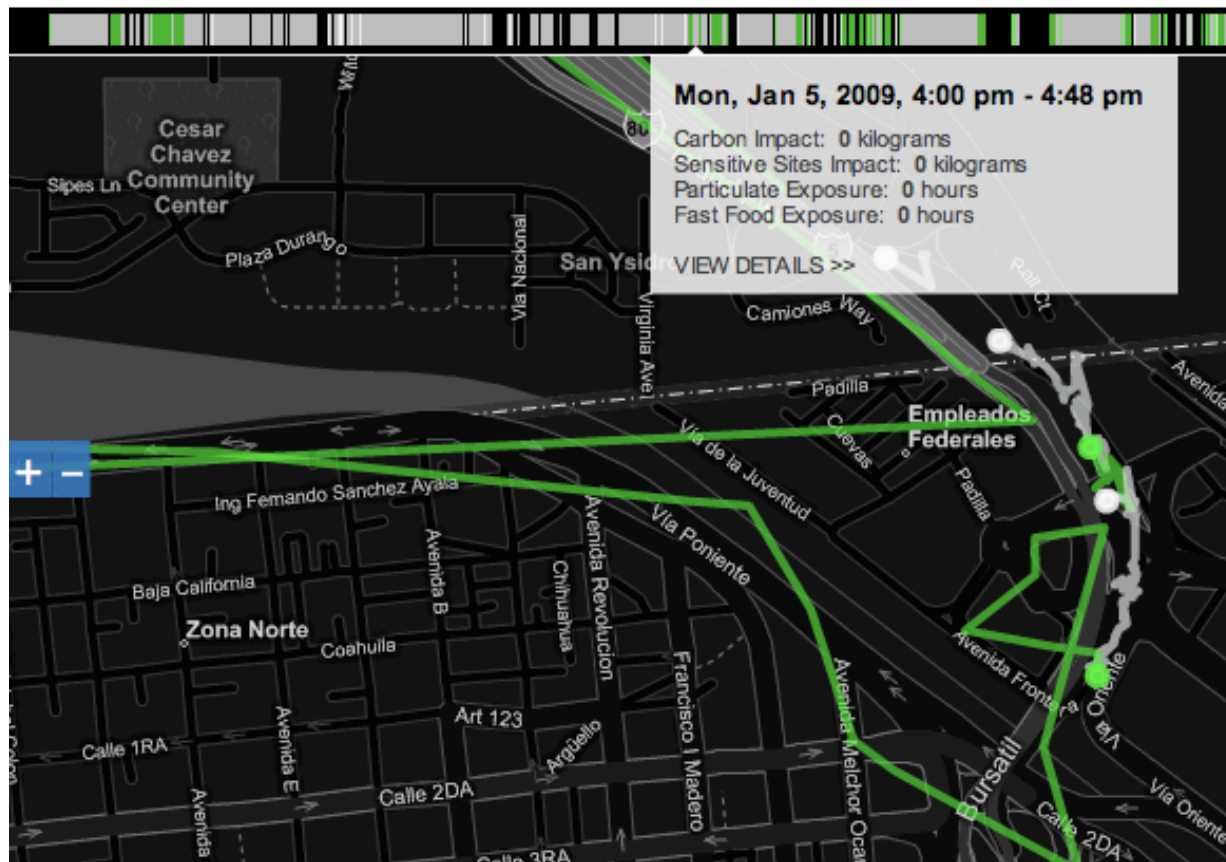
Data is currently unregulated



Challenges: Students and Minors

Different levels of technology experience

Varying time & energy for data management



Challenges: Data Literacy

Making sense of data

Legible phone & app interfaces

User engagement in analysis

When am I on and off plan?

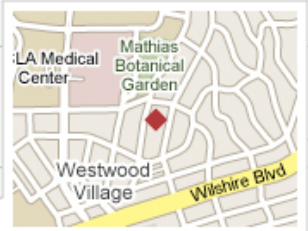
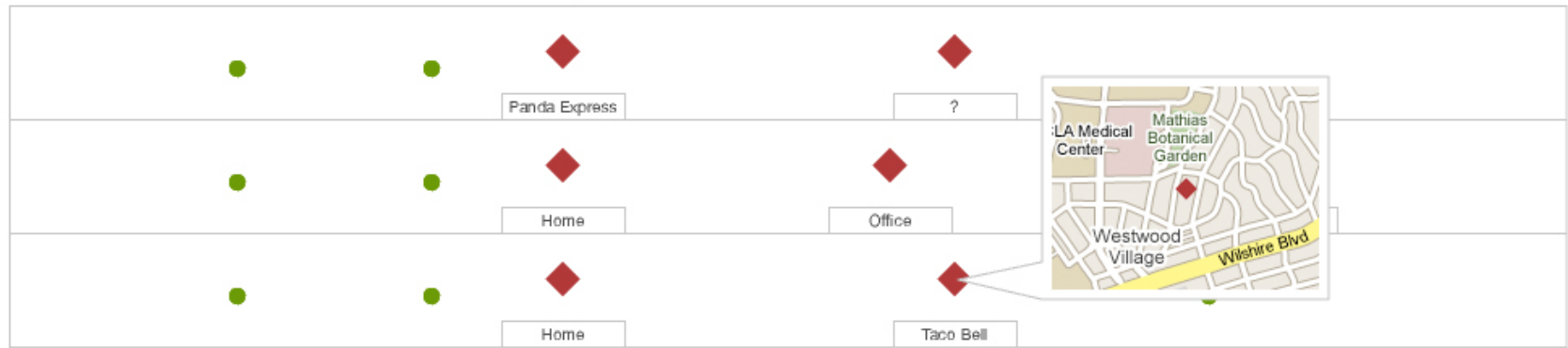
● On plan ❌ Off plan

4 5 6 7 8 9 10 11 12p 1 2 3 4 5 6 7 8 9 10 11 12a 1 2 3

Monday
July 5

Tuesday
July 6

Wednesday
July 7



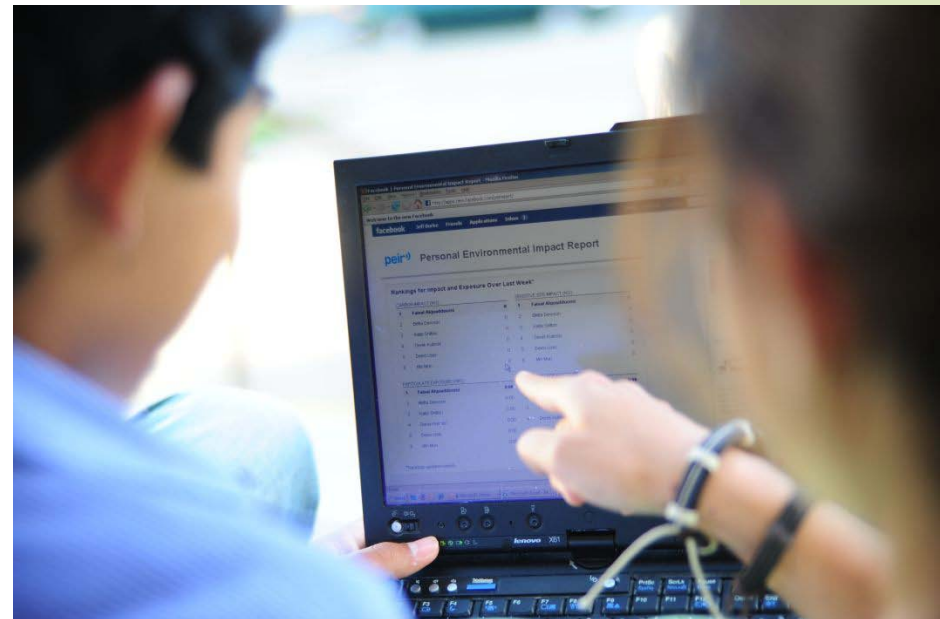
Challenges: Identity and Roles

Should parents have access to teens' location data?

Should teachers?

Youth group leaders? Friends?

School security? Police?



Challenges: Pervasive Memory

What if our teenage indiscretions are never forgotten?

All Friends Photos White Board Blog Polls Comments **Dark Fairy**

Katie Shilton <katie-shilton>



hey im katie ,i go to halesowen colleg n have some really gr8 friends there i love them 2 bits just wish ppl wud stay there longer gunna miss them all . i have a gr8 bf n wud neva change him 4 ne fin i lopve him so much plus hes in aband called ttam so look them up hehe.

Gender Female
Age 17

Profile Views
3693 times

Share the Luv
♥ 4

Hometown
bearwood

Katie Shilton's URL
<http://www.bebo.com/katie-shilton>
(or <http://katie-shilton.bebo.com>)

Music
lost prophets, blink 182, green day, system of a down, bullet 4 my valentine , korn, takin back sunday, killers, red hot chilli peppers, guns and roses, matalica , rage of the machines , trivium, story of the yr, fall out boy, avenge seven fold, 2 many 2 say all....yay i saw bullet 4 my valentine it was totally awsum they r so kwl i wanna marry matt yay he so fukin hot n they r rele gud live trust me lol yay they was so gud got no voice left now tho hehe n was squashed n felt up n fins but i got the front yay go me lol

Films
i love films wid adam snadle in hes the bst well funny and erm i love scary films and sum chick flicks lol....

Sports
i go gym a couple times a week wid all my m8s lame i no but o well lol and my fav team is the albion as all my family support them and i do 2.....

[Send a Message](#) | [Saved Messages](#)
[Add as Friend](#)
[Use this Skin](#) | [Favorites](#)
[Send-It](#)
[Block](#) | [Report Abuse](#)

Challenges:

Understanding Consequences

Privacy as hiding from parents, maybe governments

- But what about employers, advertisers, even friends?

More transparency

- Do teens understand what location information reveals about them?

Targeted advertising





Addressing the Challenges: Teen Practices

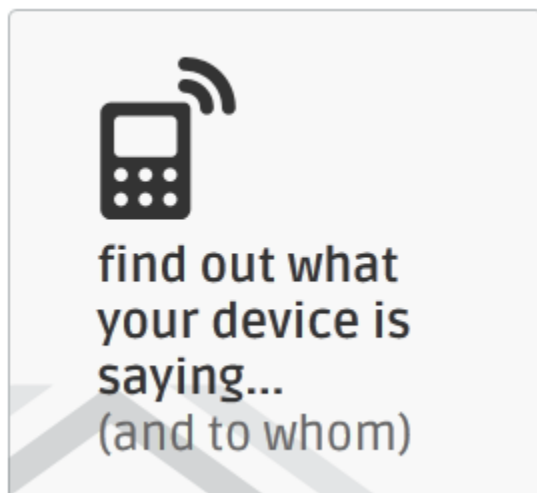
Teens already take some privacy measures

- Boundary work
- Using tech tools to limit access
- Social stenography

boyd, danah, & Marwick, A. E. (2011). Social Privacy in Networked Publics: Teens' Attitudes, Practices, and Strategies. *A Decade in Internet Time: Symposium on the Dynamics of the Internet and Society*, Oxford, UK: SSRN.

Addressing the challenges: New tools

- Data vaults
- Transparency tools



<https://mobilescope.net/>



<http://personal.com>

Addressing the Challenges: Teachable Moments

Phones & data in the classroom



<http://www.mobilizingcs.org/>

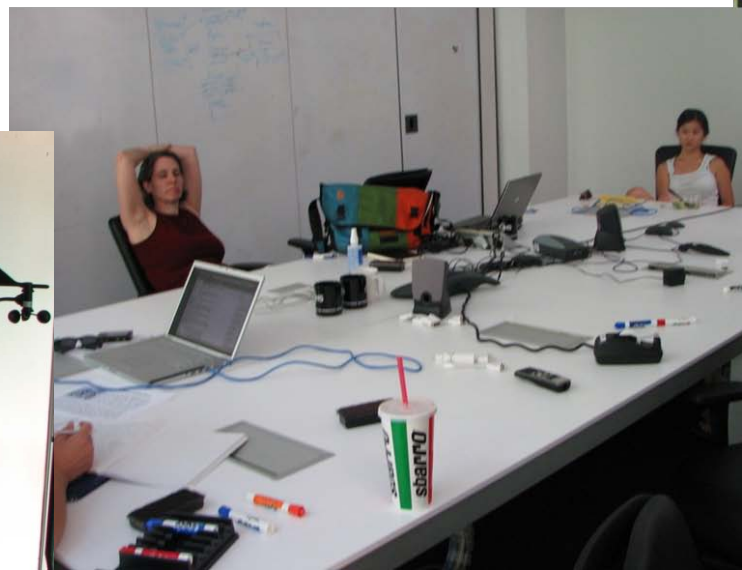
mobilize


Study: Fostering Concern for Privacy

Study of the Center for Embedded Networked Sensing (CENS)

Qualitative study of design

- Participant observation
- Interviews
- Document analysis





Addressing the Challenges: Values Levers

Finding: Activities that build consensus around social values as design criteria

- Some levers were activities already present within design;
- Others were introduced to design by teachers, leaders.



Values Lever: Self-Testing

Grad student G: If I'm going somewhere and I don't want anyone to know, I think: **I need to turn off this application**, or leave my cell phone...

Grad student L: I did data collection for T., like for a week or something. Then I felt like, not privacy ... but I felt that I wanted to go out more actively. I felt like: **oh, they are watching me, I need to be more active.**



Takeaways: Teaching Ethics in the Classroom & the Lab

- Discussing ethics is a part of experimenting with new technologies
- Teaching ethics is part of a technology education

Thanks!

Katie Shilton

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UMD's Information Policy & Access Center
(iPAC)

<http://ipac.umd.edu/>