

**Looking through the Looking Glass:  
The Digital Legal Horizon  
for Solo Practitioners**

*Digital Health:  
Physical, Genetic, Medical & Legal*

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SOLO PRACTICE UNIVERSITY®  
the 'practice of law' school

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**DISCLAIMER**

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**Overview**

- Health 2.0
- E-Health
- Wireless Wellness
- Digital Diagnosis
- Tele-health

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### The Context

Digital Health and Wellness is the branch of digital citizenship that focuses on using technology safely and appropriately

<http://cunedigitalcitizenship.wikispaces.com/Digital+Health+and+Wellness>

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### The Context

Digital health is an emerging industry at the intersection of technology and health, radically changing how we access and use personal health information. It unites smartphones/tablets (new means of 24/7 access to information), with big data in the cloud (enabling personalization), game dynamics / mechanics (new engagement mechanisms), the increased engagement of physicians online (interactive doctors), and a vibrant social conversation about health.

- SXSW Excerpt:  
[http://schedule.sxsw.com/2012/events/event\\_IAP10591](http://schedule.sxsw.com/2012/events/event_IAP10591)

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### The Context

It seems that the stars are aligned. These glimmers of facts, figures, innovation and needs are converging on the year 2013. And the result promises to be an inflection point for digital health. The curve of innovation will shift and place us all on a new course for managing disease and wellness.

<http://www.forbes.com/sites/johnnosta/2013/01/02/2013-the-year-of-digital-health/>

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**Digital Health v Health Technology**

- Technology in terms of equipment
- Information Storage (patient records)
- Physical Innovations: robotic limbs
  - Mask Gives You Superhuman Abilities of Sight and Hearing, Mashable, 5/6/13

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**Digital Health's 8 Convergent Elements**

1. Wireless Sensors and Devices
2. Genomics (A, C, G, T = digital)
3. Social Networking
4. Mobile Connectivity and Bandwidth

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**Digital Health's 8 Convergent Elements**

5. Imaging
6. Health Information Systems
7. The Internet
8. Computing Power and the Data Universe

*Dr. Eric Topol, "The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Health Care"*

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**Forbes: Digital Health's 9  
Convergent Elements**

- 1. Explosive New Technology
- 2. The pressing need to advance healthcare and the Affordable Care Act
- 3. The Caldron of Connectivity
- 4. The Power of Cool
- 5. The empowerment of the "quantified self" in health

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**Forbes: Digital Health's 9  
Convergent Elements**

- 6. Pharma's Search for New Meaning
- 7. Big Data & the Electronic Medical Records
- 8. Money
- 9. The Voice of Brilliance

<http://www.forbes.com/sites/johnnosta/2013/01/02/2013-the-year-of-digital-health/>

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**UNICEF Report on Future of  
Health**

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### Bio-Medical Printing



<http://qz.com/78877/how-soon-will-we-be-able-to-3-d-print-entire-human-organs-sooner-than-you-think/>

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### Bio-Medical Printing

#### Legal Concerns:

- Who owns the “pattern” of the tissue or organ?
  - Designer Organs
- Cost
- Regulation of Quality
- Regulation of Distribution
  - Discrimination???

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### Digital Global Health Concerns

- Access to
  - Information
    - Alerts: When there is danger
  - Knowledge
  - Experts

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Digital Global Health Concerns

- Obstacles to Access
  - Cost (\$\$)
  - Technology
  - Communications Channels

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Digital Global Health Concerns

- Disease
  - Promote Health
  - Preventive Measures
    - Treatment vs Cure
  - Prevent International Spread

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Digital Global Health Concerns

- Lifestyle Conditions
  - Diabetes and obesity
  - Mental illness
    - Internet Addiction/Facebook Psychology
  - Substance abuse/use disorders, including tobacco use
  - Injuries

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### Digital Global Health Concerns

- Genetic Concerns
  - Bio-Piracy
  - Clinical Trials
  - Genetic Discrimination
  - Patents on Human Genes Valid?
  - <http://www.post-gazette.com/stories/business/legal/the-us-supreme-court-weighs-whether-a-private-company-can-patent-human-dna-material-686453/>

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### Digital Global Health Concerns

- Insurance Coverage
  - Big Data
  - Privacy
  - Rejection vs. Mandatory Insurance

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### How Used?

- Health Technology & Digital Products
  - \$14 Billion Market
  - Apps & Mobile Health Market
    - Wearable Sensors/Feedback Technology
      - Proteus Digital Health feedback System
      - <http://proteusdigitalhealth.com/technology/>
      - Google Glass

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How Used?

- Health Technology & Digital Products
  - Monitoring Apps for Preventive Healthcare
    - “The future of health is your smartphone”
  - Gamification (Motivation, Fitness)

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How Used?

- Health Technology & Digital Products
  - Ergonomics
  - Virtual Treatments/Cross-cultural Medical Teams (Sykpe and Beyond)
  - Regeneration
  - Robots

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How Used?

- Health Technology & Digital Products
  - Patient Independence
  - Accessibility for the Disabled
- Social as Holistic Health Helper
  - Communities as Resource
  - Communities of Support

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## Regulation

- Health & Technology Regulation
  - Genetic Information Nondiscrimination Act
  - HITECH Act (technology breaches)
  - HIPPA (privacy)
  - Health Information Technology for Economic and Clinical Health Act
  - Electronic Health Records Rule
  - Patient Safety Rules/Bill of Rights

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## Regulation

- Health & Technology Regulation (Intl)
  - United Nations Institute for Training & Research (UNITAR)
  - World Health Organization
  - 1948 Universal Declaration of Human Rights (Right to Health)
    - Connection between Health & Human Rights
  - International & Global Health Institutes

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## Resources

- Digital Health Summit  
<http://www.digitalhealthsummit.com>
- Forbes: Digital Health for Dummies  
<http://www.forbes.com/sites/johnnosta/2013/05/19/digital-health-for-dummies/>
- Digital Health Coalition  
<http://digitalhealthcoalition.org>

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## Resources

- Digital Health Conference  
<http://digitalhealthconference.com>
- NY Digital Health Accelerator  
<http://digitalhealthaccelerator.com>
- Future of Health UNICEF Report  
<http://www.psfk.com/publishing/future-of-health>

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## Q&A



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