

# Health Care Social Media: Physician/Entrepreneur Perspective

October 24<sup>th</sup>, 2013

Jennifer Shine Dyer MD, MPH

Physician, Mobile Health Entrepreneur

Duet Health LLC

EndoGoddess LLC

Columbus, Ohio





- Pediatric Endocrinologist
- Health Behavioralist (MPH)
- Problem-solving technology entrepreneur
- Social media enthusiast (@EndoGoddess)





A close-up photograph of a computer keyboard. The central focus is a bright green key with the word "Search" printed in white. Surrounding this key are various other keys, including brackets, backslashes, and a "delete" key with a small 'x' icon. The lighting is soft, highlighting the texture of the keys.

Search

**83% of  
online  
adults\***

Fox, Susannah, Jones,  
Sydney. The Social Life  
of Health Information,  
2009. Pew Internet &  
American Life Project.

shift

\*61% of total  
population



Treatment #1



Treatment #2



Treatment #3



60% of e-patients said health information found online **affected their treatment decisions**

# **Social Media: Health Literacy**

- Blogging
- Podcasts
- Twitter
- Facebook
- LinkedIn
- Youtube
- Health Literacy: Web-Based Content
- Online community participation

# 2007: Health Literacy, Online Content

**Type 2 Diabetes in Children - A Growing Epidemic - Windows Internet Explorer provided by Nationwide Children's Hospital**

http://www.netwellness.org/healthtopics/diabetes/childdiabetes.cfm

File Edit View Favorites Tools Help

Type 2 Diabetes in Children - A Growing Epid...

University of Cincinnati  
The Ohio State University  
Case Western Reserve University

**NetWellness**  
Consumer Health Information

NetWellness provides the highest quality health information and education services created and evaluated by faculty of our partner universities.

Tuesday, February 15, 2011

Home HealthTopics Health Centers Reference Library Search Go Advanced

## Diabetes

Email Page Print Page

### Type 2 Diabetes in Children - A Growing Epidemic

#### What is Diabetes?

There are two major types of diabetes: Type 1 and Type 2. Both Type 1 and Type 2 diabetes cause blood sugar levels to become higher than normal. However, they do this in different ways.

- Type 1 diabetes** (formerly called insulin-dependent diabetes or juvenile diabetes) is an autoimmune disease which occurs when the child's immune system starts to destroy its own insulin-producing cells in the pancreas. Because the pancreas is not able to produce insulin, children with type 1 diabetes need insulin to help keep their blood sugar levels within a normal range.
- Type 2 diabetes** (formerly called non-insulin-dependent diabetes or adult-onset diabetes) is different. In contrast to someone with Type 1 diabetes, someone with Type 2 diabetes still produces insulin. But the body doesn't respond to the insulin normally. Excess weight and obesity can cause the insulin to not work correctly. When the insulin does not work correctly, glucose is less able to enter the cells and do its job of supplying energy (doctors call this insulin resistance). This causes the blood sugar level to rise, making the pancreas produce even more insulin. Eventually, the pancreas can wear out from working overtime to produce extra insulin. Then, the pancreas may no longer be able to produce enough insulin to keep a person's blood sugar levels within a normal range.

In past years, children typically got Type 1 diabetes, which occurs when the child's immune system starts to destroy its own insulin-producing cells in the pancreas. Type 1 diabetes is not related to obesity or to dietary intake of sugars.

Type 2 diabetes, the obesity-related form in which the body does not respond to insulin normally, was seen in adults. Children did not typically get Type 2 diabetes; thus it was called adult-onset diabetes.

With rising cases of childhood obesity, children are now getting Type 2 diabetes, and the numbers are increasing rapidly.

#### Signs and Symptoms of Type 2 Diabetes

The symptoms of type 2 diabetes aren't always obvious and they can take a long time to develop. Sometimes there are no symptoms. It's important to remember that not everyone with insulin resistance or type 2 diabetes develops these warning signs, and not everyone who has these symptoms necessarily has Type 2 diabetes.

But a child or teen who develops Type 2 diabetes may:

- urinate frequently.** The kidneys respond to high levels of glucose in the blood by flushing out the extra glucose in urine. A child with a high blood sugar level needs to urinate more frequently and in larger volumes.
- drink a lot of liquids.** Because the child is peeing so frequently and losing so much fluid, he or she can become very thirsty. He or she drinks a lot in an attempt to keep the levels of body water normal.

Internet 100%





## 2008: The iPhone 3G

Steve Jobs unveils the latest generation of his revolutionary product. The 3G is faster and less expensive than its predecessor with larger screen for video.

# 2008: Twitter

 Search Home Profile Messages Who To Follow   EndoGoddess



## Jen Dyer MD, MPH

**@EndoGoddess** Columbus, Ohio  
*Stylish pediatric endocrinologist, researcher, former Texan who loves NYC, beginning foodie who believes in the power of balanced nutrition to prevent disease.*  
<http://www.youtube.com/user/drjenshinedyer>

Edit your profile →

Timeline Favorites Following Followers Lists ▾



**EndoGoddess** Jen Dyer MD, MPH  
**@nchsportsmed** Am inpatient attending this week so not at community clinics...catch me next Wednesday though and we'll talk for sure! :)  
20 minutes ago




**EndoGoddess** Jen Dyer MD, MPH  
Endo teaching cases on Tuesday morning...always learn so much from the legendary Dr. Sotos! <http://plixi.com/p/77584632>  
4 hours ago



**EndoGoddess** Jen Dyer MD, MPH  
**@lkkelly** Glad you made it back safe and sound to LA! :)  
15 hours ago



**EndoGoddess** Jen Dyer MD, MPH  
Heard this awesome advice today: you deserve happiness just because.  
15 hours ago



**EndoGoddess** Jen Dyer MD, MPH  
Awesome!: HHS launches portal for healthcare indicator data to support health app development <http://healthindicators.gov/>  
18 hours ago



**EndoGoddess** Jen Dyer MD, MPH  
**@BioPharmaRob** Just sent you email...thanks for your interest! :)  
18 hours ago



**EndoGoddess** Jen Dyer MD, MPH



### About @EndoGoddess

**9,073** Tweets   **2,798** Following   **3,768** Followers   **323** Listed

Following **2,798**   Followers **3,768**

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[Advertisers](#) • [Businesses](#) • [Media](#) • [Developers](#) • [Resources](#) • © 2011 Twitter

# Healthcare Twitter Chats

Sunday, 9pm EST , #hscsm

healthcare social media

Monday, 9pm EST, #bcsm

breast cancer social media

Wednesday, 8pm EST, #s4pm

society for participatory medicine

Wednesday, 9pm EST, #dsma

diabetes social media advocacy

Wednesday, 9pm EST, #mhealth

mobile health

Thursday, 9pm EST, #MedEd

medical education

Friday, noon EST, #HITsm

health IT social media

<http://www.symplur.com/healthcare-hashtags/tweet-chats/>

# 2008: YouTube

**EndoGoddess: For Your Health**  
drjenshinedyer's Channel

Subscribe

All

Uploads

Favorites



There are 23.6 million people in the United States that have diabetes.

0:08 / 6:08

360p

CC



Info

Favorite

Share

Playlists

Flag

**Nationwide Children's Hospital and ADA Diabetes Video**

From: NationwideChildrens | May 25, 2010 | 165 views

Like



View comments, related videos, and more

Uploads (1)

**Closed Traumatic Head Injury**  
61 views - 2 weeks ago

[see all](#)

[arrange](#)

Favorites (1)

**Nationwide Children's Hospital and ADA**  
Nationwid... - 165 views

[see all](#)

[arrange](#)



**drjenshinedyer**  
Your channel viewers will see links here, including "subscribe" and "add as friend".

Profile

edit

Subscribers (3)

  
mithoodil

  
brianahier1

  
docvovo

edit



# endogoddess.blogspot.com/

## EndoGoddess Musings

A Stylish Physician's Adventures In Mobile Health





# Guest Blogging

Become an Expert | Sign In



Ask your health question here

Ask

EXPLORE HEALTH TOPICS

DR. OZ ANSWERS: What is Move It And Lose It?

PROFILE

ANSWERS

BIO

CREDENTIALS

EVENTS

FRIENDS

COLLEAGUES

GROUPS

BLOG



## + Dr. Jennifer Dyer

Endocrinology,

Diabetes, Pediatrics, Nutrition, Social Media,  
mHealth, Food Policy

02/03/2011

### Bio:

Jennifer Shine Dyer, MD, MPH is a board-certified practicing physician in both Pediatrics and Pediatric Endocrinology at Nationwide Children's Hospital affiliated with The Ohio State University College of Medicine in Columbus, Ohio where she recently earned her MPH degree in health behavior studies.

She is an active mHealth researcher/innovator focused on developing and using mobile innovations

... More

Credentials:

> VIEW ALL

## Blog

Search

### A Food-Culture Change Is Upon Us

Feb 3, 2011



As a pediatric endocrinologist, I am on the frontline of the childhood obesity epidemic. In fact, I am now seeing 100-pound two year olds and 150-pound three-year-old kids in my clinic and I am concerned. The obesity epidemic is perpetuated by a processed food-culture that lacks healthier local whole foods. Diets dominated by processed foods (refined carbohydrates with high fat- and/or high-sugar content and artificial ingredients) over whole foods (fruits, vegetables, whole grains) spur more obesity and diabetes, and have even been shown to negatively change gene expression of the offspring during pregnancy. All-processed ingredients reflect the balance of desirable factors in the modern way of life such as shelf life (long), taste (sweet), texture (fat) convenience (high), and price (low) — all profitable, all less nutritious, and all with a mass-marketed, generic, “cultureless” appeal that reduces emphasis on local cultures and flavors. The recent rise of social networking is testament to the fact that people are hungry to connect...

0 Comments

### Improving Health Literacy By Healing The Doctor-Patient Relationship

Oct 26, 2010



When it comes to understanding medical information, even the most sophisticated patient may not be “smarter than a fifth grader.” In one of the largest studies of the links between health literacy and poor health outcomes, involving 14,000 patients with type 2 diabetes, researchers at the University of California San Francisco and Kaiser Permanente found that more than half the patients reported problems learning about their condition and 40 percent needed help reading medical materials. The patients with limited health literacy were 30 to 40 percent more likely to experience hypoglycemia — dangerously low blood sugar that can be caused if medications are not taken as instructed — than those with an adequate understanding of medical information. Now, federal and state officials are pushing public health professionals, doctors, and insurers to simplify the language they use to

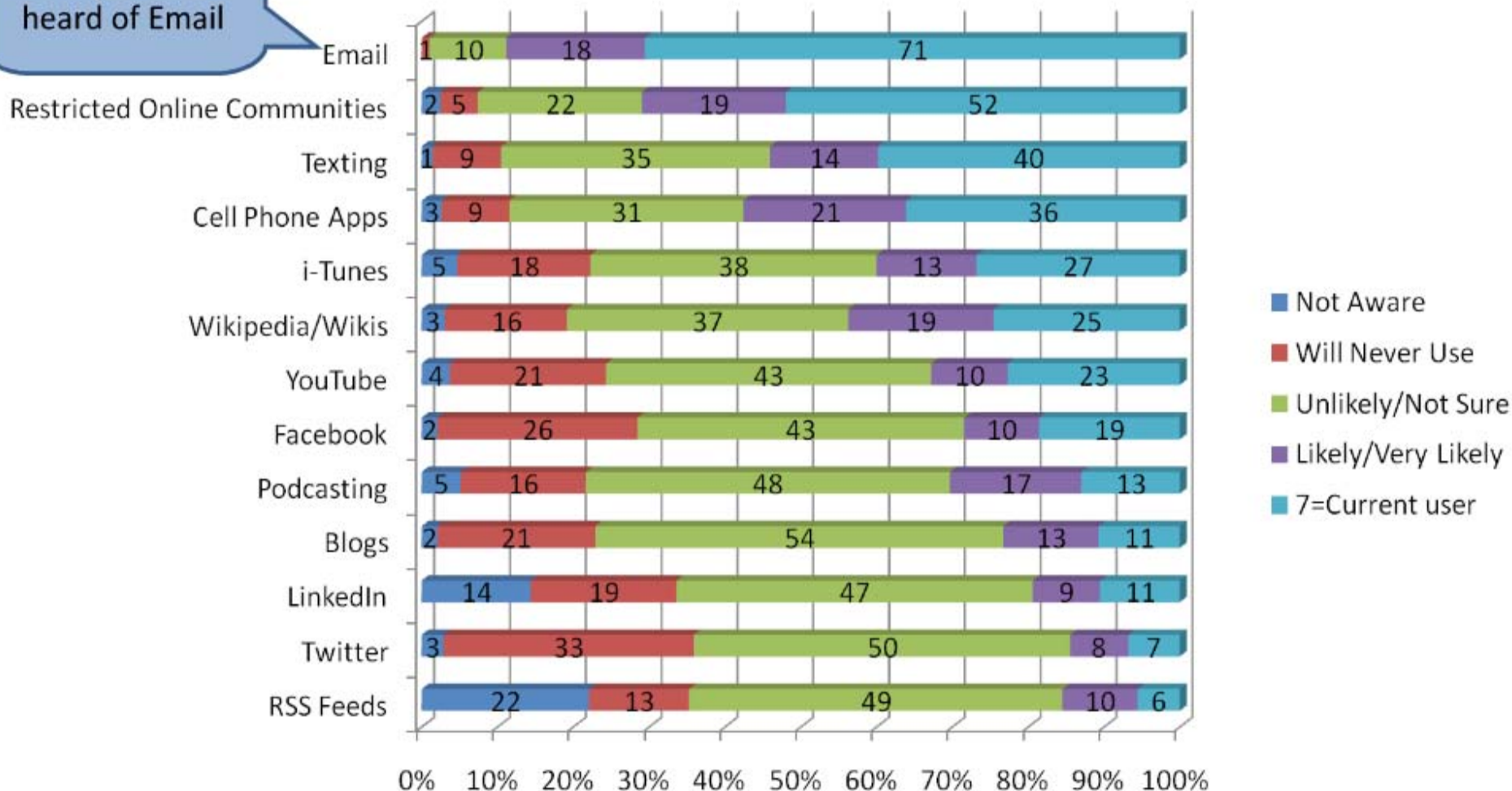


# Survey Sample Demographics

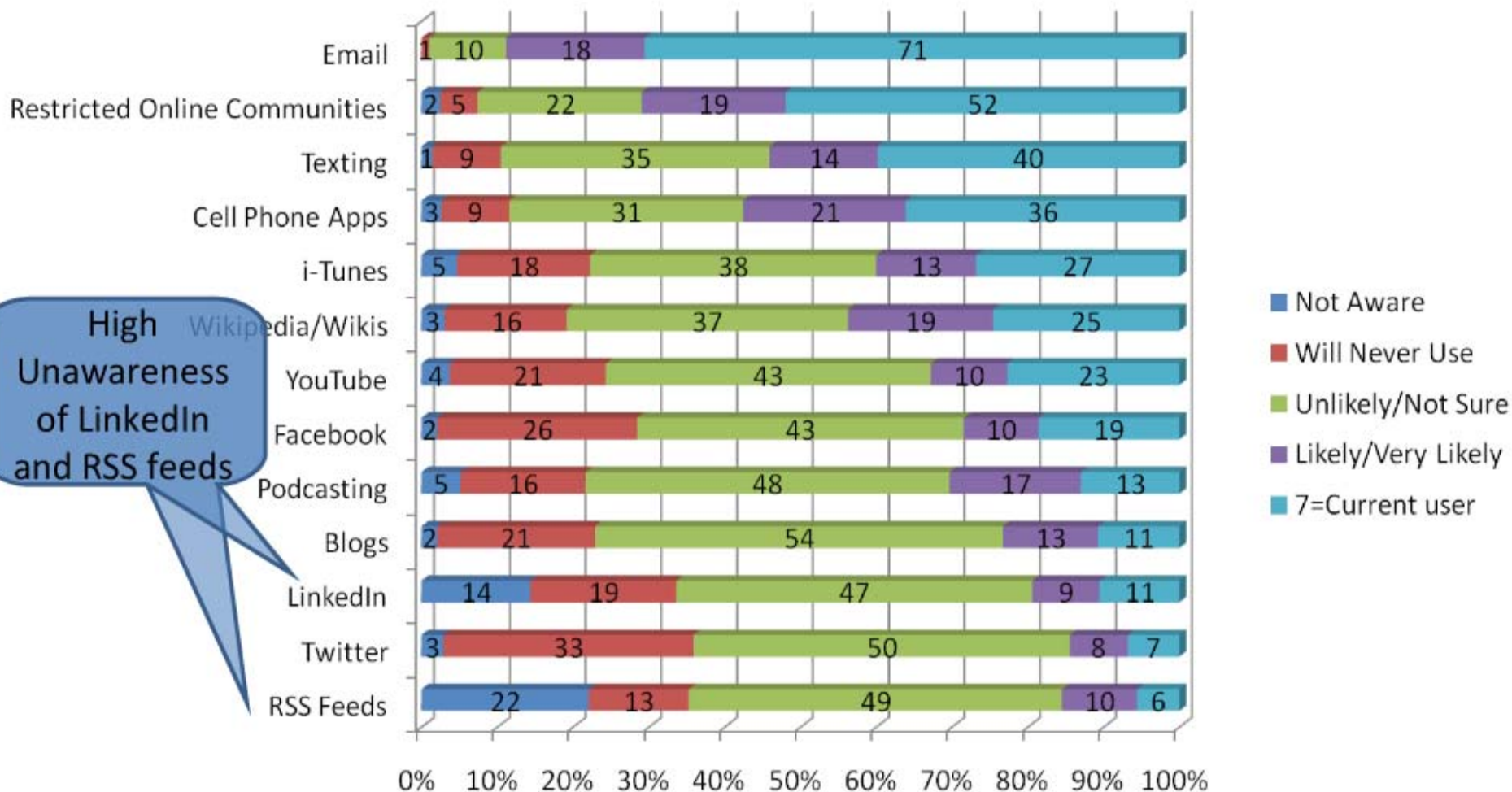
Demographic Characteristics		Oncology n = 186	Primary Care n = 299
Degree	MD/DO	100%	100%
Years since graduation from medical school	Mean/St. dev.	24 years/10	24 years/9
Percent	Male	75%	72%
Patients seen per week	Mean/St.dev.	100 patients/56	124 patients/73
Practice Location	Urban	47%	23%
	Suburban	44%	60%
	Rural	9%	17%
Practice Setting	Solo Practice	12%	34%
	Group Practice	68%	60%
	Medical School	9%	1%
	Non-Government Hospital	5%	3%
Major professional activity	Direct patient care	97%	98%

# Sharing Medical Knowledge

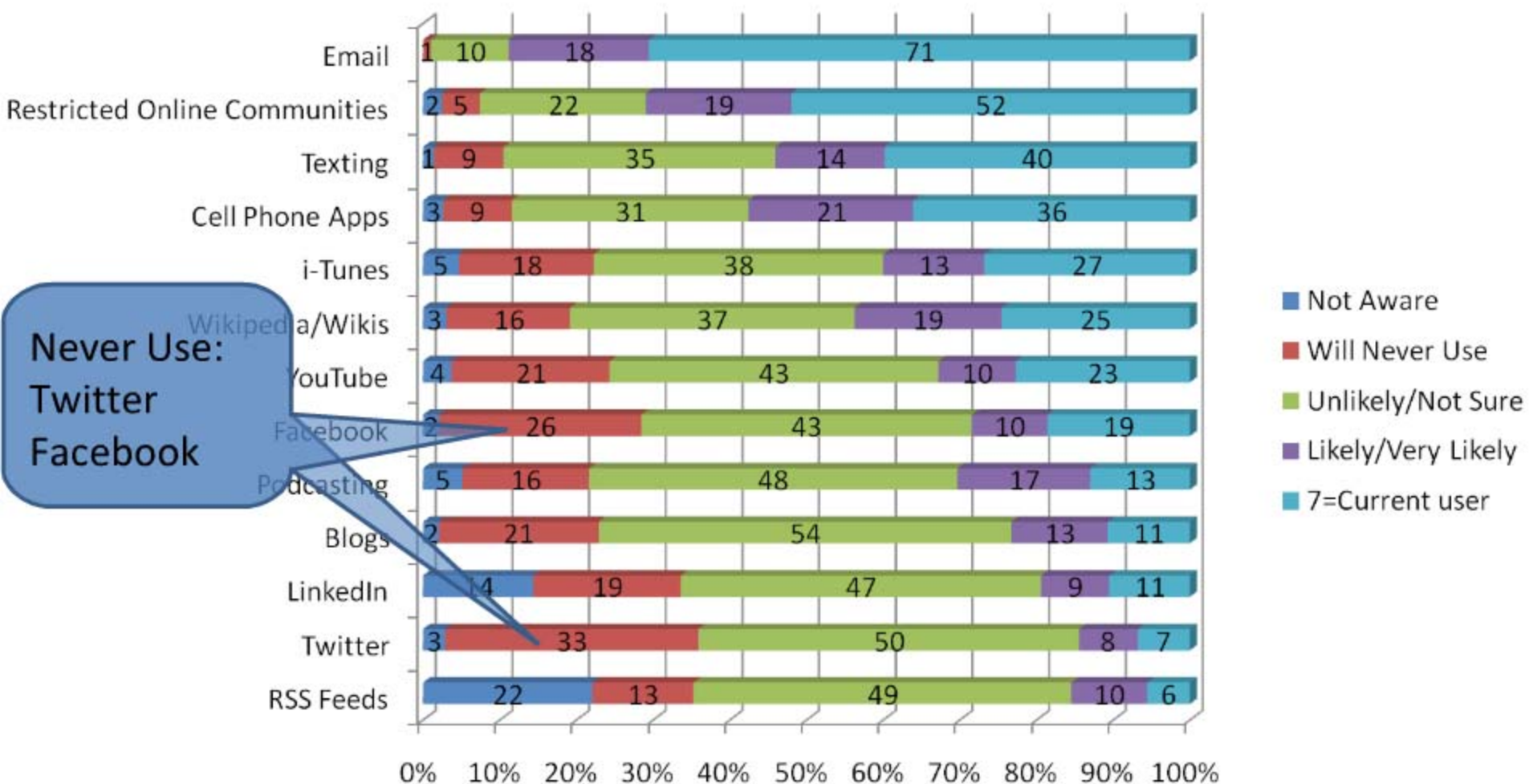
Everyone has heard of Email



# Sharing Medical Knowledge



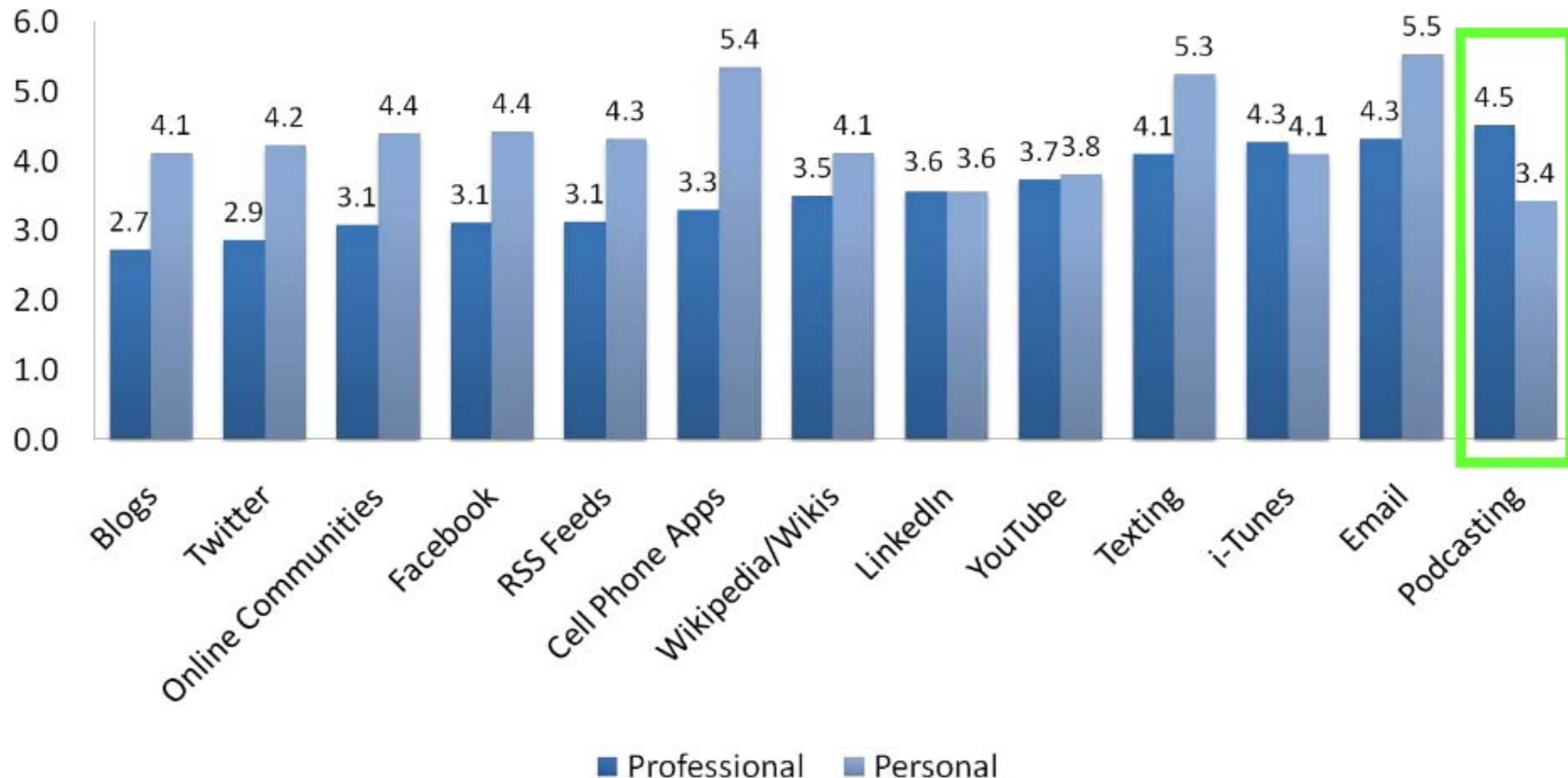
# Sharing Medical Knowledge





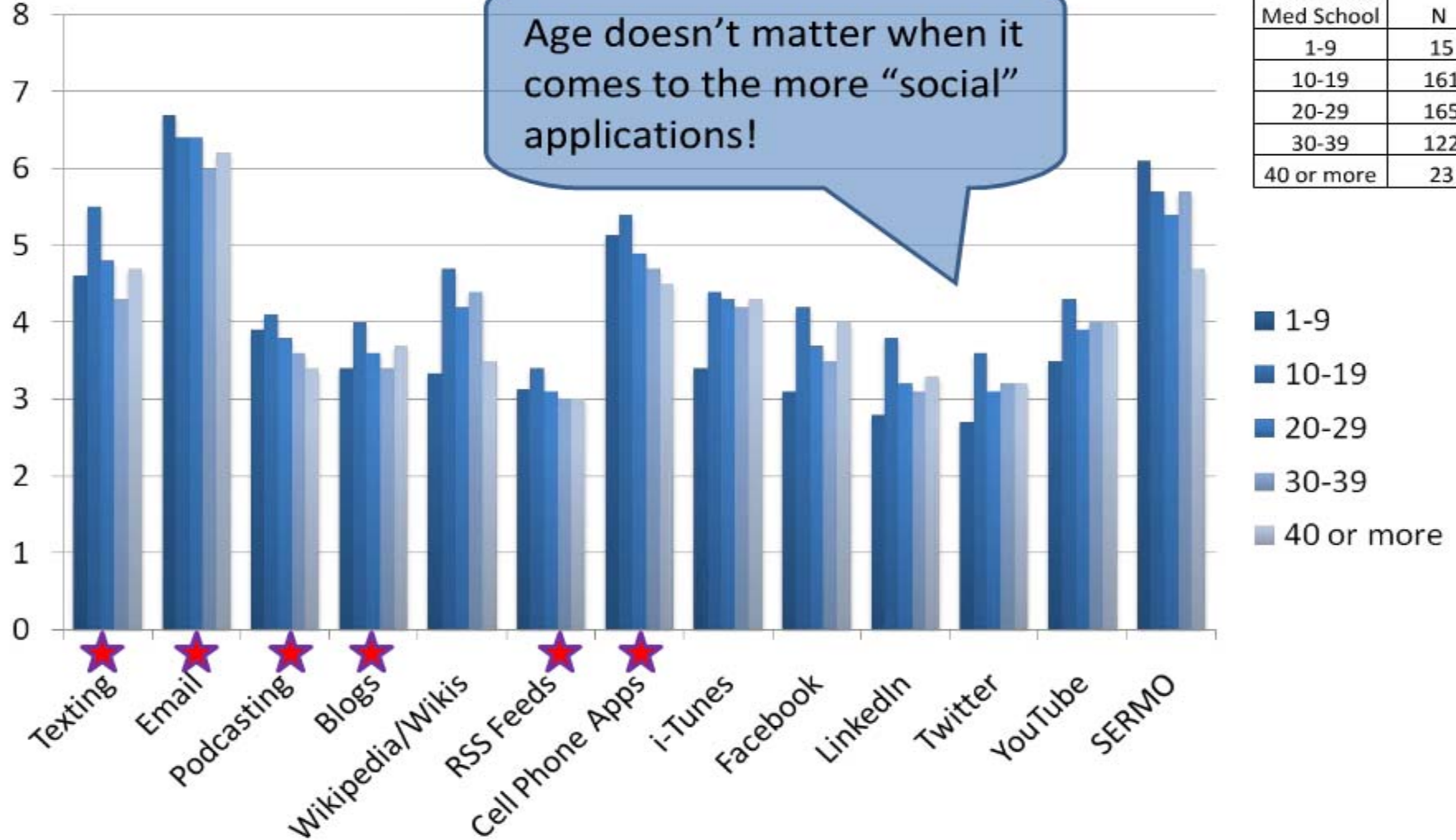
# Users Only: Frequency of Prof vs Pers Use

1=Rarely 2=Monthly 3=Once a week  
4=3 times a week 5=Daily 6=Many times a day



# Media Usage by Years Since Med School

Mean; Scale: 1-7

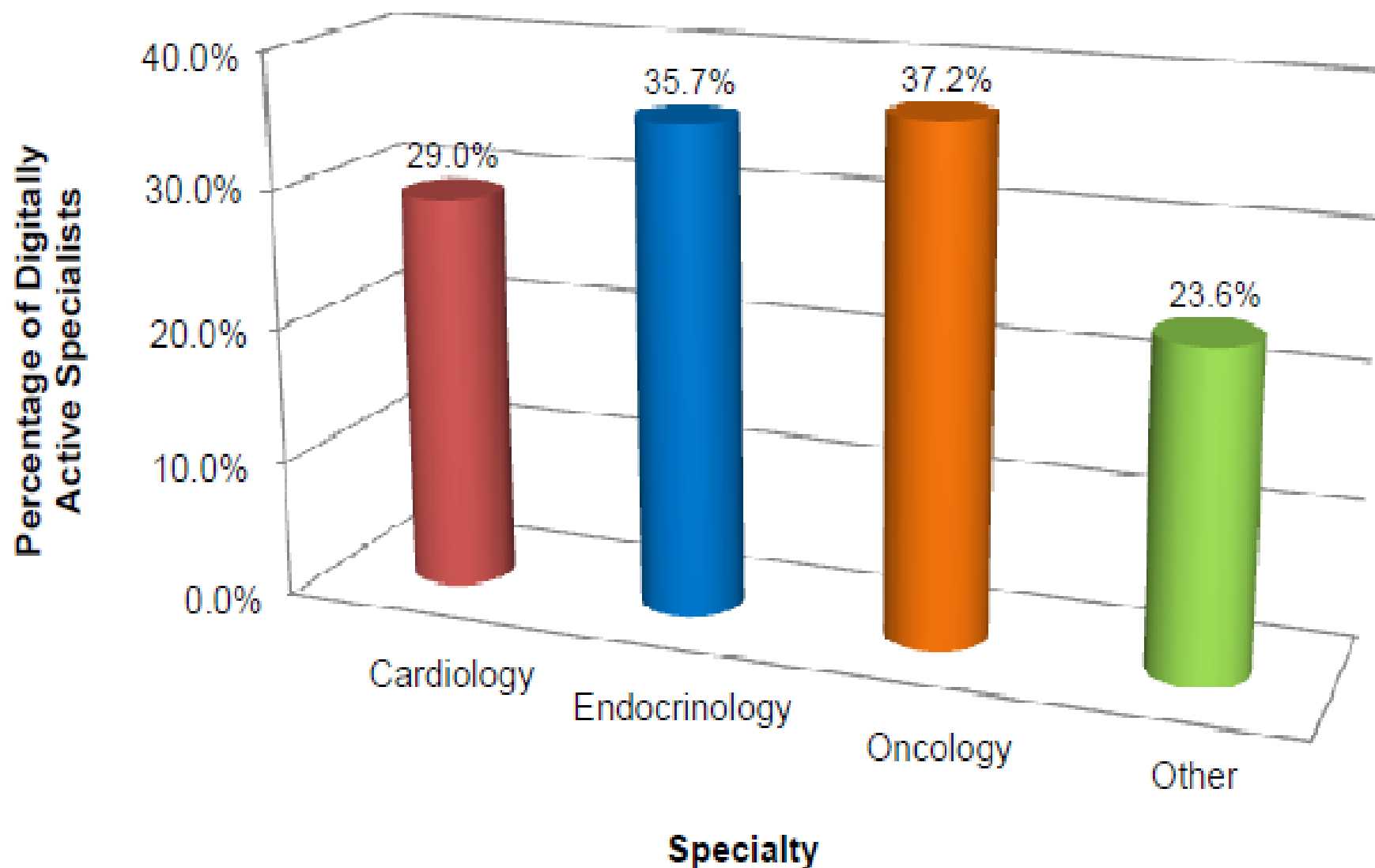


1=Not Aware 2= Will Never Use 3=Unlikely to Use within 3 Months 4=Not Sure 5=Likely to Use within 3 Months 6=Very Likely to Use within 3 Months 7=Current User

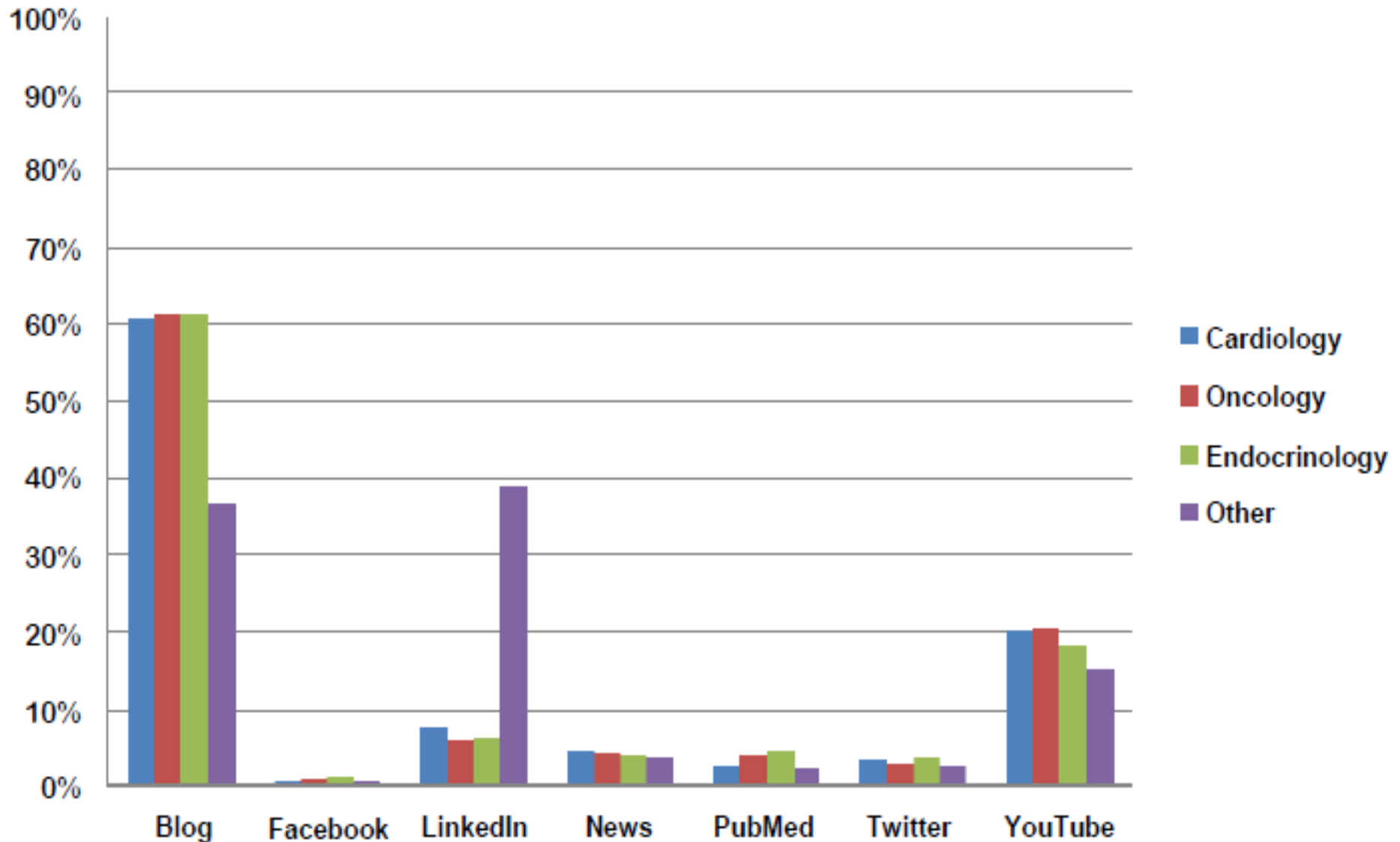
★ Significant correlation



## Digitally Active Specialists



# Specialist Presence by Channel



**Not scalable**

and mom  
I'll swim so I will try  
goodnight! =)  
Kay. <3

Dr Dyer here- how are |

Q

W

E

R

A

S

D

# 2010: App Development



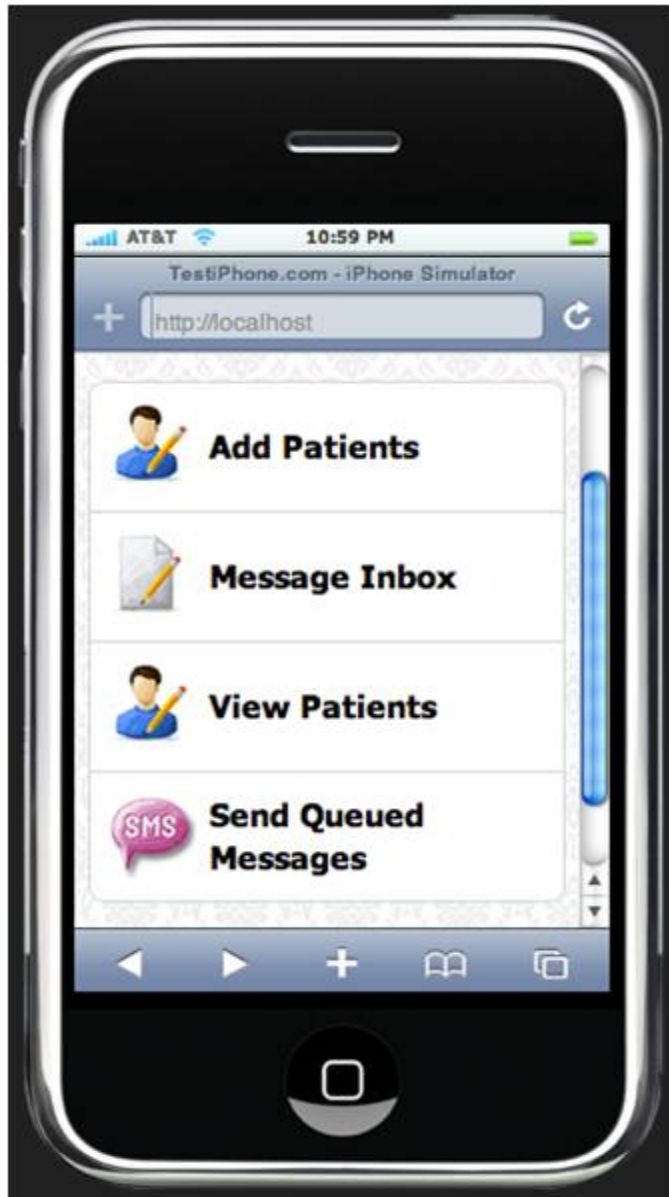
**stuboo:** I'm 2nd year med student (w a penchant for coding). I'd love to talk to you about research/automating the txt reminders.



**endogoddess:** My nonrandomized nonscientific trial of my use of texting to 2 diabetic teens for bolus reminders: seems to be successful, better hgba1cs!

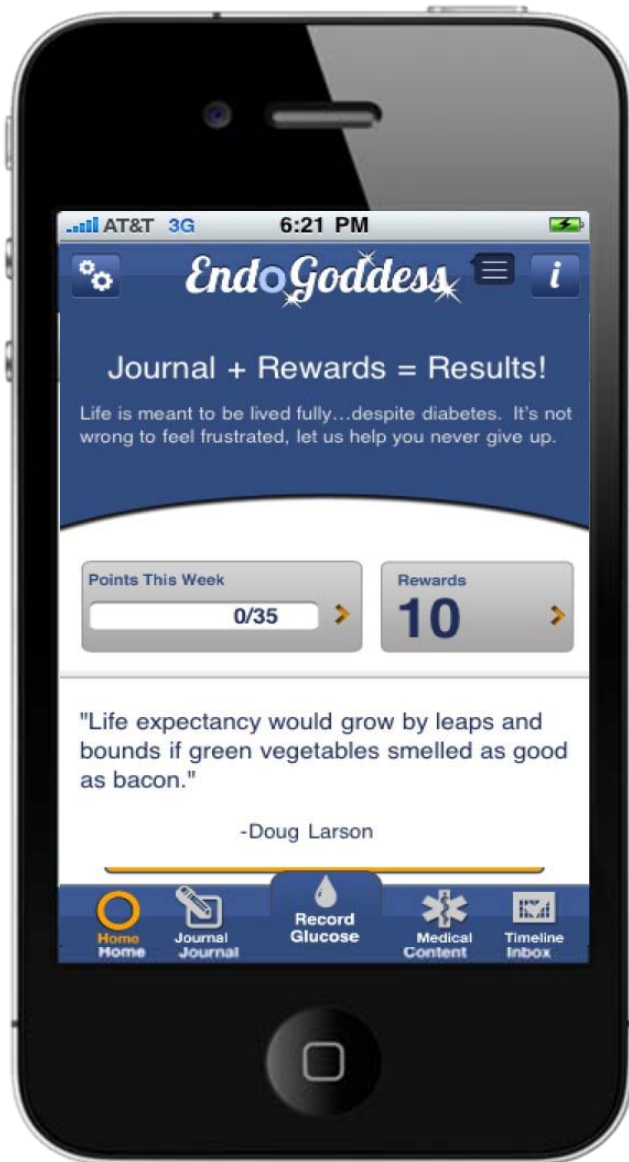


# Bolus Reminder App, 2010



Automated, personalized  
SMS texting conversation  
by doctor  
to teen

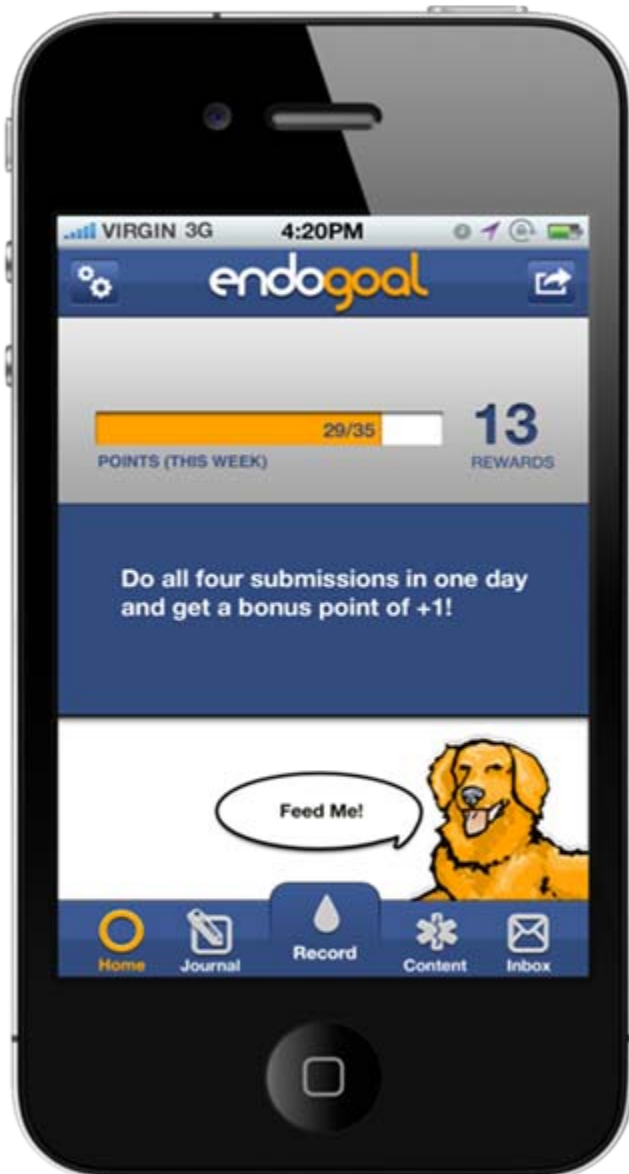
# EndoGoddess App, 2011



- Self-entry glucose journal:
- iTunes rewards
  - motivating quotes



# EndoGoal App, 2012

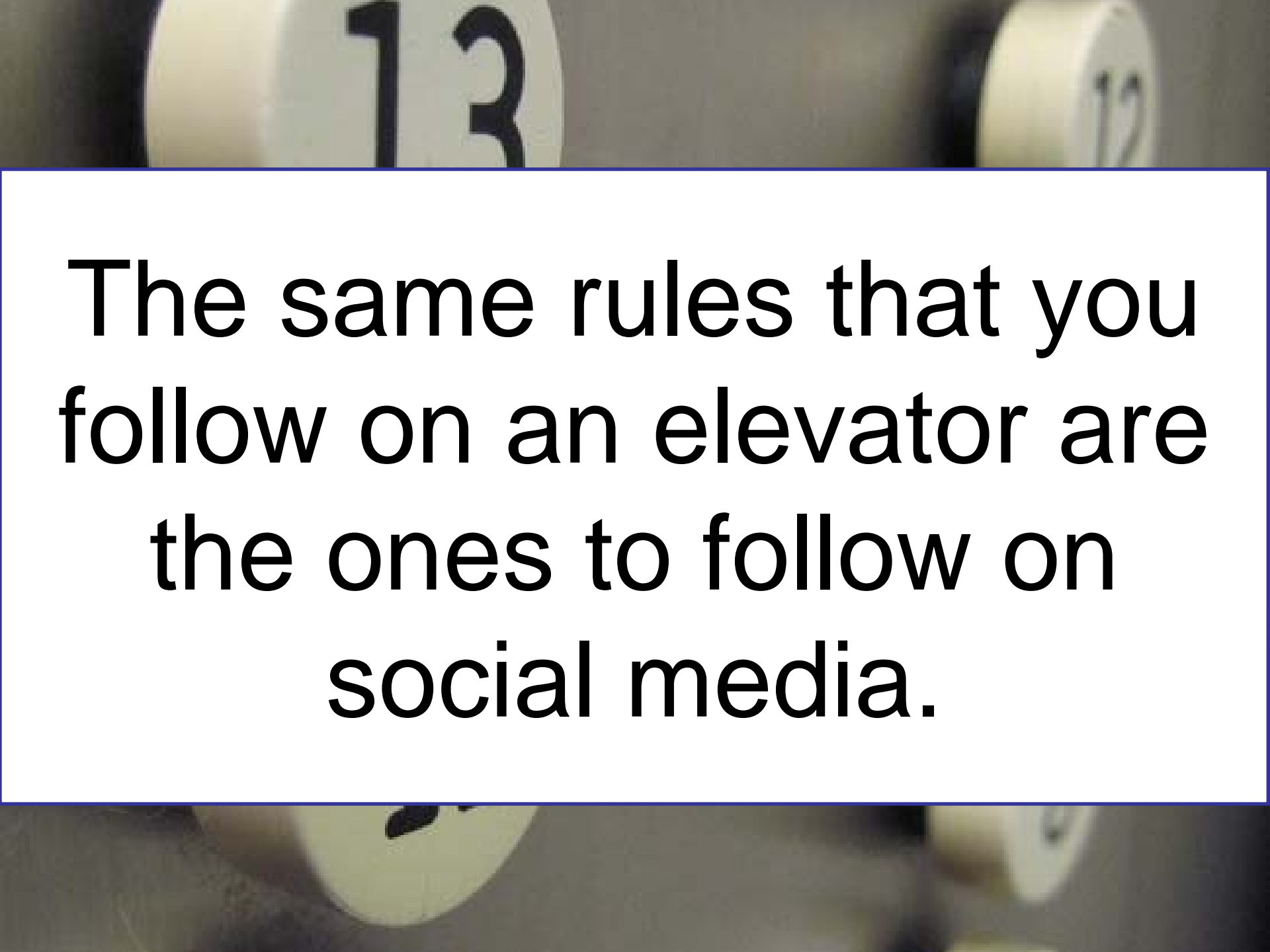


- Self-entry glucose journal:
- real \$ rewards
  - digital pet rewards
  - company wellness


# Social Media ROI

- Controlled digital footprint
- Thought leader
- Direct feedback and interaction
- Fun
- New opportunities from networking: -
  - conferences/meetings
  - federal/state policy advocacy
  - academic collaborations and papers

# Tips



The same rules that you follow on an elevator are the ones to follow on social media.



**Know HIPAA.**

Not sure? Consult with  
legal early and often for  
clarity.

District Courts  
Courts of Appeals  
Supreme Court

District Courts  
Courts of Appeals  
Supreme Court

District Courts  
Courts of Appeals  
Supreme Court

District Courts  
Courts of Appeals  
Supreme Court

District Courts  
Courts of Appeals  
Supreme Court





Jen Dyer MD, MPH


[View my profile page](#)

Tweets

David Harlow  
(@healthblawg)

Dan Goldman  
(@danielg280)

Trends · [Change](#)

[#McDMonopoly](#)  Promoted

[#LadyParts](#)



Amanda P Dolan @apdolan

MT @wegohealth: The goal of Oct is same as our activism: bring awareness to what's real. Often what's unspoken & scary – needs  
often #UAsbat

14

essed in a  
bonds

Use policies to limit  
liability.

es



<http://drkkolmes.com/>

that interview.




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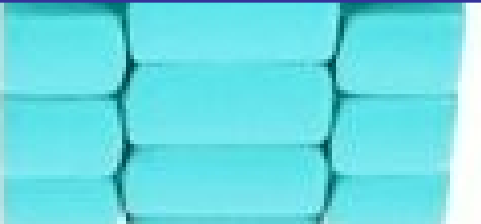


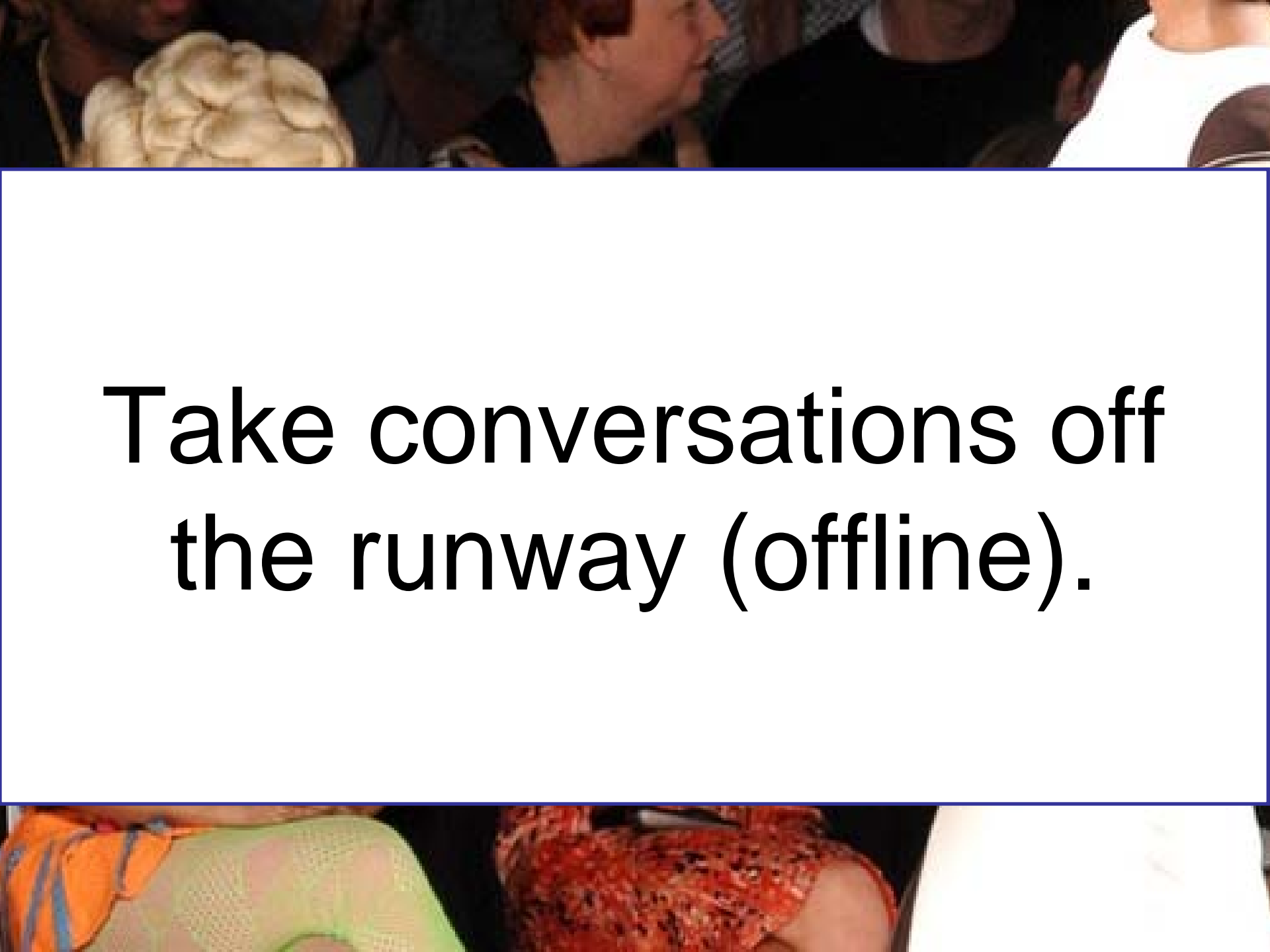
Do NOT practice  
medicine online.





Watch conversations:  
scan and scrub and  
interact daily.



A photograph of a crowd of people, likely at a fashion show or event. The image is split horizontally by a large white text box. The top half shows the upper bodies of several people, including a woman with blonde hair and a man in a dark shirt. The bottom half shows the lower bodies and legs of people, with one person wearing a bright green mesh skirt and another wearing a red patterned skirt. The text box in the center contains the message: 

Take conversations off  
the runway (offline).