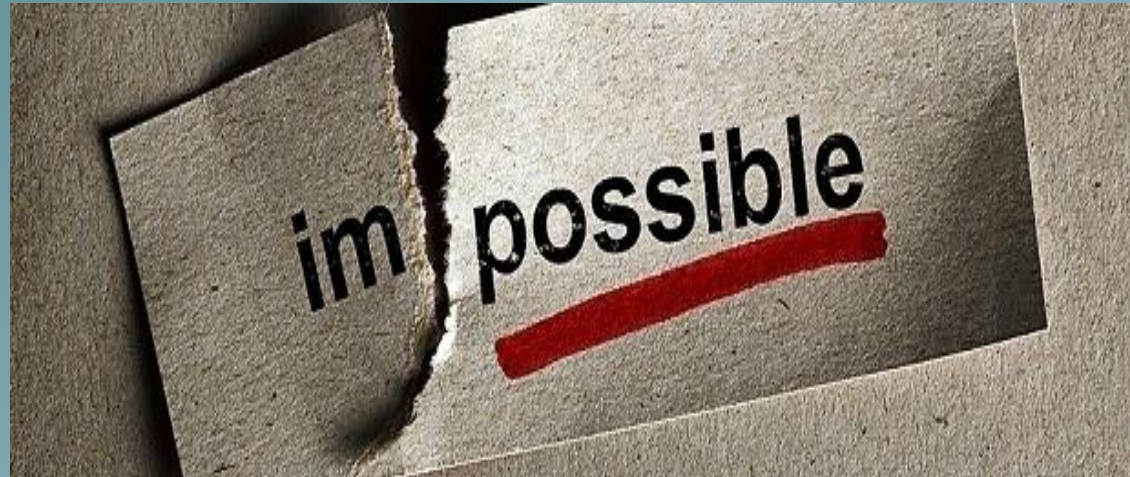


Advancing Nursing & Midwifery through Innovation and Leadership



Patricia E. Thompson, EdD, RN, FAAN

Learning Objectives

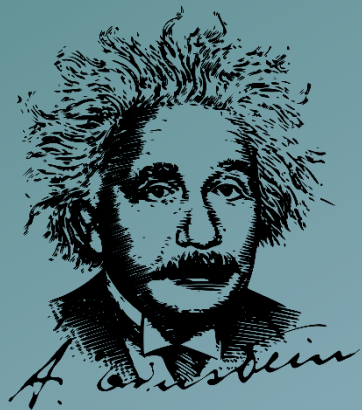
- Apply principles and strategies to advance the profession and improve global health.
- Discuss proactive behaviors most effective in creating solutions to emerging global health care challenges.
- Describe your personal vision, purpose, and passion to be an innovative leader.

Innovation is essential for the future of
global health and the profession.



“We cannot solve the problem with the same
thinking we used to create them.”

Albert Einstein



Innovation

“Something different that has impact.”

Scott D. Anthony

Importance of Innovation

“To solve problems today in a way that positions us to address unforeseen problems of tomorrow.”

www.rockefellerfoundation.org

To solve problems we need visionary,
creative ideas and innovative solutions

=

We Need More Leaders!

(www.imagination3.com.au)

Innovation

- Outcomes with Practical Applications
- Based in Science
- Creating Solutions

Need Innovation to Address:

- Improved Quality Care
- Increasing Demands in Health Care
- Global Workforce Shortages

(www.slideshare.net)

Success across time can't sustain
growth without innovation.

Without innovation
and change,
organizations
stagnate and die.





The Story of an Aged Organization

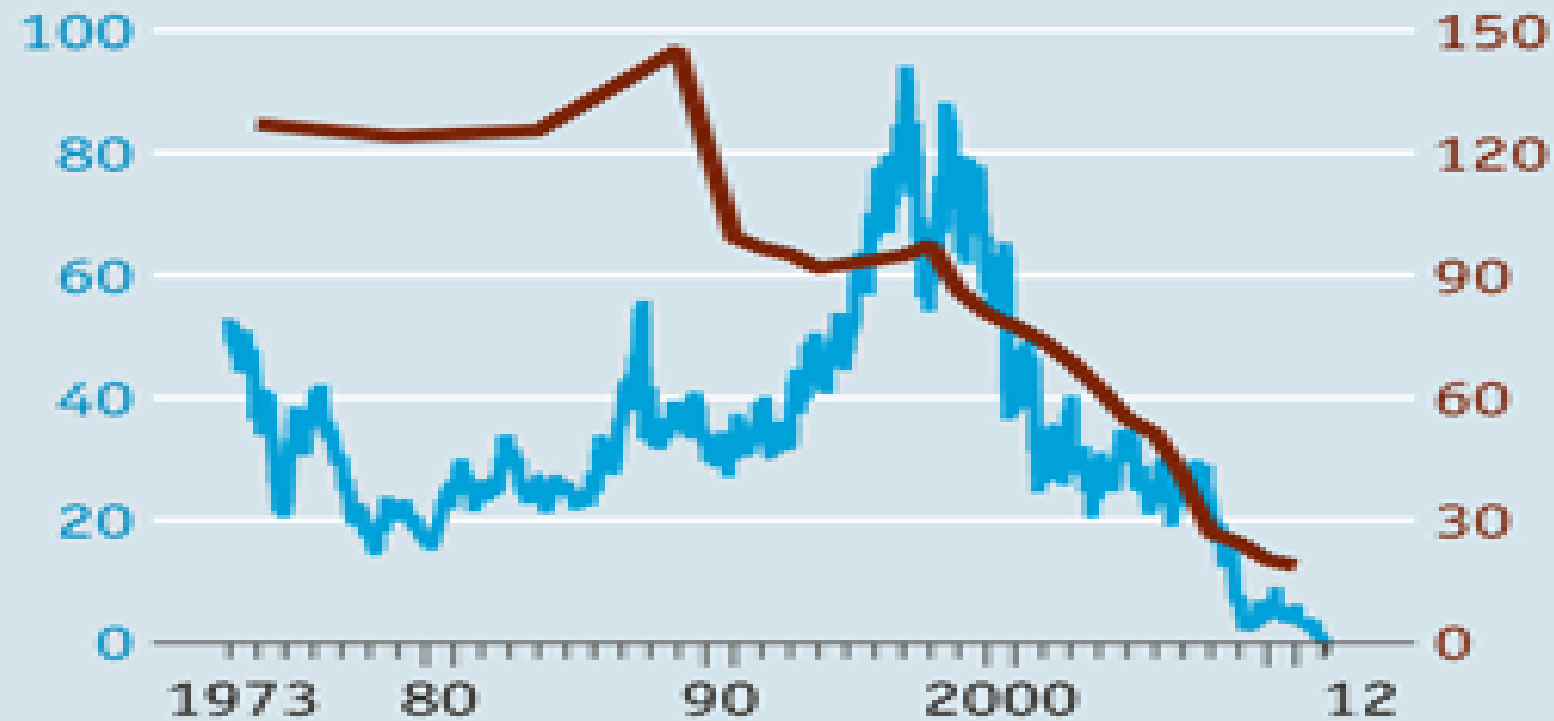


An ugly picture

Kodak's:

share price, \$

employees, '000



Sources: Company reports; Thomson Reuters

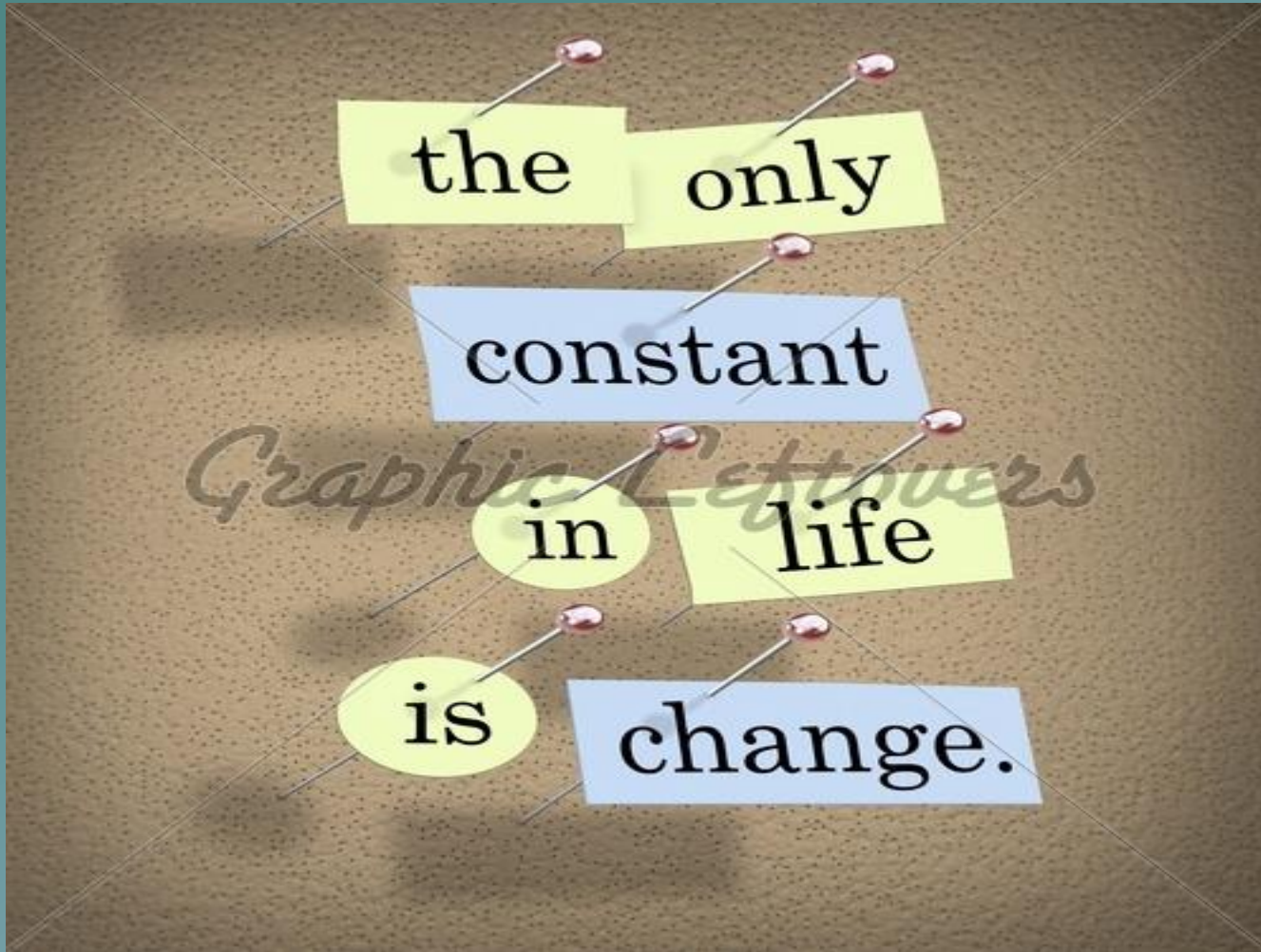
Innovative Environment:

Leaders must role-model positive and adaptive responses to change.



Innovation Shouldn't Happen by Accident

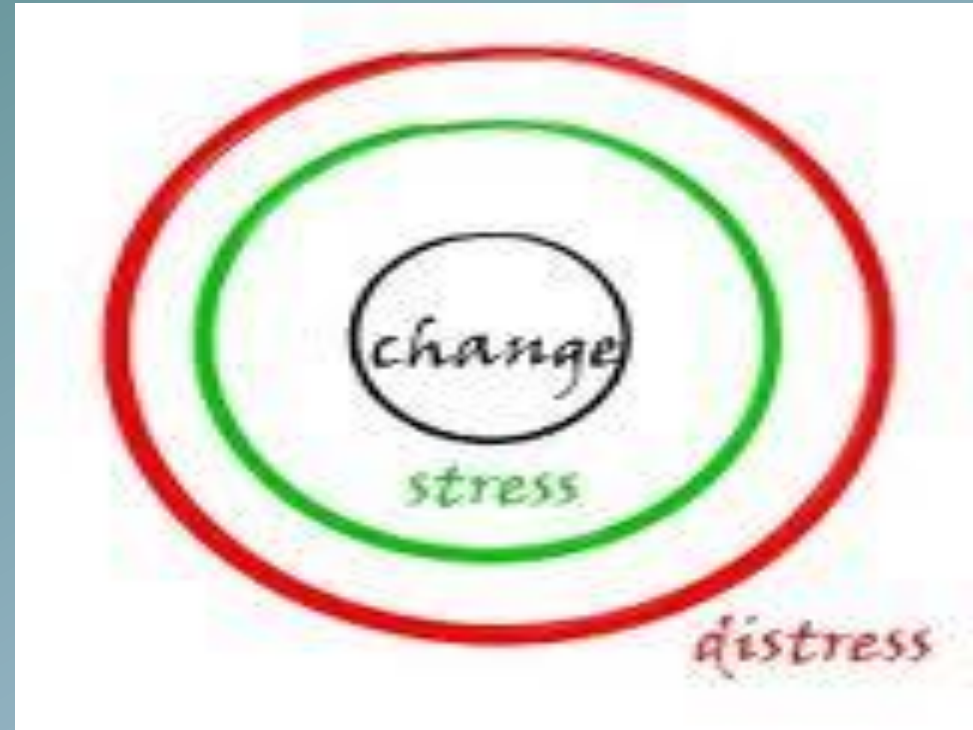






**THERE'S NO
SUCH THING AS
SMALL CHANGE.**

Regardless of the type of change, all major change brings feelings of achievement, pride, loss, and stress.



What is your risk-taking propensity in attempting innovation?



Sometimes
foolhardy?

Not well
thought out?



Rarely Wise?



Whenever possible,
all those who may
be affected by
innovation should
be involved in
planning.



Technology will continue to
bring both challenges
and opportunities in the future!





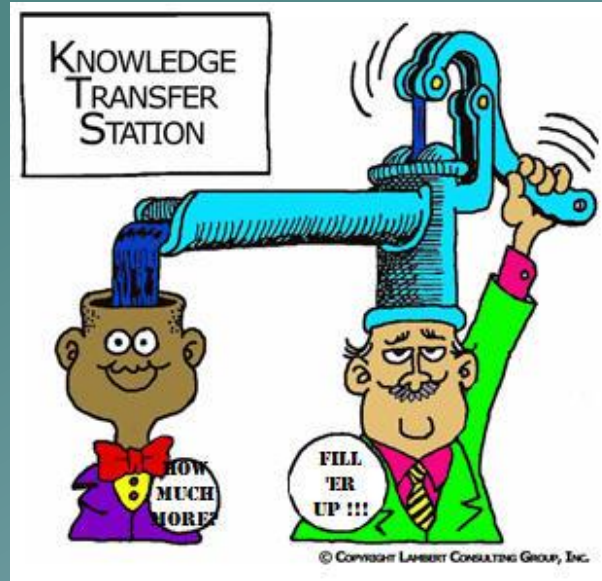
Six Innovative Technologies that have Changed The Face of Healthcare

1. Genetics and genomics
2. Less invasive and more accurate tools for diagnosis and treatment
3. Robotics
4. Biometrics
5. Electronic health records
6. Computerized physician/provider order entry and clinical decision support

Emerging Critical Skill Set:

**Having Expertise in Knowledge
Information, Acquisition, and
Distribution**





*Source: Carroll, J. (2001-2016). Trend:
The future of knowledge..... Retrieved
From
<https://www.jimcarroll.com/2011/10/trend-the-future-of-knowledge/>*

In a profession where knowledge doubles every eight years [\(Carroll, 2001-2016\)](#), nurses can no longer be the keeper of knowledge; instead they must become the master of collecting and sharing that knowledge with others.

Emerging Critical Skill Set:

Understanding and Using Genomics in Practice



Technology as a Leadership Competency

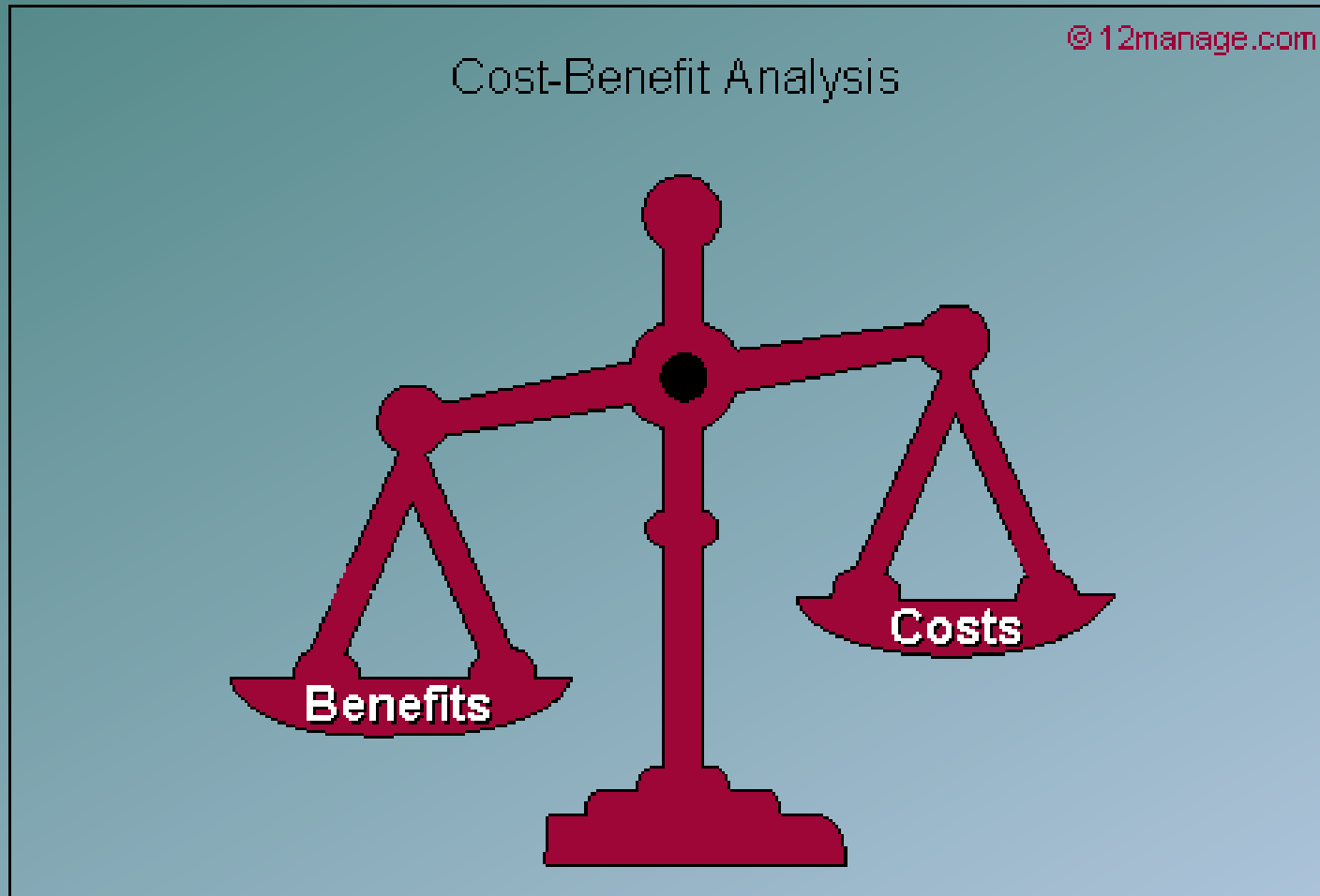
The ability to integrate technology which facilitates mobility and portability of relationships, interactions, and operational processes.



Leadership Challenges in Integrating New Technology

1. Balancing the human element with technology
2. Balancing cost and benefits
3. Training a technology enabled workforce and assuring ongoing competency
4. Assuring that technology use is ethical

Is need driving technology or is technology driving need?



We need to avoid being enticed by technology for its own sake—and be clear on the precise problem the new technology is designed to solve.



Perhaps the greatest
challenge for healthcare
leaders?

Balancing
technology and the
human element



Other Challenges?

- Ethical Considerations
 - Difficult Choices



Wadhwa (2014) suggests that with the pace of technology growth, we have not been able to come to grips with what is ethical, let alone determine what laws or rules should be in place.



Source: Wadhwa, V. (2014, April 15). Laws and ethics can't keep pace with technology codes we live by, laws we follow, and computers that move too fast to care.

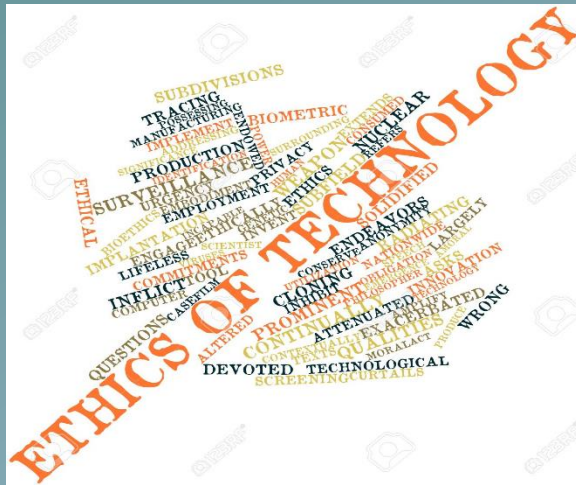
<https://www.technologyreview.com/s/526401/laws-and-ethics-cant-keep-pace-with-technology/>

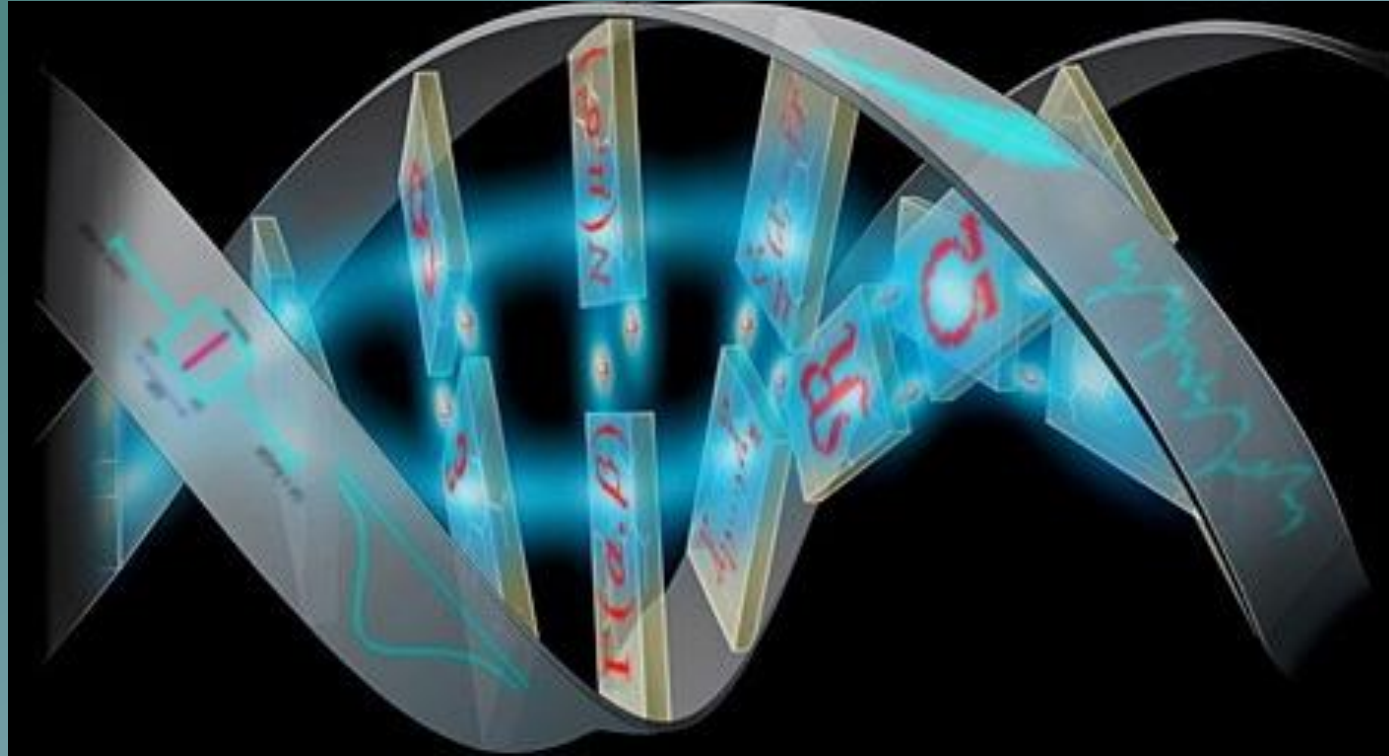
Ethical Considerations:

- Dignity/autonomy
- Technology as a potentially cold/dehumanizing part of care
- Technology as a potential contributor to disparities of care
- Nursing's and midwifery's voice



Evolving technologies offer great opportunities to improve the quality of life, but technology alone is not the answer. We must consider, however, what technology is best in each setting and how it should be used ethically. In addition, care providers must understand every technology's limitations as well as its benefits.





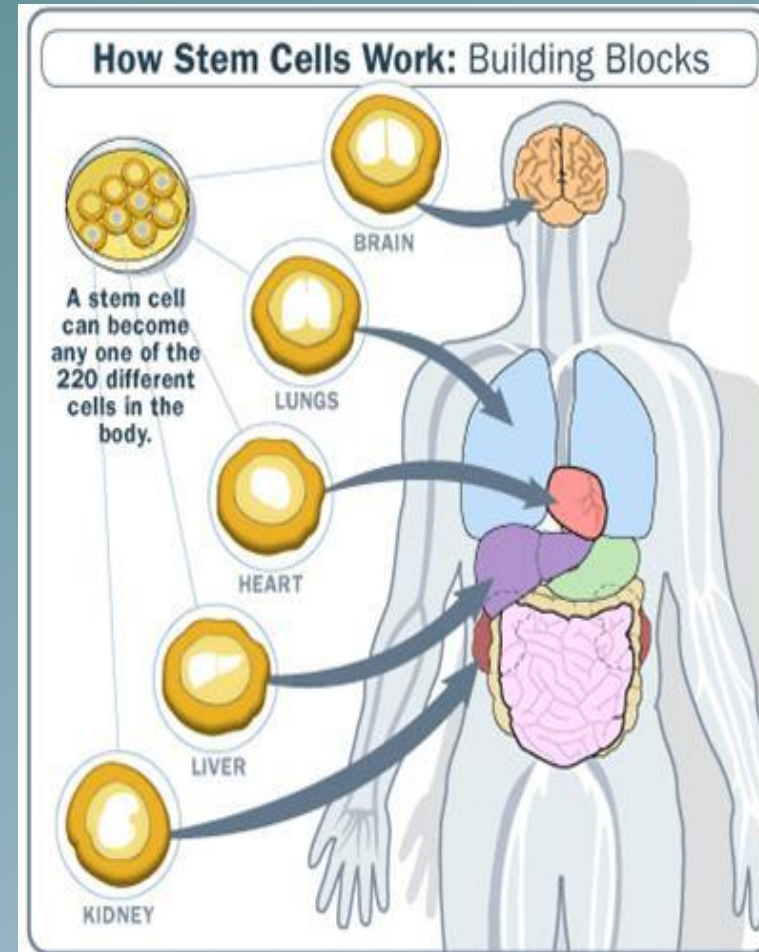
GENETICS AND GENOMICS

Carroll (2001-2016) suggests that by the year 2020, the healthcare system will have transitioned from one which “fixes people after they’re sick” to one of preventative, diagnostic genomic-based medicine where patients will be treated for conditions we know they are likely to develop.

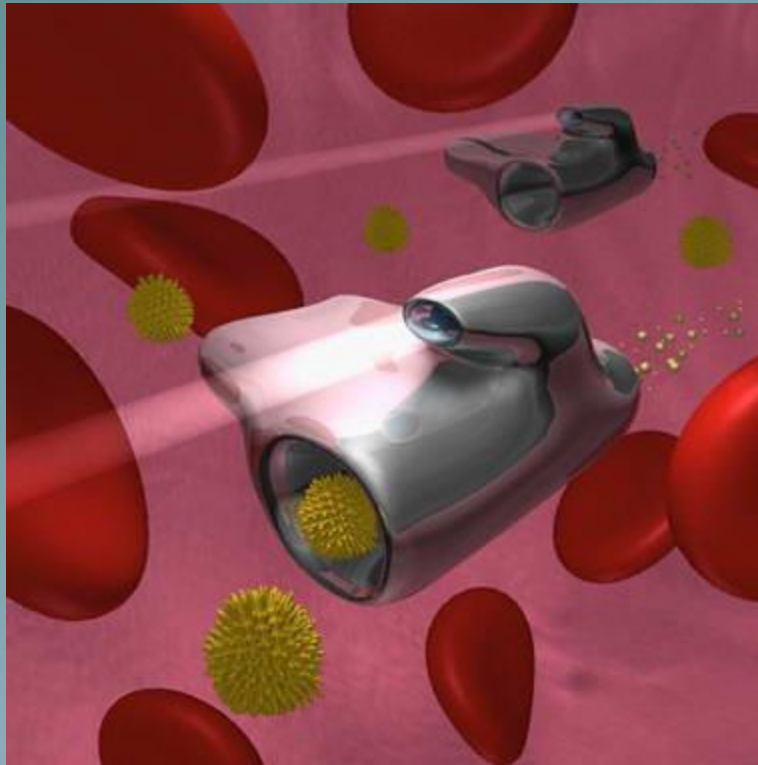


Source: Carroll, J. (2001-2016). *Healthcare 2020: The transformative trends that will really define our future*. Retrieved from <https://www.jimcarroll.com/2010/10/healthcare-2020-the-transformative-trends-that-will-really-define-our-future/>

Organ transplants will no longer be needed because we'll be able to grow new organs from a patient's own tissues.



Circulating nanobots will identify and repair disease processes.

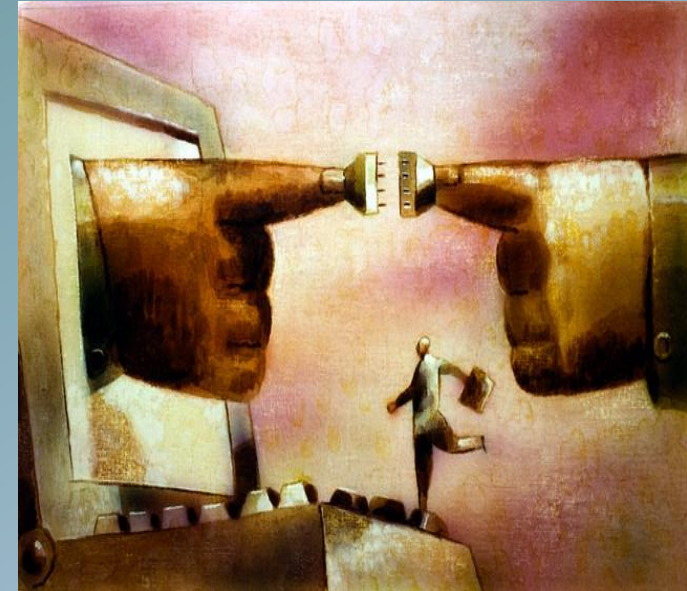


3-Dimensional (3D) Printing



Skill Sets Needed to Merge Innovations and Technologies

1. Being able to use technology to facilitate communication and relationships.
2. Having expertise in knowledge information, acquisition, and distribution.
3. Understanding and using genomics.



For example,

Genetic testing can now prevent disease, but it also creates a new set of moral, legal, ethical, and policy issues:

- If the testing is useful, how do we provide equal access? What are the potential privacy issues and how do we protect this very personal and private information?
- Which genetic abnormalities warrant some kind of intervention? How do we ensure that the information provided by genome analysis is correct (especially in the case of at-home tests)?
- Are we headed towards a new era of therapeutic intervention to increase quality of life, or a new era of eugenics?

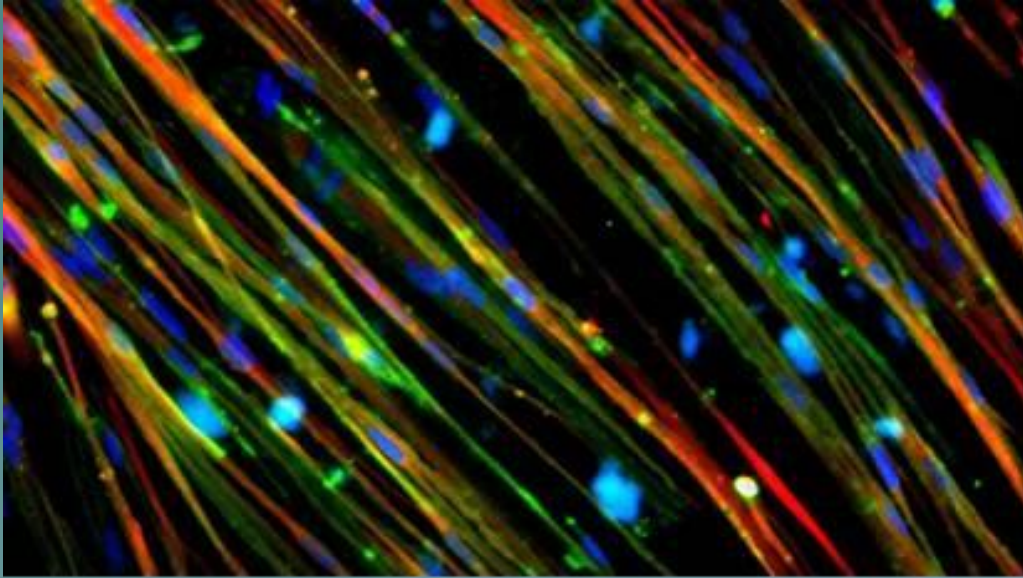
Source: John J. Reilly Center. (2015, para 2). Genetic testing & personalized medicine. University of Notre Dame. Retrieved from <http://reilly.nd.edu/outreach/emerging-ethical-dilemmas-and-policy-issues-in-science-and-technology/personalized-medicine>

I've been genetically sequenced!!



But it's not something that should
be taken lightly.

CRISPR/Cas9



Muscle cells, edited with CRISPR to fix the mutation that causes muscular dystrophy. These cells are in a lab dish, though, not in a person.

Definition:

- Clustered **R**egularly **I**nterspaced **S**hort **P**alindromic **R**epeats/CRISPR associated protein 9
- Genome (gene) editing: technologies that enable scientists to change an organism's **DNA**

(Source: <https://vitals.lifehacker.com/what-is-crispr-and-what-can-it-really-do-1826000682>)

Strategies and Actions

Avoid Barriers

- ✓ Afraid to Fail
- ✓ Reluctant to Change
- ✓ Custom and Tradition
- ✓ Lack of Support and Resources

- Be a passionate, visionary, innovative leader with purpose
- Belong to and be active in professional associations
- Support global health initiatives
- Collaborate within and across disciplines
- Develop and support leaders

Dewitt Jones

National Geographic Photographer



Be the best leader *IN* the world?

Be the best leader for the world

- Act with service and grace.
- Make a contribution through action.



D. Jones

Celebrate as you continue your journey!

