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Back to the Future: a History of ACOG in Social Media's Golden Age

ReachMD

The American College of Obstetricians and Gynecologists

**Annual Scientific Meeting** 

Dr. Birnholz:

Coming to you from ACOG's Annual Scientific Meeting in San Francisco, this is ReachMD, and I am Dr. Matt Birnholz. I'm joined by Dr. Nathaniel DeNicola. He is a senior fellow with the Penn Social Media and Health Innovation Lab and a practicing OB/GYN.

Nathaniel, good to have you with us.

Dr. DeNicola:

Thank you, great to be here.

Dr. Birnholz:

So, you are in a position that I love, just the title of it alone, part of the Health Innovation Lab. That to me is fantastic. Tell me a little bit about that before we move in on the specific area that you helped really promote, which is the social media golden age within ACOG, but tell me a little bit about your position.

## Dr. DeNicola:

It's really a fantastic department that Penn has cultivated over the last 2 years. It began as kind of an extension of one of the research projects conducted out of the Robert Wood Johnson Clinical Scholars program, which constructed a contest to use mobile devices, mostly Smartphones, to map out all of the defibrillators, the AEDs, in the City of Philadelphia, with the intent that if these were rapidly accessible, then they could save lives in the way that defibrillators truly can. The trick for the AED is that it has to be accessed almost immediately to really have its mortality benefit, and often—we're sitting here in a hotel now—if you look at any hotel or major center where you might think an AED would be located, even if one is there, people don't know where it is, and so the advantage of this is that it could actually show you a picture of what it looked like in the location. And this really spawned a whole host of other social media scholarly investigations with topics from crowd sourcing to the use of mobile health, and from this one project, in addition to the Penn Medicine Innovation Center, it was a very natural marriage of those two interests. And so it has been a fantastic group of both kind of established faculty and researchers, as well as a great deal of young energy from either young fellows in the research realm, as well as younger students, medical students, PhD candidates, recent PhD graduates, who all are drawn to the same intersection between this rapidly developing space of social and digital media and how it intersects with healthcare.





## Dr. Birnholz:

And in that regard, you moved in on a particular projects with ACOG to kind of help demonstrate and look, really investigate, what it was that they were doing to get to that next level in the social media space, but as you and I talked a little bit offline, what I loved about what you had said is that this was a particular project that helped you leverage some data that otherwise for most researchers out there just kind of goes into the dust bin. So, tell me about that.

## Dr. DeNicola:

It's absolutely true. This would have been completely uncaptured except for the fact that years ago, maybe it was 6 years ago now, I started a professional site on Facebook, which was a little bit of a deviation from how most of my friends and family and colleagues were using Facebook at that point. It was largely personal use. There were certainly some professional sites. I can't at all say that we were the first, but it was pretty early on in the game to use Facebook as a professional outlet. And because it was a professional profile and created that way within the Facebook infrastructure, all of the insights were captured, and it was really kind of a glorious moment when I realized all this data would be there and captured automatically and reviewable and I could track almost real-time which posts were getting a great deal of attention, and all of the externalities of that really were much more than I had anticipated in the beginning. And so it was kind of a treasure trove of information just woven into my initial goal, which was just to use Facebook as an educational medium for things that I was interested in, and I thought that other people within obstetrics and gynecology would, or should, be mindful of.

Right. So, let's get into the meat of that article. Reiterate for me, what was the article called?

So, the article was—I coined the phrase from the movie series—Back to the Future...

Dr. Birnholz:

Dr. Birnholz:

Dr. DeNicola:

Perfect.

Dr. DeNicola:

... a history of ACOG in Social Media's Golden Age. And I think the byline was something to the effect of *Investigating How a Medical Professional Society Came to Adopt Digital and Social Media*.

Dr. Birnholz:

And in that article, you started getting into the idea of the unprecedented power, as you put it, of social media and digital media. What did you mean by that?

Dr. DeNicola:

Well, I think it applies to both the micro and macro scale, and I'll explain what I mean by that. On the micro scale, and I'm going to shamelessly quote Jerry Seinfeld here...

Dr. Birnholz:

Perfect again.





#### Dr. DeNicola:

... it really is an intimate relationship we have with our phone. We cannot go anywhere—I'm speaking more for men here now as the characters of the phone—but we, humans, men and women, really can't go anywhere now without this black rectangle somewhere in our pocket, or somewhere in our purse, or somewhere on our body, and we even have this very intimate relationship with it. Right now anybody listening to this, or you and I, we know how much battery we have on our phone. We know right where we're sitting. I'm at about 30%, and I feel kind of nervous about that.

## Dr. Birnholz:

I'm feeling pretty good at 73% right now.

#### Dr. DeNicola:

And you should. I'd feel better if I was at 73%. Not to go on with Jerry Seinfeld, but really, even the diction that we use, the terms we use, when you talk to someone and your phone is about to die, "Sorry, I can't talk to you now. My phone, I'm about to die. I'll see you tomorrow." You know, we've become completely and totally interfaced with this mobile technology, and that extends to the macro level. So, it really creates what Al Gore has called a planet-wide extension of the human nervous system, this ability for—I'll use Twitter just for now, but it could apply to any social media—to simultaneously connect the thoughts, feelings and emotions of really the entire world's population. Now, of course, you make that much more specific. It can be much more geographically located. It can be specific to certain interests or different areas, but we really do have this extension of the human nervous system. And you can even use—again, I'll stick with Twitter here—you can use Twitter to take the pulse or take the mood of different populations. And to really bring this home in an example, the Penn Social Media and Health Innovation Lab recently published a study that showed you can correlate the mood of a population based on the diction in the content of a Twitter post, and a negative or kind of a more angry mood based on all those words correlates very strongly with poor cardiovascular health; in fact, more strongly than some of our typical markers.

## Dr. Birnholz:

Fascinating, fascinating. And you had kind of gone another step to say, listen, it's not just that we have unprecedented power here in this space, it's that the medical community needs to embrace it. There is an obligation here. How is the medical doing in that regard from your vantage point as somebody who's right on the cusp of all this cutting-edge technology?

## Dr. DeNicola:

In medicine we grade everything. I would give us a B, a solid B. I think we're slow to adopt initially, and I absolutely understand why. For one thing, doctors, healthcare providers, feel like we do have a very important role in society, and part of that role is to do no harm and in every possible way protect the patient/doctor relationship. And I do think there was a lot of legitimate concern about how social media, which is now just out there everywhere, essentially unregulated, could compromise any part of that relationship, and I still think that's a very important consideration to keep in mind, so I definitely understand healthcare's reticence to adopt it immediately.

Now, that said, we also are scientists, and we need to be fluent and facile in new scientific adoptions and new innovations, and we should be able to balance prudence and progress. And so, when something becomes so ubiquitous in the population that, as I said, it's this planet-wide extension of the human nervous system -- I think I've quoted this -- I don't think anybody else has come up with this. There's kind of a novo Mark Twain version of his famous quote. "A Tweet can travel around the world while cable news is putting its make up on." This has become so ubiquitous and so fast and so integral in society that we have an obligation, because we can't take care of patients in a vacuum. We can't isolate ourselves from this planet-wide phenomenon and expect to be providing good care, and we would miss so many opportunities, because once you approach it as something that is manageable, that is not kind of a ticking time bomb waiting to go off but instead is a new vehicle waiting to be driven and explored the same way that automobiles and air transportation has taken off in the past, once you learn that it could be more like that—which, of course, needs its seat belts and antilock brakes and air bags—and that you can use all these things, then there's just a world of opportunity that can be capitalized on and





integrated and really improve our healthcare system.

## Dr. Birnholz:

And it's a really good point. There's, of course, a lot of resistance out there in the medical community, especially the more senior ranks, those who say, "My Pinto works fine," to put your analogy into use, but as we move forward into the next generations where people of your age bracket, for instance, even millennials, as they become the senior physicians, where do you see the adoption rate, not just to social media but maybe the next levels of data acquisition of sharing? Where do you see that going?

#### Dr. DeNicola:

That's a fantastic direction to look towards, and I think that really is probably the most important part of my message, which is we need to be at the cutting edge. We have to be careful, because as I discussed, there are perils for medicine to use some of these things, and I think some of the hesitation or some of the kind of precautionary principles were specific about social media. I don't think that we are slow adopters for everything. And we have come around. I think we weren't necessarily the last to adopt it. But the key thing is that this is not at all a fad or the end game, and in fact, this is just opening the door to a whole new arena of opportunity. And I'll be more specific. So, when it comes to social media, for example, a lot of people think of that as Facebook and Twitter. It really also includes apps and text messaging and mobile devices. And once you make that connection, there's a very clear sort of connecting the dots toward mobile health, wearable devices, and then this whole new space, for lack of a better word there, that will be the patient-generated data, and this is everything from in a very simple version, kind of like steps on a pedometer, to much more we would consider—maybe not more—but other meaningful information such as vital signs, weight. There are apps out there right now that can use Wi-Fi to sync measurements on a scale to a kind of collecting system. Blood pressure is something that is already being integrated into apps that will send the information to physicians, vital signs, and it's just the beginning. So, there's going to be a whole, again, series of things that have to be sorted out for what do we do with this patient-generated data. How much can we trust? How much do we have to act on? Who's responsible for it? What do you do when there's an alarming blood pressure, for example? And that's kind of one iceberg.

You mentioned the other thing of transparency. We are in a time when we truly could have much greater data-sharing via electronic medical records. These do not have to be isolated in a closed system in one hospital system. They could be easily transferable. They're not yet, partially for fear that there would be a healthcare version of a WikiLeak, and suddenly it's not e-mails, it's very sensitive health information.

## Dr. Birnholz:

Privacy is the perennial challenge here.

# Dr. DeNicola:

Absolutely, and that will be another bridge to gap, and all of these questions, and that could even go into things like not just transparency about diagnoses but also about billing and price transparency. There's been a lot written on why there is variation in prices for, say, one particular hip surgery. One part of the state is twice what it will be in another part of the state, but price transparency could potentially fix that, and so there are so many different applications of this continued extension of—I've sort of created an umbrella term—of the social age, but also the umbrella of the information and digital age that's still expanding that medicine will need to adopt and adopt quickly and adopt carefully, because there will always be pitfalls, and privacy will be prime among them, but that won't be enough to stop us from using it.

# Dr. Birnholz:

Well, let me not lose sight of one of the targets here, one of the subjects, because you did spend a lot of time specifically investigating ACOG on this. How did ACOG measure up? Did they measure up all right?





## Dr. DeNicola:

ACOG did extremely well. They, I think, were an example of how a lot of physicians responded, which was prudent at first and reserved, but for good reason, but once they learned what their seatbelts and their antilock brakes and their safety measures were going to be, they became—you know, they say there's no zealot like a convert—very progressive adopters, and they did it in a very professional way, which was really the goal. And so, in an article we kind of trace the step-wise approach. It didn't happen all at once. It began sort of very cautiously with some scientific literature. The main publication for OB/GYN, at least for ACOG, is *The Green Journal, Obstetrics & Gynecology.* They were one of the first to use social media, and it was clearly very educational. "Here are articles. Please read at your leisure." And from that there was some familiarity and comfort with using this in a way that didn't become controversial or problematic. And from there ACOG was very progressive in adopting a variety of formats, so not just the Facebook and Twitter, but also video, educational videos within YouTube. And I think, fittingly, one of the first videos that was released there was kind of a guideline on how to manage a professional set of behavior, professional kind of conduct of behavior as a physician using social media. And they also have kind of expanded their digital presence in a very environmentally friendly way. So, most of the education materials are now available not only in the old-fashioned format where you have to receive the books in the mail but in digital formats. There's the E-Prologue I think we mentioned in there in the article. All of the conferences now have electronic agendas. And so once the perils seemed manageable—and it was a very thoughtful and dedicated process—they really have used it to engage the membership in a whole new and, I think, exciting way.

## Dr. Birnholz:

And do you think that—and I probably shouldn't even put it in the framework of whether you think that—but did ACOG observe any measurable changes through this early adoption? Did they see any kind of benefits regarding their membership, regarding their leadership, regarding the way they communicated things out? Was there anything that was able to be reported back to them as feedback that said, "You're doing a really good job with this"?

## Dr. DeNicola:

Well, not surprisingly, the young, what's termed Junior Fellow Membership was one of the best early signals that membership would respond well to this, and that came both in the form of what I would consider, perhaps, the most important benefit of social media in general, which is bidirectional flow of information. It sounds maybe obvious or commonplace, but when you think about it, most media really is not bidirectional. The typical way it's transmitted, television and radio, completely unidirectional. This bidirectional flow really does give everyone a voice, and that was immediately seen in terms of the response to Facebook pages, Facebook posting, and it wasn't just in people adding comments. It was also in what postings are getting the most attention, so what post generated the most virality score? And while the science of that has to be taken cautiously, because we know that people who post and comment often present an outlier, either positive or negative, still the overall gestalt of that did provide a pulse for certain parts of memberships, specifically the younger generation.

Also, the attendance and enthusiasm around at least one particular conference, the Congressional Leadership Conference, measurably swelled with the integration of social media. And in the article we cite both the participation—participation numbers rose at a rate much higher than would be expected without other factors—as well as general contributions.

And certainly there are other things that factored into there. The political climate always factors in. Election year or not is always a factor. But I don't think it's going out on a limb to say that the social media presence really did help solidify the millennial generation and the junior fellow generation kind of active participation and enthusiasm.

## Dr. Birnholz:

So, if we go back to the broad-based view again before we close and consider the experiences that you had with this investigation, what you kind of gleaned from it, the work that you're doing at the Health Innovation Lab, what would be your recommendation to some of our audience base who might be part of organizations, societies, or might even be more independent but are trying to leverage this form of communicative technology? What kind of points would you give them as ways to move forward and maybe some to-do's and to-don'ts?





## Dr. DeNicola:

I would say there are a few key points. The first is the balance of wisdom and progress that comes from giving the young membership a voice is invaluable. I would definitely not say that the young membership should be given sort of the keys to the palace and let to rein free, but the balance of the present leadership really giving a voice and really listening to the youth of an organization is invaluable, and it really does drive an organization forward when they work together. The second thing is that any organization, when you're talking about spreading out risk, you want a diverse portfolio, so at least some percentage of that should allow for rapid validation programs—and that's what I mention in the article is trial and error—that can sometimes run counterintuitive or it can almost be antithetical to the precautionary principle, which is do no harm. In do no harm you wouldn't just try things and not know what's going to happen. But at least a small percentage of the overall risk can be stratified and at least a small percentage of resource can be put into these trial and error rapid validation just to learn what might be successful and what could be harmful. So, I think any organization should have that as part of their portfolio.

And the other thing, and I kind of already mentioned it, but bidirectional flow of information is crucial to really give membership a chance to not only be heard but be counted. You can kind of think of any Facebook or Twitter post as a mini example of democracy where people can vote on or interact with what they think is important. And that information when it gets back to leadership will only help move things forward in a way that truly represents the interests of the whole organization, so I think those are crucial.

As far as do's and don'ts, I think I kind of covered the do's. I think those are the list. For the don'ts, the main thing I would say, don't allow fear of the unknown to create paralysis and stasis in the organization.

Dr. Birnholz:

Or as you put it, I believe, paralysis by analysis.

Dr. DeNicola:

Yes, right, paralysis by analysis, yes.

Dr. Birnholz:

A phrase that many in our audience will be very familiar with.

# Dr. DeNicola:

I mean, it happens to us all, especially in a very hyper or at least very analytical field. We can reach that point where we are so cautious to avoid any risk anywhere that we become incapable of making a decision or more forward, and so, there's no doubt there will be concerns, and there still are concerns both with how to manage social media and how to manage what comes next, and we've kind of referred to it, the data transparency, the patient-generated data, privacy issues in EMR, but that can't be enough to stop us from engaging. And so the biggest "don't" I would say is don't stop learning, don't stop investigating, don't stop adopting this new technology and innovation. Not to put too fine a point on it, but most of the new innovations out there are scientific in their basis, and at some fundamental level we are scientists, and we should always be looking at what science can offer next and having the open-mindedness to at least give it a chance and see where it can go.

## Dr. Birnholz:

Hopefully our audience will approach this particular segment with an open mind as well, because whether they like it or not, this topic is going to keep reemerging, and certainly ReachMD is not averse to exploring it from every potential angle. And I'm really happy that we





had a chance to talk with you about this vantage point on social media from both the perspective of ACOG and in a broader context as to where we're headed, because this is important. This is very important. So, again, I have to really thank you for your time.

I have been speaking with Dr. Nathaniel DeNicola. He's a senior fellow with the Penn Social Media and Health Innovation Lab—again, I love the fact that there is such a lab at Penn—and practicing OB/GYN.

Again, Dr. DeNicola, great to have you with us today.

Dr. DeNicola:

Thank you so much.

Dr. Birnholz:

If you have missed any part of this episode, do visit ReachMD.com. Download it, check it out, comment on it. I can't emphasize that enough, especially given the context of this interview. Dr. DeNicola will probably do the same. You'll probably be able to reach him there. Make sure that you comment on it, and we'll talk to you all again soon. Thanks again for listening.