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OUTSOURCING HUMAN REPRODUCTION: EMBRYOS & SURROGACY SERVICES IN THE CYBERPROCREATION ERA

J. BRAD REICH* & DAWN SWINK**

"Cyberprocreation": using the Internet to create human life

INTRODUCTION

Traditionally, a child was conceived via male-female intercourse, but the Internet provides many more possibilities. In 2011 Patrick, a single, sterile man wants a baby, but does not want to adopt.1 He goes online and performs a Google search for eggs2 and sperm3 to discover millions of ready suppliers.4 Patrick purchases these materials through PayPal.5 He

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** J.D. Drake University Law School, Associate Professor, University of St. Thomas. This article is dedicated to my sister, Peg Grundmier.

1. Patrick is a fictional character used for illustrative purposes.


4. Although Patrick is intrigued by entities offering “designer” embryos, it is unclear if there is an online “designer” bank operational at this time, although there has been at least one available online recently. See infra notes 21–22; see also Debra Saunders, Embryos Made to Order, S.F. CHRON., Aug. 8, 2006, at B7. It appears the founder has since closed this “bank” due to public pressure and commentary. Press Release, Abraham Center of Life LLC, Abraham Center of Life No Longer in Embryo Business (May 30, 2007), available at http://www.eworldwire.com/pressreleases/17092.
wants his child as soon as possible, so he has the tissues shipped to a South African fertility clinic where the egg is fertilized and implanted into an Indian surrogate, also discovered online. Patrick regularly monitors ultrasound using Sight Speed video link and receives weekly email medical updates with portable document format attachments (pdfs). He connects his laptop computer to his television and watches the birth in his living room via Skype. He then retains a “guide” to accompany the newborn to his local airport where he meets his new baby for the first time. He pays all costs through secure websites. Patrick created human life through cyberspace. There is nothing “traditional” about potential baby making in the Cyberprocreation era.

While this scenario may seem implausible to some, that is only because it is so different from how many envision human procreation. Every technological aspect identified is readily available and potential human life is truly just a few cyber links away. That reality raises many issues begging discussion and analysis. This article focuses on two: embryo donation and surrogacy. We contend that while the Internet increased the availability of, and the market for, human embryos and surrogacy services


10. See TRS. OF IND. UNIV. What is a PDF File, INDIANA UNIVERSITY (Feb. 21, 2011), http://www.kb.iu.edu/data/aftt.html (“PDF (Portable Document Format) is a file format developed by Adobe as a means of distributing compact, platform–independent documents.”).

to a larger audience than ever envisioned, it also created significant and unimagined legal concerns for embryo donors, suppliers, surrogates and surrogate providers.

Parts I and II of this article provide a background on various Assisted Reproductive Technology ("ART") procedures and perspective on current applications. We will see that a combination of need, technological advancement, cost and process effectiveness, and increasing social acceptance will fuel the future use of donor embryos and/or surrogates.

Part III discusses the Internet’s impact on ART. Without question, the Internet increased the level of information available on virtually any subject. This section addresses three significant Cyberprocreation developments. First, the Internet likely creates or influences the idea that people should be, or use, reproductive goods or service providers. Second, it fosters new approaches and developments. Third, it shapes where people pursue ART, a development known as "Reproductive Tourism."

In Part IV we look at international, federal, state, and voluntary association regulation of embryo and surrogacy practices. We will find that despite the significant danger posed by defective embryos or inadequate surrogates, along with the investments some consumers are willing to incur, these areas are the "wild west" and largely unregulated.

Part V analyzes potential parental rights and responsibilities of embryo donors and surrogates. While it will undoubtedly surprise some, it is increasingly likely that surrogates may have parental rights and, to the surprise of the surrogate, she may have parental responsibilities as well. Parties may try to address these issues through surrogacy contracts, but we

12. See infra text accompanying note 28 (defining embryo donors).
13. See infra text accompanying note 30 (defining suppliers).
14. See infra text accompanying note 31 (defining surrogates).
15. See infra Part I.
16. See infra Parts I–II.
18. See infra Part III.
19. See infra Part III.
20. See infra Part III.
will see that there is no guarantee that such agreements will be legally enforceable.\textsuperscript{23}

Finally, Part VI shifts the focus from parentage to product liability. We analyze potential liability for embryo donors and suppliers under breach of warranty, strict product liability, and negligence causes of action.\textsuperscript{24} We then assess potential surrogate and surrogate provider liability under negligence and breach of contract.\textsuperscript{25} The article concludes with predictions and recommendations as society continues forward in the Cyberprocreation Era.

I. A NECESSARY CAVEAT

Readers will quickly realize that much is unsettled, and certainly unknown, in the rapidly developing world of ART. This article represents an important discussion, but clear language and consistent use is essential to guide our collaborative journey. We, therefore, provide certain operational definitions before we proceed further:

1. “Embryo” – the prefetal product of human conception from implantation through the eighth week of development.\textsuperscript{26}

2. “Designer embryo” – an embryo created to attempt to include or exclude certain resulting characteristics.\textsuperscript{27}

3. “Embryo donor” – the person(s) who causes the embryo to exist.\textsuperscript{28}

4. “Embryo donation” – providing an embryo in exchange for compensation.\textsuperscript{29}

\textsuperscript{23} See infra Part V.

\textsuperscript{24} See infra Part VI.

\textsuperscript{25} See infra Part VI.B.


Initially the sperm fertilizes one or more eggs, resulting in a zygote. \textit{Id}. The zygote develops in a blastocyst within a few days. \textit{Id}. The blastocyst becomes an embryo once it has developed cells to support both the fetus and the placenta. \textit{Id}.

\textsuperscript{27} See, Kate Foster, Couples Offered Designer Babies (PGD Embryo Screening), FREE REPUBLIC, Jan 17, 2009, http://www.freerepublic.com/focus/f-news/2166642/posts (defining what a designer embryo is and the process of how one is created).

\textsuperscript{28} This could actually encompass a wide variety of situations: fertile couples, a couple or individual using an egg or sperm donor, or a couple or individual using an egg and sperm donor.

\textsuperscript{29} While it may seem unusual to define a donor as a person receiving compensation, that is the appropriate definition when discussing donation of human reproductive tissues eggs, sperm, or embryos because such “donors” are really “sellers”. See, e.g., Donor Compensation, THE EGG DONOR PROGRAM, http://www.eggdonation.com/becoming–an–egg–donor/Donor–compensation.php (last visited Mar. 16, 2011) (discussing the promise to reward donors with gifts and the highest level of compensation); Fees, SPERM DONORS INC.,
5. “Embryo supplier” – the person or entity that provides an embryo to prospective parent(s), but has no biological connection to the embryo.30

6. “Surrogate” – a woman who is paid to act as a replacement for another woman who will not, or cannot, carry a pregnancy through to term.31

7. “Surrogate provider” – an entity providing a surrogate to prospective parent(s).

http://www.spermdonorsinc.com/Fees.html (identifying compensation to sperm donors as ranging from $1,000–2,000 depending on qualifications) (last visited Mar. 18, 2011).

Embryo donation is different from embryo adoption. See Brandon S. Mercer, Embryo Adoption: What are the Laws, 26 J. JUV. L. 73, 73 (2006) (“[E]mbryo adoption is the ‘donation of frozen embryo(s) from one party to a recipient who wishes to bear and raise a child.’ Embryo adoption is simply defined as the gifting of embryos.”). Jaime E. Conde, Embryo Donation: The Government Adopts a Cause, 13 WM. & MARY J. WOMEN & L. 273, 279–83 (2006) (discussing the different ways embryo adoption and embryo donation are defined). But see Paula J. Manning, Baby Needs a New Set of Rules: Using Adoption Doctrine to Regulate Embryo Donation, 5 GEO. J. GENDER & L. 677, 678 (2004) (stating that the terms embryo donation and embryo adoption are synonymous). This contention is frequently well supported by entities that merge the concepts, likely causing confusion. See, e.g., Embryo Adoption, FERTILITYCOMMUNITY.COM, http://www.embryoadoptions.com/ (last visited Mar. 18, 2011) (“The legal process of the transfer of the embryos from the donor to the adopter is governed by contract law rather than adoption law. The embryos are “owned” by the donating family and “ownership” is given to the adopting family before the embryos are thawed and transferred into the adopting mother's womb. Adoption agencies wrap the protections of current adoption practices around the process of embryo donation.”).


Traditionally conception occurred through intercourse between a male and female, with the male supplying the sperm and the female providing the eggs. ART is the umbrella term for various medical technologies creating conception through means other than coital reproduction. There are a number of ART strategies. The oldest and most common is Artificial Insemination (AI). The next most common is In Vitro Fertilization (IVF). The goal of such procedures is to successfully fertilize a human egg, resulting in an embryo. That embryo may then be stored for future use or implanted into a woman’s uterus for gestation. Gestation may involve the services of a surrogate. There is very recent growth in ART practices using embryo donation and/or surrogates and, going forward, these two trends will be increasingly prominent for, at least, four reasons.


33. Examples of such techniques include intracytoplasmic sperm injections (ICSI) (injecting a single sperm directly into an egg), gamete intrafallopian transfer (GIFT), zygote intrafallopian transfer (ZIFT), and Intracytoplasmic sperm injection (ICSI), embryo transfer, and increasingly, surrogacy. See DEBORA L. SPAR, THE BABY BUSINESS: HOW MONEY, SCIENCE, AND POLITICS DRIVE THE COMMERCE OF CONCEPTION 17 (2006).

34. See Kari Livingston, What is the Difference Between TS & GS Surrogacy, EHOW available at http://www.ehow.com/info_8124952_difference-between-ts-gs-surrogacy.html. AI is the least intrusive ART procedure. AI takes previously ejaculated sperm and implants it into a woman’s cervix or uterine lining. Weller, supra note 31. There are several forms of insemination process such as standard vaginal and intrauterine. See Justyn Lezin, (Mis)Conceptions: Unjust Limitations on Legally Unmarried Women’s Access to Reproductive Technology and Their Use of Known Donors, 14 HASTINGS WOMEN’S L.J. 185, 191 (2003) (stating that vaginal insemination is the most commonly used method of insemination); KIM TOEVS & STEPHANIE BRILL, THE ESSENTIAL GUIDE TO LESBIAN CONCEPTION, PREGNANCY AND BIRTH 304–5 (2002). There are two forms of AI but they differ based on who is providing the sperm. See Definition of AID, MEDTERMS, http://www.medterms.com/script/main/art.asp?articlekey=6986 (last updated Oct. 21, 1998). In Artificial Insemination by Husband, the husband is the donor. Id. In Artificial Insemination by Donor, the donor is someone other than the recipient—mother’s husband. Id.

35. IVF (literally meaning “in glass”) requires a sperm donor and a physician’s/clinician’s assistance for implantation. The process begins with hormonal stimulation of a woman’s ovaries to produce multiple eggs. See IN VITRO FERTILIZATION, http://in-vitro-fertilization.eu/ (last visited Apr. 7, 2011) (explaining the process of in vitro fertilization). This woman may be the intended birth mother or she may be an egg donor who will not carry any resulting child. The eggs are surgically removed and placed in a glass Petri dish. Sperm are then introduced to the eggs. If successful, the sperm fertilizes the eggs and upon an eight-cell stage, the “pre-embryo” is transferred to a woman’s uterus by cervical catheter. See Weldon E. Havins & James J. Dalessio, Reproductive Surrogacy at the Millennium: Proposed Model Legislation Regulating “Non-Traditional” Gestational Surrogacy Contracts, 31 McGeorge L. Rev. 673, 681 (2000) (discussing gestational surrogacy and how after the ovum is fertilized with the sperm, it becomes an embryo and is then placed into a woman’s uterus).

First there is, and will be, increasing need. This need may be rooted in biology, legal constraints, economics, culture, or a combination of these and other factors. Biologically the fact is that many people have difficulty conceiving and that problem is getting worse. For some reproduction is biologically impossible, even though there are no infertility issues. While many people might need embryos or surrogacy services, the laws of their domiciles may limit, or prohibit outright, such reproductive assistance, forcing them to secure this aid elsewhere. Need is frequently financial.

Society for Assisted Reproductive Technology, representing scores of reproductive clinics, reports that the number of gestational surrogate births in the [United States] quadrupled between 1996 and 2006. This rapid evolution cannot be over-stated. As recently as 2004 the President's Council on Bioethics concluded that there was no embryo commerce taking place in the United States. Jeffery T. Wise, Embryo Banking as a Novel Option for the Infertile? Law Policy, and a Proposed Model Act, 8 HOU S. J. HEALTH L. & POL'Y 163, 177 (2007). Within 24 months "The World's First Human Embryo Bank" was available online and based in San Antonio, Texas. This "Bank" was properly known as the Abraham Centre of Life. See Rob Stein, Texas Firm First to Offer Ready–Made Embryos, available at http://www.chron.com/disp/story.mpl/headline/metro/4451076.html. We can now obtain embryos from diverse entities. See, e.g., CONCEPTUAL OPTIONS, supra note 30 (offering designer embryos from many sources); Embryo Donation, SPECIALISTS IN REPRODUCTIVE MEDICINE & SURGERY, P.A., http://www.dreamababy.com/embryo–donation.htm (last visited Mar. 18, 2011); Embryo Donation, BETHANY CHRISTIAN SERVICES, http://www.bethany.org/a55798/bethanywww.nsf/0/12a23f0bc63400a085257289006cb5d6 (last visited Mar. 18, 2011).

Of course, “growth” requires context. As one article properly notes, surrogacy is one of the least used ART procedures. See Debora Spar & Anna M. Harrington, Building a Better Baby Business, 10 MINN. J.L. SCI. & TECH. 41, 46 (2009) (stating that surrogacy was used in one percent of ART cycles in 2005. But, this fails to recognize the pronounced increase recently. See Berke, supra . We also note that there are at least thirty clinics in the United States offering surrogacy services with one boasting more than 1,400 births and another with fifty surrogates available. See Egg Donor and Surrogacy Programs, INFERTILITY RESOURCES FOR CONSUMERS, http://www.ihr.com/infertility/provider/donoregg.html (last visited Mar. 18, 2011). Additionally domestic physicians are increasingly using foreign surrogates. See infra text accompanying notes 100–107.

37. Spar & Harrington, supra note 36, at 44 (noting that an estimated 15% of American women and 10–15% of American men are infertile).


39. See Berke, supra note 36 (discussing two agencies that have each experienced a fifty percent increase in the number of single men using surrogacy services and noting that a significant percentage of those using surrogates are gay men or couples or single, straight men.)

40. See infra text accompanying notes 91–93

Those unable or unwilling to carry an embryo to term can hire a surrogate. There are many women, both in the United States and abroad, who need the income surrogacy can provide. There are many people who

42. See, e.g., Ruby L. Lee, Note, New Trends in Global Outsourcing of Commercial Surrogacy: A Call for Regulation, 20 HASTINGS WOMEN'S L.J. 275, 282 (2009) (discussing that there is a "the trend of fertile, married, career women opting out of bearing their own children in favor of convenience" and that there is an "increasing interest in using surrogates has come from career women who do not want to take a break from their careers").


At least one court refused to enforce a surrogacy contract, in part precisely because they were concerned about the effect of compensation. See R.R. v. M.H., 689 N.E.2d 790, 796 (Mass. 1998) ("Eliminating any financial reward to a surrogate mother is the only way to assure that no economic pressure will cause a woman, who may well be a member of an economically vulnerable class, to act as a surrogate.").

See Lee, supra note 42, at 278 ("On average, an Indian gestational surrogate receives between $2,800 and $5,600 for her services. For perspective, these amounts are equivalent to ten years' salary for rural Indian women."); Krittivas Mukherjee, Rent-a-Womb in India Fuels Debate, EIZILON INFOBASE, Feb. 5, 2007 http://www.ezilon.com/information/article_17613.shtml (last visited Mar. 18, 2011) ("[A] surrogate is paid anything between $3,000 and $6,000, a fortune in a country with an annual per capita income of around $500.").

45. See, e.g., Margot Cohen, A Search for a Surrogate Leads to India, WALL ST. J., Oct. 9, 2009, http://online.wsj.com/article/SB10001424052748704252004574459003279407832.html?KEYWOR D=S=Margot+Cohen (discussing one Indian woman's decision to be a surrogate because "[H]aving someone else's child sounded like a better option than her other plan: selling a kidney."). While there is some information regarding surrogates and financial need, there is little publicly available regarding embryo donors, but we gain some insight from recent human egg donation trends. Cf., Stephanie Smith, Dim Economy Drives Women to Donate Eggs for Profit, CNN , Aug. 8, 2008, http://cnn.com/2008/HEALTH/08/05/selling.eggs/index.html (reporting a Chicago clinic was fielding 30 to 50 inquiries a day from potential donors in 2008 compared to the prior year's 10 to 30, while the Reproductive Science Center of the Bay Area received 158 calls in July 2008, in contrast to 120 in July 2007). Fertility clinics report a dramatic increase in the number of egg donations and procedures performed each year. Smith, supra. This is particularly true during the recent economic times. Cf. Judy Keen, Recession Finds Fertile Field of Egg, Sperm Donors, U.S.A. TODAY, July 7, 2009, at 1A (reporting that Health News, an Irvine, California company that operates a national donor referral service, had a 40% increase since February 2008) Fertility clinics nationwide report a significant increase in the number of donors coming forward. See e.g., Juju Chang & Kiran Khalid, Less Money Means More Egg Donors, ABC NEWS, Oct. 27, 2008, http://abcnews.go.com/GMA/OnCall/story?id=6119578&page=1 (stating fertility experts throughout the country reported a 30% to 40% increase in applicants).
desperately want a child but cannot reproduce and cannot afford to pursue IVF. Embryos and/or surrogates may provide the only options. Finally, need may be cultural as well, particularly when infertility brings shame. Although there is no published data, anecdotally it appears that the use of surrogates has grown exponentially over just the past few years.

Second, reproductive technology advances at a truly astounding rate. Many ART procedures are now so common that we lose perspective of how recently they came into existence. America celebrated the birth of its first IVF-conceived baby in 1981; just twenty-five years later at least 54,656 of 2008 more than 100,000 young women sold or donated eggs to approximately 470 IVF clinics in the United States. W. Kramer et al., U.S. Oocyte Donors: A Retrospective Study of Medical and Psychosocial Issues, 24 OXFORD J. OF HUM. REPROD. 3144, 3144 (2009), available at http://humrep.oxfordjournals.org/content/24/12/3144.full


48. See generally Liza Mundy, Souls on Ice: America’s Embryo Glut and the Wasted Promise of Stem Cell Research, MOTHER JONES, July/Aug. 2006, available at http://motherjones.com/politics/2006/07/souls–ice–americas–embryo–glut–and–wasted–promise–stem–cell–research (discussing a wide range of recent developments, including the combination of more effective fertility drugs and laboratory procedures producing more embryos per cycle, implantation procedures using fewer embryos, and the fact that a woman recently gave birth using an embryo that had been frozen for 13 years, which underscores how unclear the future of embryo storage and usage really is, as professionals do not even know how long frozen embryos will be “good for” going forward). This may be particularly true of medical technology regarding embryos. Id.; see also Lucy Laing, Conceived Together, Born 11 Years Apart: Deep–frozen Third Sister Arrives After Record Gap, DAILY MAIL, available at http://www.dailymail.co.uk/health/article-1341766/Conceived-born-11-years-apart-Deep-frozen-sister-arrives-record-gap.html (last updated Dec. 27, 2010) (explaining how a woman was born 11 years after being conceived).

babies were born in the United States using IVF and IVF-related procedures.\(^{50}\) We have only been able to store human eggs since 2004.\(^{51}\) In 2007, Europe’s first in vitro maturation babies were born.\(^{52}\) We may have even gotten to the point where women do not need men to create babies.\(^{53}\) There is little reason to doubt that we will regularly see regular such ART “miracles” going forward or that the use of reproductive technology will continue to increase.

The third driving force is the cost and process effectiveness of purchasing embryos and/or using surrogacy services relative to IVF. IVF based procedures are not single, point-in-time activities; they are more accurately a series of steps over different periods of time. The Centers for Disease Control (“CDC”) refers to these as “cycles of treatment”\(^ {54}\) or, for purposes of this article, “cycles.” The average cost for a single cycle of IVF is $10,000-12,000, but can reach as much as $25,000 if features such as donor gametes or intracytoplasmic sperm injection (ICSI) are added.\(^ {55}\) And,

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52. Justin Blau, IVM Babies Just Fine, Thank You, CBS NEWS, June 30, 2003, http://www.cbsnews.com/stories/2003/06/30/health/main561011.shtml. In vitro maturation (“IVM”) is similar to IVF. See Tracy Connor, Have a Baby at New Low, Low Price, Says Fertility Doctor Joel Batzofin, NY DAILY NEWS, Apr. 13, 2009, http://www.nydailynews.com/news/2009/04/13/2009-04-13_have_a_baby_at_new_low_low_price.html (describing the basic procedure for both IVF and IVM). The key difference is that, in IVF, the egg donor is placed on hormones to stimulate their ovaries and the eggs are withdrawn when mature. Id. In IVM no hormones are used and the eggs are removed before maturation. Id.

53. In 2009, British researchers announced that they had taken stem cells from an embryo and used them to create human sperm. See Peter Allen, Sperm from Stem Cells, CBS NEWS, July 9, 2009, http://www.cbsnews.com/stories/2009/07/09/uttl/main5148372.shtml (“Sperm could be produced from female stem cells. That would mean women would no longer need men to create babies.”).

54. See CDC 2006 REPORT, supra note 50, at 4 (“Because ART consists of several steps over an interval of approximately two weeks, an ART procedure is more appropriately considered a cycle of treatment rather than a procedure at a single point in time.”).

55. See Marcia C. Inhorn & Michael Hassan Fakih, Arab Americans, African Americans, and Infertility: Barriers to Reproduction and Medical Care, 85 FERTILITY & STERILITY 844, 844 (2006) (estimating the mean cost of IVF in the United States in 2002 at $9,547). Cost varies by region and clinic. See id. (describing a study of Arab and African Americans living in low-income areas of the United States that are unable to afford infertility treatment even when clinics offer discounts or different pricing).
while the rate of success has grown considerably, most women need more than one cycle to accomplish pregnancy.\textsuperscript{56} It is not uncommon for a person or couple to spend $100,000 just attempting to conceive using traditional IVF based procedures.\textsuperscript{57} Making IVF even more cost prohibitive is the fact that the vast majority of states do not require insurance companies to cover, or offer coverage for, infertility diagnosis and treatment.\textsuperscript{58} Using embryos and/or surrogates may decrease total costs, perhaps by 50% or more,\textsuperscript{59} while also increasing the likelihood of success.\textsuperscript{60} Finally, ART use is increasingly common and possibly more socially acceptable.\textsuperscript{61} In 1996, there were 64,681 ART cycles performed in the

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\item 57. See Spar & Harrington, supra note 36, at 46-47 (projecting the average cost of a single cycle to be $12,400 while the price of some eggs ranged from $25,000 to $50,000). This is true even when the patient knows the probability of success is low. See Judith F. Daar, Regulating Reproductive Technologies: Panacea or Paper Tiger?, 34 HOUS. L. REV. 609, 632 (1997) (discussing the recent entrance of women into the ART market who were previously ineligible for treatment, including the extreme case of a post menopausal woman birthing a son from a donor egg). Patients are frequently willing to pay nearly $30,000 for a 10% chance of having a baby. See Melinda B. Henne et al., The Combined Effect of Age and Basal Follicle-Stimulating Hormone on the Cost of a Live Birth at Assisted Reproductive Technology, 89 FERTILITY & STERILITY 104, 107 (2008) (describing a pilot study that found patients in 2005 willing to pay $27,158 for a 10% chance of delivering a baby).
\item 58. See, State Laws Related to Insurance Coverage for Infertility Treatment, NAT’L CONFERENCE OF STATE LEGISLATURES (Sept. 2010), http://www.ncsl.org/programs/health/50infert.htm (listing current state insurance laws that address insurance coverage for fertilization procedures).
\item 59. See Stein, supra note 36 (explaining that The Abraham Center provided affordable options for clients to its fertility bank by charging $2,500 per embryo and an estimated $10,000 for total cost of a pregnancy); see also Wise, supra note 36, at 169 (describing The Abraham Center’s less costly process and report of two women who “shared” a single batch of embryos and shared costs).
\item 60. See Lynne Peeples, In IVF, Frozen Embryos May Fare Better Than Fresh, REUTERS, Feb. 17, 2010, http://www.reuters.com/article/2010/02/17/us-ivf-embryos-idUSTRE61G4U120100217 (describing a Finnish study that determined children born from frozen embryos were less likely to be born prematurely and had a higher birth weight and length). While we cannot say that it is a well-established medical fact, designer embryos may have higher pregnancy success rates than non-designer embryos, particularly when the egg and sperm come from donors with an established track record of achieved pregnancies. See Wise, supra note 36, at 168 n.21 (“[T]hey can increase the chance of a successful pregnancy from approximately thirty percent to an impressive seventy percent.”).
\item 61. See, e.g., NO BABY ON BOARD, www.nobabyonboard.com/moviestv.html (last visited Jan. 14, 2011) (providing examples of celebrities who publicly acknowledge using IVF to conceive, including David and Courtney Cox, Marcia Cross, Penn Jillette; moreover, Angela Bassett, Robert DeNiro, Peri Gilpin, Kelsey Grammar, and Deidre Hall used surrogates). It may even be the case
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United States, by 2008 that number increased to 148,055 resulting in 46,326 live births (deliveries of one or more living infants) and 61,426 infants. Although ART use is still relatively rare, it has doubled over the past decade.

It is also, arguably, acceptable not only to use ART to try to create life, but to attempt to create life through designer embryos. While some contend there is no need for such embryos the reality is that there will be demand for three reasons. First, while there are embryos in storage, the vast majority is unavailable to prospective parent(s). Second, even if those embryos were readily available, there are questions about potential viability. Third, it is simply ridiculous to discount the reality that would-

that ART discussions have become social events. See, e.g., Non-profit Organization Holds Egg Donor/Surrogacy Event in Popular Beverly Hills Nail Salon, GAY NEWSWIRE, Jan. 21, 2010, http://www.gaynewswire.com/nonprofit-organization-holds-egg-donorsurrogacy-event—popular—beverly—hills—nail—salon/6192 (posting an invitation to a program “designed to deliver sensitive and important information about surrogacy and egg donation in a casual, relaxed setting, where participants enjoy complimentary manicures, pedicure, and martinis”).

62. CDC 2006 REPORT, supra note 50, at 61.
64. Id at 65.
65. We say “arguably” because there are certainly opinions to the contrary. See, e.g., Joyce E. Cutler, Designer Baby Offer to Screen Embryos for Eye, Hair, Skin Pigmentation Dropped, CTR. FOR GENETICS & SOC’Y (March 4, 2009), http://www.geneticsandsociety.org/article.php?id=5210.(discussing a California fertility clinic’s decision to withdraw its screening plan due to “apparent negative social impacts.”); Daniel Martin, Couple Pay 9,000 to Have First British Web Baby, DAILY MAIL, Jan. 22, 2007, http://www.dailymail.co.uk/health/article-429393/Couple-pay—9—000—British—web—baby.html (“Stephen Green, national director of Christian Voice, said ‘The objection to the idea of designer babies is that it divorces procreation form the act of sexual congress, and there is a real sense in which it is playing God.’”).
66. See. e.g., The Slope is Really Slippery, CHRISTIANITY TODAY, Mar. 24, 2007, http://www.christiantoday.com/ct/2007/march/24.29.html (discussing the slippery slope that the Abraham Center is approaching through embryo selection as “the world’s first embryo bank”).
67. Id. (alleging that there are some 500,000 embryos in cryopreservation in the United States).
68. Susan Crockin, How do you “Adopt” a Frozen Egg?, BOSTON GLOBE, Dec. 4, 2005, at D12 (“According to a 2003 study, approximately 88 % of those frozen embryos are still under the active control of the patients who created them and are still trying to create a family with them. Of the remaining embryos, only about 2 % of patients were found to actually choose to donate their embryos to another family for procreation — likely, at least in part, from discomfort over donating their born child’s potential genetic sibling. In my own practice and those of many of my colleagues, almost 75 % of patients who seriously consider donation ultimately decide not to donate to another family.”).
69. See Jennalee Ryan, The World’s First Embryo Bank, FREE REPUBLIC, Aug. 2, 2006, http://www.freerepublic.com/focus/f-news/1676440/posts (pointing out that the quality of embryos from infertile couples is less than those from a proven egg and sperm donor raising the pregnancy, with pregnancy rates of 30% and 70% respectively).
be parents hope to "produce" a child with certain characteristics or abilities.\(^7\)

### III. SYMBIOSIS

The embryo market is, at least domestically, a very recent development\(^7\) and surrogate use increased dramatically over the past few years.\(^2\) The logical explanation for these developments is the Internet. As recently as 1999 people advertised in newspapers for human tissue donors\(^7\) and only 40% of the American population aged 16-years and older accessed the Internet.\(^7\) Ten-years later, 74% did\(^7\) and the United States currently has more than 239,232,863 Internet users.\(^7\) Global Internet use increased 444.8% from 2000 to 2010.\(^7\) As of June 2010, there were approximately 1,966,514,816 Internet users worldwide.\(^7\) In 1993 the United States ART industry was estimated at $164 million per year.\(^7\) By 2010, that figure

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7. See, e.g., Joan O'C. Hamilton, *What are the Costs?*, 2000 STANFORD MAGAZINE 53, 58 ("[F]uturistic scenarios of parents-in-waiting "constructing" a child already have arrived. Scouring a website where they can select donors, hopeful couples can quickly get caught up in comparison shopping, where physical features are the stock in trade. "Couples who would have been looking for someone with a lovely character before [the Internet] now say, 'Well, we like No. 98, but haven't you got someone with a bluer eye?'"). It may even be the case that prospective parents desire characteristics that may not commonly be perceived as desirable. See Sarah-Jay Templeton, *Deaf Demand Right to Designer Deaf Children*, SUNDAY TIMES, Dec. 23, 2007, http://www.timesonline.co.uk/tol/news/uk/health/article3087367.ece (presenting an argument by the Royal Institute for Deaf and Hard of Hearing People that Deaf parents should be allowed to screen their embryos so they can choose a deaf child). An American family chose a sperm donor with a history of family deafness to purposely have a deaf child. *Id.*

71. *Id.*

72. *Id.*


78. *Id.*

grew to at least $1.7 billion.\textsuperscript{80} Eighty percent of adult Internet users seek health information online\textsuperscript{81} and reproductive health questions are one of the most common areas of interest.\textsuperscript{82} It is no coincidence that Internet usage and ART growth mirror each other. The fact is that the Internet allows prospective ART buyers and sellers to find each other in ways unimaginable even a decade ago. But the Internet is not only providing ART access it is shaping, at least, three significant ART ideas.

First, many ART buyers and sellers find each other online, but that pre-supposes awareness of the existence of the “other party”. While it is impossible to quantify, there is no doubt that some people get the initial idea to pursue ART activities from the Internet.\textsuperscript{83}

Second, the Internet fosters the idea that ART is not limited to any traditional audience. Originally IVF was for married women under the age of 35 who suffered specific physiological problems and could not conceive naturally.\textsuperscript{84} The Internet makes ART developments available to broader constituencies. Prominent user groups now include non-married, career heterosexual women,\textsuperscript{85} gay\textsuperscript{86} or lesbian\textsuperscript{87} couples, individuals,\textsuperscript{88} and

\textsuperscript{80}See Spar & Harrington, supra note 36, at 47 (“[T]he arithmetic suggests that assisted reproduction in the United States is at least a $1.7 billion market.”).


\textsuperscript{84}See, e.g., LIZA MUNDY, EVERYTHING CONCEIVABLE: HOW ASSISTED REPRODUCTION IS CHANGING OUR WORLD, 27 (2007) (“We limited our cases at first to those women who had had their Fallopian tubes removed”).

\textsuperscript{85}See Deborah Apton, More Women Choosing Single Motherhood, ABC NEWS, May 24, 2006, http://abcnews.go.com/Nightline/story?id=1995278&page=1 (“California Cryobank, one of the largest sperm banks in the country, reports that single women make up 32% of the clients who buy sperm from its bank.”).


\textsuperscript{87}See Paula Amato & Marcy Casey Jacob, Providing Fertility
straight single men. The Internet also cultivates the development of “radical” ART concepts.

Third, the Internet is epicenter of the idea of Reproductive Tourism (“RT”). While authors discuss the concept of RT differently, here it means “citizens of one country using reproductive technologies in another.” Commentators address restrictions driving RT users across borders (such as situations where treatment is unavailable or procedures are locally illegal), but users pursue RT for a variety of reasons including lack of

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88. See Berke, supra note 36 (telling the story of a single male in Manhattan who became of single parent through surrogacy).

89. Id.

90. See, e.g., Martin, supra note 66 (discussing the Texas–based Abraham Center, the “World’s First Embryo Bank” who marketed its services, and attracted clients, online. Its first two successful procedures involved women from Canada and California and quickly gained potential clients from England).

91. See, e.g., Guido Pennings, Legal Harmonization and Reproductive Tourism in Europe, 19 HUMAN REPROD. 2689, 2690 (2004) (“Reproductive or infertility tourism refers to the movement of citizens to another state... to obtain specific types of medical assistance in reproduction that they can not receive at home.”). The basis of this definition likely comes from Bartha M. Knoppers & Sonia LeBris, Recent Advances in Medically Assisted Conception: Legal, Ethical, and Social Issues, 17 AM. J.L. & MED. 329, 333 (1991) (defining “procreative tourism” as people traveling to exercise “personal reproductive choices in less restrictive states”).

92. Sometimes procedures are “unavailable” because medical personnel simply refuse to perform them. See, e.g., Andrea D. Gurman et al., Screening Practices and Beliefs of Reproductive Technology Programs, 83 FERTILITY & STERILITY 61, 65 tbl. 6 (2005) (reporting that one in five treatment providers refuse treatment to unmarried women); Catherine DeLair, Ethical, Moral, Economic and Legal Barriers to Assisted Reproductive Technologies Employed by Gay Men and Lesbian Women, 4 DEPAUL J. HEALTH CARE L. 147, 150 (2000) (“The most common and the most significant barrier that gays and lesbians face when trying to access reproductive technologies is physician discrimination and refusal to provide treatment.”). In addition to direct discrimination – refusal to provide treatment – same-sex couples face statutes that prohibit insurance payments for in-vitro procedures unless for instance, the treatment is rendered upon their lawful spouse. See NAT’L CONFERENCE OF STATE LEGISLATURES, supra note 58 (outlining various state statutes addressing insurance coverage of in vitro procedures).

93. See Lee, supra note 42, at 285 (“[R]egulation that is overly restrictive towards the practice of surrogacy has not eliminated the practice. Rather it has boosted demand for [reproductive] tourism.”).

local medical expertise, lengthy waiting lists, cost considerations, and convenience. RT is a prevalent, and based on growth patterns, soon to be an enormous ART/Internet consideration because the Internet "facilitates nearly all facets of medical tourism."

It is almost impossible to fathom the future explosion of RT but, while data is limited, the projections for India provide some perspective. In 2003, India’s Finance Minister announced his country’s goal to become a “global health destination.” An estimated 150,000 medical tourists visited India in 2005, but that number was projected to increase to 450,000 by 2008. Perhaps more telling is that India’s RT segment of medical tourism was approximately $450 million per year in 2006 and is projected to grow by 600% in the near future. A significant portion of this growth is

95. See A Growing Number of Brits Cross the Atlantic for Donor Egg IVF Treatment at Shady Grove Fertility Center, PR NEWSWIRE, June 16, 2009, http://news.prenswire.com/ViewContent.aspx?ACCT=109&STORY=/www/story/06-16–2009/0005044891&EDATE (last visited Jan. 15, 2011) (“In the UK, where egg donors are neither paid nor guaranteed anonymity, donor eggs are scarce, wait times can be as long as three years and choice of donor is limited.”) Some clinics exist precisely because countries have more demand than supply. See, e.g., International Egg Donor Program, SHADY GROVE FERTILITY, http://www.shadygrovefertility.com/international (last visited Jan. 15, 2011).

96. Fertility treatments in foreign countries may be significantly cheaper. Cost of IVF with Sperm Donation Abroad, VISITANDCARE.COM, http://www.visitandcare.com/infertility--treatment--abroad/guides/treatment/ivf--with--sperm--donation/cost (last visited Apr. 26, 2011). As an example, the average cost for a cycle of IVF is $10,500 in the United States. Id. That same treatment costs $5,100 in Cyprus, $4,200 in Argentina, and almost 80% less, $2,200, in India. Id. Prospective users can comparison shop online utilizing estimated costs and user reviews. See, e.g., IVF Fertility Medical Procedure Country Price Compare Traveling from USA, ALLMEDICALTOURISM.COM, http://www.allmedicaltourism.com/usa/fertility/ivf-in-vitro-fertilization/?mic=m62tl88kjf&gclid=CNmwwYWOrpwCFQMNDQodlWSM7w (last visited Apr. 26, 2011) (allowing users to choose countries to compare pricing).


98. See Morris, supra note 94, at 712 (“Reproductive Tourism has become an unmistakable part of the European landscape.”).

99. See Cortez, supra note 81, at 85.


101. Id.

attributable to the Internet, specifically user-friendly websites\textsuperscript{103} and effective, although not necessarily reliable,\textsuperscript{104} online advertising.\textsuperscript{105} The United States, while not attempting to grow RT as India, still has a $3 billion dollar per year industry\textsuperscript{106} and many domestic physicians are increasingly embracing aspects of RT.\textsuperscript{107}

IV. Regulation\textsuperscript{108}

"[T]he plain fact is that medical technologies have raced ahead of the law without the heed of the general public or legislators."\textsuperscript{109}

In this section we examine international, federal, state, and voluntary association regulation, or lack thereof, regarding embryo donation and surrogacy services. While it would be convenient to address the same directives at each level, we do not have that luxury as regulation ranges from chaotic to non-existent. Accordingly we are left attempting to address two general, but significant, topics in each of the following subsections. First, is there embryo "regulation" and, if so, what is regulated? Second, is there surrogacy "regulation" and, if so, what is regulated?

A. International Law

There is little international regulation of human embryos. What does exist primarily focuses on the length of time embryos can be stored. Storage may be prohibited entirely,\textsuperscript{110} limited to one-year,\textsuperscript{111} two-years,\textsuperscript{112} three-years,\textsuperscript{113} five-years,\textsuperscript{114} ten-years,\textsuperscript{115} or unlimited.\textsuperscript{116}

\textsuperscript{103} See Cortez, supra note 81, at 85–86 ("Virtually every hospital that caters to foreign patients has an English Web site. And these Web sites are increasingly functional. Many allow patients to schedule treatments, book hotels and airfare, and even contact their surgeon. Patients can also find medical tourism brokers on the Internet that will liaise with foreign hospitals and make travel arrangements.").

\textsuperscript{104} See Smerdon, supra note 102, at 30 (noting that many Indian ART practitioners and fertility tourism agencies have created websites that "are designed to function as marketing tools for medical tourism, to attract patients from around the world to India and more importantly, to the clinic. It is difficult to distinguish actual information from marketing strategies, as the two often appear to be indistinguishable").

\textsuperscript{105} Id. at 24 ("Between 2004 and 2006, the number of websites advertising ART more than quadrupled with marketing heavily geared to foreigners.").

\textsuperscript{106} See Mundy, supra note 84, at 4.

\textsuperscript{107} See Cohen, supra note 45, at D1 (noting that the president of a California–based medical–tourism company stated that "in the first eight months of [2009] he sent 600 couples or single parents overseas for surrogacy, triple the number in 2008 and up from just 33 in 2007").

\textsuperscript{108} While we will discuss aspects of embryo regulation in this section, we will not address specific stem cell issues as those are beyond the scope of this article.


\textsuperscript{110} For example, Italy prohibits the storage of donor egg or sperm, and prohibits freezing embryos for later use. See Assisted Human Reproduction Internationally, HEALTH CANADA (Oct.
There is more developed surrogacy regulation, both by action and inaction. Some countries flatly prohibit it; others regulate surrogacy by prohibiting compensation to surrogates, while still others allow surrogate compensation. Many countries, likely even most, have no national regulation.

B. Federal Law

One author asserts that there are federal laws requiring “strict medical and genetic screenings of the [embryo] donating couple to determine the


112. Belarus, the Netherlands, Russia, Switzerland, and the Ukraine allow storage for two years. Id.

113. Norway and Sweden allow storage for three years. Id.

114. Belgium, Croatia, France, Iceland, and the United Kingdom allow storage for five years. Id.

115. Finland, Israel, and Spain allow storage for ten years. Id.

116. For example, the United States has no restriction on storage time. Id.


118. For example, Australia, Canada, Denmark, Greece, Netherlands, New Zealand, and the United Kingdom prohibit commercial surrogacy. Id.


embryo’s viability and whether the couple is ‘free of any genetic and communicable diseases.’”121 If such comprehensive legislation exists, we cannot find it. In fact the opposite is possible; there may be no federal laws address embryo donor screening. We contend that statutory language and commentary demonstrates there is some embryo screening and storage legislation, though it is minimal.

The federal government oversees assisted reproduction and genetic testing through three agencies: the Food and Drug Administration (“FDA”), the Centers for Medicare and Medicaid Services (“CMS”),122 and the Center for Disease Control (“CDC”). The FDA’s term “other reproductive tissue” should encompass embryos.123 Even if that is correct, there are no more than two regulations regarding embryo collection and storage. The first merely mandates that all “establishments” engaged in the collection, processing, storage and distribution of human embryos have their donors screened and tested for H.I.V., Hepatitis B & C, Chlamydia trachomatis and Neisseria gonorrhea.124 The second states only that human tissue must be stored at an “appropriate temperature.”125 While these regulations are nominal and vague, such deficiencies might be explained by accidental over-sight, but the federal government had an opportunity to clearly establish embryo quality control regulation and chose not do so.

The Fertility Clinic Success Rate and Certification Act of 1992 (“FCSRCA”) authorized the Secretary of Health and Human Services to issue regulations establishing certification standards and procedures for

122. 21 C.F.R. §§ 1271.55, 1271.80 (2006) (establishing that laboratory testing is largely governed by CMS).
123. See 21 C.F.R. § 1271.3(d)(3) (“Human cells, tissues, or cellular or tissue–based products (HCT/Ps) means articles containing or consisting of human cells or tissues that are intended for implantation, transplantation, infusion, or transfer into a human recipient. Examples of HCT/Ps include, but are not limited to, bone, ligament, skin, dura mater, heart valve, cornea, hematopoietic stem/progenitor cells derived from peripheral and cord blood, manipulated autologous chondrocytes, epithelial cells on a synthetic matrix, and semen or other reproductive tissue.”) (emphasis added); see also 21 C.F.R. § 1270 (2006) (regulating human tissue transplants); Human Cells, Tissues, and Cellular and Tissue–Based Products; Establishment Registration and Listing, 66 Fed. Reg. 5452, cmt. 11 (Jan. 19, 2001) (codified at 21 C.F.R. § 1271.1) (“Several comments questioned the need for the regulation of reproductive cells and tissues, citing current oversight from professional organizations, other Federal agencies, and States. Comments opposed registration for programs involved in egg donation, egg retrieval, semen processing, semen evaluation, or in vitro fertilization (IVF) in assisted reproductive technologies. ... We stand by our decision to extend regulatory requirements to reproductive cells and tissue.”).
124. 21 C.F.R. § 1271.85(a), (c).
125. 21 C.F.R. § 1271.260(b).
The Act defined an “embryo laboratory” as “a facility in which human oocytes and sperm, or embryos, are subject to ART laboratory procedures.” However nothing in the FCSRCA establishes standards or procedures for quality control practices; instead it only requires that fertility clinics report annual ART success rates. In sum, if there is any federal embryo quality control regulation, it is minimal and this minimal level is intentional.

There is no federal surrogacy legislation but there is one possibility in terms of “national” scope, the Uniform Parentage Act (“UPA”). The most recent incarnation of that Act was in 2002 (“UPA2002”). That Act recognized the need for clarification regarding parentage and surrogacy. UPA 2002 mandated that surrogacy agreements were not void per se, defined that a surrogate may be paid for her services, and clarified that gestational surrogate services were not “baby selling.” It further specified that the intended parents of a child born pursuant to an approved surrogacy agreement were, with judicial approval, the legal parents of the child. While ambitious, the Act does not provide definitive guidance. To date only nine states enacted it, none of them without change, and at

127. Id. at 60181.
128. Id. at 60178. See 42 U.S.C. §§ 263a–1 to –7 (2006) (regulating clinical laboratories). The Act has been termed by one author as “governmental regulation at its weakest.” Brenda Reddix-Smalls, Assessing the Markey for Human Reproductive Tissue Alienability: Why Can We Sell Our Eggs, but Not Our Livers?, 10 VAND. J. ENT. & TECH. L. 643, 658 (2008). It is hard to dispute this contention. To give perspective, in addition to its failure to establish quality control procedures, it was not even funded until four years after enactment. Id.
131. See generally, UNIF. PARENTAGE ACT, supra note 109.
132. Id. at art. 7, cmt. (noting that “[t]housands of children are born in the United States each year as the result of ART” and therefore, the Act seeks “to clarify definitively the parentage of a child born under these circumstances”).
133. Id. at §801, cmt.
134. Id. at §801(e).
135. Id. at §801, cmt.
136. Id. at §807, cmt. However, if the gestational agreement is not judicially validated, the gestational mother is the legal mother. Id. at §809, cmt.
137. The states that enacted the Uniform Parentage Act were Alabama, Delaware, New Mexico, North Dakota, Oklahoma, Texas, Utah, Washington, and Wyoming. Legislative Fact Sheet – Parentage Act, UNIFORM LAW COMMISSION (2010),
least two of those states did not adopt Article 8, the provision addressing gestational agreements. There is no case law interpreting UPA 2002 and its comments.

C. State Law

There is very little specific state embryo regulation and what does exist is inconsistent and frequently nebulous. Few states have attempted, or are attempting, to define the legal status of embryos. That status is a particularly compelling issue on many levels but, for purposes of this article, one aspect is critical. If embryos are “people,” they cannot be bought or sold. If they are “property,” disposition can be contracted like other goods. This distinction seems to warrant not just regulation, but a comprehensive and consistent body of rules. Unfortunately, developed regulation is sparse and, where it does exist, embryos may be people, property, or something in between.

Louisiana designates embryos as legal persons, while pending Georgia legislation declares that embryo life begins at the single-cell stage and that embryos have rights and responsibilities under state law. New
Mexico gives embryos the status of "fetus" by its broad statutory definition and Missouri law is that "the life of each human being begins at conception." At the other end of the continuum Michigan recently passed a statute treating some embryos as property and Florida law grants sperm and egg donors joint decision-making regarding embryo disposition. At common law, Texas treats embryos as property by allowing contract law to determine disposition. It appears that Maine, Massachusetts, North Dakota, and Pennsylvania statutorily recognize a special "interim" status making embryos more than property but less than human and, while Tennessee has not codified such status, its Supreme Court held that "[Embryos are] not, strictly speaking, either 'persons' or 'property', but occupy an interim category that entitles them to special respect because of their potential for human life." While there is little definitive status regulation, there is even less regarding the sale of human embryos. Louisiana and Florida statutorily prohibit such transactions,

available at http://www.legis.state.ga.us/legis/2009_10/fulltext/hb388.htm (last visited Mar. 24, 2011). The Governor had not signed the bill at the time this article was drafted.

144. See N.M. STAT. ANN. § 24-9A-1G (2007) (defining “fetus” as “the product of conception from the time of conception until the expulsion or extraction of the fetus or the opening of the uterine cavity.”).

145. MO. REV. STAT. § 1.205 (2010).


147. See FLA. STAT. § 742.17(2) (2009).

148. See, e.g., Roman v. Roman, 193 S.W.3d 40, 49–50 (Tex. App. 2006) (holding that embryo agreements do not violate public policy because parties are allowed to come to a voluntary agreement); but see Jodi L. Bender, Snowflakes in Texas? Enacting Legislation to Allow for Embryo Adoption, 16 TEX. WESLEYAN L. REV. 413, 414 (2010) ("But, in recent years, the courts and legislature have gradually moved in the direction of giving embryos the legal status of a person."). The author contends that Texas should adopt an “interim” status and “suggests that Texas should enact laws that will place a frozen embryo in a unique category not as a person, but as a special kind of property deserving of extraordinary respect.” Id. at 415.

In 2007 the Texas House of Representatives had the opportunity to address HB 1703. HOUSE COMM. ON STATE AFFAIRS, BILL ANALYSIS, Tex. H.B. 1703, 80th Leg. Reg. Sess. (2007), available at http://www.thbi.com/storage/pdf-files/end_of_session_report_80.pdf. That Act would have, in pertinent part, defined a human embryo as a “a genetically complete living organism of the species Homo [S]apien, from the single-cell zygote stage to eight weeks' development.” Further, the bill would have defined “embryo trafficking” as “creating a human embryo using in vitro fertilization for the purpose of selling, buying, or transferring for valuable consideration the human embryo to a person who is not a genetic parent of the embryo or the spouse of the genetic parent.” Id. (explaining that the bill apparently expired during session).

149. See Baiman, supra note 121, at 145.

150. Davis v. Davis, 842 S.W.2d 588, 597 (Tenn. 1992).


152. FLA. STAT. ANN. § 873.05 (West 2000 & Supp. 2011)
while Virginia exempts human ovum from its statutory restriction on the

It may appear fortunate that more states have surrogacy regulation, at

D. Voluntary Associations

Two entities promulgate aspects of voluntary embryo regulation, the American Bar Association ("ABA") and a consortium featuring the American Society for Reproductive Medicine ("ASRM"). The ABA formally adopted its Model Act Governing Assisted Reproductive Technology ("Model Act") in 2008. The Model Act defines an "embryo" as "a cell or group of cells containing a diploid complement of chromosomes or groups of such cells (not gamete or gametes) that has the potential to develop into a live-born human being if transferred into the body of a woman under conditions in which gestation may be reasonably expected to occur." This appears to fall into the "interim" classification previously discussed as the embryo is not life, but has the potential to develop into human life. The Model Act also calls for donation regulation addressing such issues as relinquishment of future parental and inheritance rights and donor screening prior to donation. It is unclear if any person or entity adopted the Model Act.

The ASRM is "...a voluntary, non-profit organization devoted to advancing knowledge and expertise in reproductive medicine, including infertility, menopause, contraception, and sexuality." It is "...the leading market force in the field of reproductive medicine." The Society for Assisted Reproductive Technology (SART) is "...the primary organization of professionals dedicated to the practice of assisted reproductive technologies (ART) in the United States." "SART is also extensively involved in data collection, practice guidelines and standards, government interaction, quality assurance, and research." SART is also comprehensively involved with a wide variety of entities that have significant ART interests and concerns. ASRM and SART, along with

165. AM. BAR ASS'N, MODEL ACT GOVERNING ASSISTED REPROD. TECH § 102(9).
168. See Reddix–Smalls, supra note 128, at 673.
170. Reddix–Smalls, supra note 128, at 675.
171. See David Adamson, Regulation of Assisted Reproduction Technologies in the United States, 39 FAM. L.Q. 727, 735 (2005) ("[B]oth SART and ASRM have continued to cooperate with and lead initiatives with other organizations and institutions that are stakeholders in ART. These include the CDC, FDA, NIH, FTC, and members of Congress as well as professional
the College of American Pathologists ("COP") created the Reproductive Laboratory Accreditation Program (RLAP). That program proffers standards for reproductive laboratories and performs on-site accreditation every two years. SART represents 85% of the clinics practicing ART in the United States and as of 2005, two-thirds of SART programs were RLAP accredited. ASRM appears to adopt an "interim" embryo status position, "while an embryo deserves greater respect than accorded other human tissue, since it has the potential to become a human person, it is not accorded the respect of an actual human being." This standing would seem to dictate heightened standards for embryo laboratories, but that is not the case. The RLAP directives do not discuss embryo donation or storage specifically and they leave particular procedures to the individual facilities. This is problematic as fertility clinic's voluntary procedures vary tremendously and may not be followed at all. While there is very little voluntary embryo regulation, there is no voluntary surrogate regulation, other than entity specific standards such as screening.

organizations such as the American Medical Association (AMA), American College of Obstetricians and Gynecologists (ACOG), the American Bar Association (ABA) and consumer organizations, RESOLVE, the National Fertility Organization, and the American Fertility Association (AFA). SART even conducts its compliance visits in conjunction with the FDA. See Reddix-Smalls, supra note 128, at 674.

172. Adamson, supra note 171, at 732–33.
173. Id. at 733.
174. See supra note 169.
175. Adamson, supra note 171, at 733.
177. Instead of identifying particular processes or procedures, the Standards speak in general terms. COLLEGE OF AMERICAN PATHOLOGISTS, REPRODUCTIVE LABORATORY ACCREDITATION PROGRAM STANDARDS FOR ACCREDITATION 4 (2009), available at: http://www.cap.org/apps/docs/laboratory_accreditation/build/pdf/standards_repro.pdf ("There must be a manual(s) in the laboratory describing all procedures in sufficient detail to assure reproducibility and competence in the handling of gametes.").
178. See Alvare, supra note 129, at 12–19 (describing a variety of procedures that fertility clinics engage egg donation and embryo donation).
V. BECOMING OR UTILIZING A “CYBER PARENT”\textsuperscript{181}

\textbf{A. Potential Parental Rights}

There are three common classifications of reproductive tissue donors, “known,”\textsuperscript{182} “unknown”\textsuperscript{183} and “identified.”\textsuperscript{184} Most embryo donorship is unknown as the recipients never know the identity of the donor(s).\textsuperscript{185} When donor identity is unknown the donor has no parental rights, so it is unlikely (although not impossible)\textsuperscript{186} that an embryo donor would have parental rights. Surrogates may have a very different legal position.

Surrogacy can create very strong ties between the surrogate and the resulting child\textsuperscript{187} and disputes can arise over custody. The fundamental question at issue is whether surrogates have parental rights over resulting children. The deceptively simple answer is, perhaps. Courts currently have very little precedent,\textsuperscript{188} but a thread may be developing.

\textsuperscript{181} “A person who provides, online, human reproductive materials he or she biologically produced.”

\textsuperscript{182} There is not yet any case law on point addressing embryo donorship so we borrow from the well-established case law regarding sperm donation. A “known” sperm donor’s identity is known to the prospective mother. See Justyn Lezin, Misconceptions: Unjust Limitations on Legally Unmarried Women’s Access to Reproductive Technology and Their Use of Known Donors, 14 HASTINGS WOMEN’S L.J. 185, 188 (2003) (noting “known donors” as an alternative to anonymous donors and identifying them as “men with whom they are not otherwise sexually or romantically intimate”). Courts tend to order child support more often from known donors, regardless of any intent of the adult parties. See, e.g., Phillips v. Irons, 2005 WL 4694579 at *2 (Ill. App. Ct. 2005) (support ordered for child conceived after woman self-inseminated following oral sex); S.F. v. State ex rel T.M., 695 So. 2d 1186, 1187 (Ala. Civ. App. 1996) (support ordered for child conceived when father was passed out drunk); Faske v. Bonanno, 357 N.W.2d 860, 861 (Mich. Ct. App. 1984) (disallowing misrepresentation of contraceptive protection as a defense).

\textsuperscript{183} An “unknown” or “anonymous” sperm donor is one whose identity or other personal contact information is undisclosed to either the prospective mother or the child.

\textsuperscript{184} An “identified” sperm donor donates understanding that any resulting child is given the donor’s personal contact information and personal identification (name, address, city of birth, date of birth, etc) once the child reaches the age of 18.


\textsuperscript{186} However it is possible, particularly in a designer embryo purchase, that the true parent(s) could be known as suppliers would likely want aspects of parentage known so as to increase value of the embryo. It is also probable that the parent(s) would be known in a donation that involves no embryo supplier, although, these are likely to be quite rare.


\textsuperscript{188} See See Miriam Perez, Surrogacy: The Next Frontier for Reproductive Justice, RH REALITY CHECK (Feb. 23, 2010), http://www.rhrealitycheck.org/blog/2010/02/23/surrogacy-next-frontier-reproductive-justice (“The precedents set by the rare cases that do go to court make up the body of case law that affects the practice of surrogacy nationwide.”).
The most famous surrogate custody case, and certainly the first to garner strong public attention, was In the Matter of Baby M. Baby M was a traditional surrogacy case. Mary Beth Whitehead was artificially inseminated with William Stern’s sperm and became the surrogate mother of the child. Whitehead gave birth to a daughter. Within 24-hours of transferring custody to the Stems, Whitehead asked for the baby back and threatened suicide. She then refused to return the baby to the Stems and left New Jersey, taking the infant with her. The New Jersey Superior Court awarded custody of Baby M to the Stems.

On appeal the Supreme Court of New Jersey invalidated surrogacy contracts as against public policy, remanding the case to family court. That court awarded William Stern custody and Mary Beth Whitehead the parental right of visitation. Baby M is the most famous surrogacy/parental rights case, but it is not dispositive of those issues in all jurisdictions. In fact, if similar issues arose in another state the result might be quite different. As examples, Ohio would not invalidate a surrogacy contract under the theory that such contracts per se violate public policy and Massachusetts has invalidated a surrogacy agreement on public policy grounds but the articulated concerns were different from those in Baby M.

189. 537 A.2d 1227 (N.J. 1988).
190. Id. at 1236.
191. Id.
192. Id. at 1236–1237.
193. Id. at 1237.
194. Id. at 1238.
196. In re Baby M, 537 A.2d at 1264.
198. While it is the most famous, it is not the most extreme in terms of result. In Baby M the surrogate was awarded the parental right of visitation, but there is one case where the surrogate was awarded primary custody. See 70 Pa. D. & C.4th 261, 308 (2005).
199. At least one author argues that surrogacy regulation should be decided exclusively at the state level. Dale Elizabeth Lawrence, Surrogacy in California: Genetic and Gestational Rights, 21 GOLDEN GATE U. L. REV. 525, 527 (1991) (arguing that surrogacy regulation should be decided exclusively at the state level).
200. See, e.g., J.F. v. D.B., 879 N.E.2d 740, 741 (Ohio 2007) (“We conclude, therefore, that Ohio does not have an articulated public policy against gestational–surrogacy contracts. Consequently, no public policy is violated when a gestational–surrogacy contract is entered into.”). The court noted that a traditional surrogate might “have a different legal position.” Id. at 742.
201. See R.R. v. M.H., 689 N.E.2d 790, 797 (Mass. 1998) (“We simply decline, on public policy grounds, to apply to a surrogacy agreement of the type involved here the general principle that an agreement between informed, mature adults should be enforced absent proof of duress, fraud, or undue influence.”).
and that court recognized that a valid surrogacy agreement could be created in Massachusetts.\textsuperscript{202} While the above cases focused on public policy, there may be another way to assess the likelihood of surrogate parental rights; determine who "mom" really is.

\textit{Johnson v. Calvert}\textsuperscript{203} arose out of a dispute regarding a surrogacy contract. Mr. Johnson's sperm was mixed with Mrs. Johnson's eggs and the fertilized eggs were implanted in the surrogate.\textsuperscript{204} Shortly before birth the surrogate threatened to keep the child unless she was paid monies she contended due under the agreement.\textsuperscript{205} Both sides sought judicial declaration as the lawful parent(s) of the unborn child.\textsuperscript{206} The court had to choose between the biological parents and the birth mother. It held that "...she who intended to procreate the child – this is, she who intended to bring about the birth of the child that she intended to raise as her own – is the natural mother."\textsuperscript{207} The end result was that the biological mother got custody, not the surrogate. So, California law is clear about who the true mother is in a surrogacy arrangement. That should then allow us to conclude that a surrogate has no parental rights, at least in California, but that may not be true.

There is a potentially critical footnote in \textit{Johnson}, it states "...in a true 'egg donation' situation, where a woman gestates and gives birth to a child formed from the egg of another woman with the intent to raise the child as her own, the birth mother is the natural mother under California law (emphasis added)."\textsuperscript{208} That means that where there is no biological link between the "intended" mother and the resulting child, the birth mother (the surrogate), is the mother. The surrogate would then have full parental rights. This footnote is significant because, while it was not mandatory authority, a New York appellate court cited \textit{Johnson} in \textit{McDonald v. McDonald}\textsuperscript{209} and held that the non-biological mother, in a true egg donation case, was the lawful mother.\textsuperscript{210} Of course it is possible that the surrogate would not have parental rights if she contacted them away, but that assumes the applicable state recognizes the validity of surrogacy

\textsuperscript{202} \textit{Id.} ("If no compensation is paid beyond pregnancy-related expenses and if the mother is not bound by her consent to the father's custody of the child unless she consents after a suitable period has passed following the child's birth, the objections we have identified in this opinion to the enforceability of a surrogate's consent to custody would be overcome.").

\textsuperscript{203} 851 P.2d 776, 778 (Cal. 1993).

\textsuperscript{204} \textit{Id.}

\textsuperscript{205} \textit{Id.}

\textsuperscript{206} \textit{Id.}

\textsuperscript{207} \textit{Id.} at 782.

\textsuperscript{208} \textit{Id.} at 782 n.10.


\textsuperscript{210} \textit{Id.} at 12.
contracts. That assumption should not be made.\textsuperscript{211} So, does a surrogate have parental rights? Perhaps.

\section*{B. Potential Parental Responsibilities}

Historically, biological parents had financial responsibilities for their children,\textsuperscript{212} but embryo donors would not want such obligations and likely would not have them under common or statutory law. As previously discussed, most embryo donation is anonymous because parties contract with fertility clinics to provide them with an embryo; they have no contact with the donor and do not know the donor’s identity.\textsuperscript{213} This makes them “unknown” donors. Common law is well settled that unknown tissue donors usually have no parental responsibilities, while known donors do.\textsuperscript{214} Twelve states also statutorily address this issue.\textsuperscript{215} The most common position is that a donor is not a parent of a child conceived by means of assisted reproduction.\textsuperscript{216} Additionally, tissue donors may be able to contract away parental responsibilities, although this approach is far from well

\begin{footnotes}
\textsuperscript{211} See supra notes 147–150 and accompanying text. See also Vanessa S. Browne–Barbour, \textit{Bartering for Babies: Are Preconception Agreements in the Best Interests of Children?}, 26 WHITTIER L. REV. 429, 445 (2004) (“A survey conducted in December 2000 revealed that approximately eleven states expressly permitted gestational agreements by statute or case law. Six states statutorily declared such agreements void. Approximately eight states enacted statutes to ban gestational agreements that pay compensation to the gestational woman . . . . The survey further revealed that courts in two states refuse to recognize gestational agreements.”). For further discussion and breakdown see \textit{GEORGIA STATE UNIVERSITY – COLLEGE OF LAW, Primary Sources Surrogacy Agreements}, http://libguides.law.gsu.edu/content.php?pid=122829&sid=1055848 (last visited Mar. 21, 2011).


\textsuperscript{213} See supra note 185 and accompanying text (noting that recipients never learn donor’s identity); \textit{but see supra} note 177 (stating that the RLAP directives are general in nature).

\textsuperscript{214} See, e.g., Ferguson v. McKiernen, 60 Pa. D. & C. 4th 353, 364 (2002) (stating the general rule: “[w]e agree with the defendant that if the use of donors in artificial insemination proceedings is permitted in the Commonwealth of Pennsylvania, the donor should be protected from [parental] liability to the donee”).


\textsuperscript{216} See, e.g., DEL. CODE ANN. tit. 13, §§ 8–102, 8–702 to –703 (2009 & Supp. 2010).
settled.217 Currently embryo donors are not likely to have parental responsibilities; that may not be the case for surrogates.218

As discussed earlier, a surrogate may have parental rights either due to a biological relationship to the resulting child or because the applicable jurisdiction holds that the birth mother is the legal mother.219 If she can have parental rights, it is only logical that she would have parental responsibilities. It is possible that she might contract those away but, as previously discussed, surrogacy contracts are not enforceable in all jurisdictions.220

VI. POTENTIAL LIABILITY

A. The Embryo Business

1. Warranties

Article 2 of the Uniform Commercial Code (UCC) governs the sale of goods.221 While there is a great deal of discussion of whether or not human reproductive materials should be goods,222 we contend, for purposes of this


218. The opposite may be true as well. If UPA 2002 was adopted, specifically Article 8, prospective parents who entered into non-validated surrogacy agreements, and later refused to “adopt” the resulting child, could be responsible for support of the child. See UNIF. PARENTAGE ACT art. 8 cmt.

219. See supra notes 181–211 and accompanying text.

220. See supra text accompanying notes 147–150.


222. As we will discuss, human embryos are legally be bought and sold. However, the “properness” of such transaction is far from settled on an economic theory, ethical, or moral basis. See, e.g., Kenneth Baum, Golden Eggs: Towards the Rational Regulation of Oocyte Donation, 2001 BYU L. Rev. 107, 162–63 (2001) (“The rationales for the prohibition of the commodification of organs are either internally irrational or are not applicable to oocyte donation due to its unique technical and social aspects. Additionally, oocyte-specific arguments misconstrue the potential applications of such technology and fail to conform with broader social treatments of noncoital reproduction and freedom to contract.”); Gregory Pence, De–Regulating and De–Criminalizing Innovations in Human Reproduction, 39 CUMB. L. Rev. 1, 7 (2009) (“Public intellectuals ... claim that such innovation wrongly commodifies life. I believe that the opposite is true: money fueled stupendous breakthroughs in assisted reproduction and such market forces will continue to be good for babies and for the infertile couples who want them.”); Radhika Rao, Coercion, Commercialization, and Commodification: The Ethics of Compensation for Egg Donors in Stem Cell Research, 21 BERKELEY TECH. L.J. 1055, 1058 (2006) (“Allowing human eggs to be bought and sold ... treats the sacred components of human life as a form of property, engendering an attitude of disrespect for actual person.”); Camille S. Williams, Women, Equality, and the Federal Marriage Amendment, 20 BYU J. PUB. L. 487, 511 (2006) (“In a sense, these
article, that human embryos are goods. The UCC defines "good[s]" as "all things...which are movable at the time of identification to the contract for sale...". Embryos are transported from place to place and embryos are sold. Embryos are goods and their sale can be governed by the UCC.

a. Express Warranties

Pursuant to UCC Article 2, any oral or written promise relating to the good at issue can create an express warranty. Accordingly, statements that an embryo donor was screened for, or is free from, certain diseases or medical conditions can constitute an express warranty. Embryo suppliers attempt to distinguish themselves by promoting such standards in their web advertising, thus creating express warranties.

Much of the discussion on this topic focuses on whether or not reproductive materials are, or should be, "property." See, e.g., Julia D. Mahoney, The Market for Human Tissue, 86 VA. L. REV. 163, 181-82 (2000) ("Whoever has the power to donate (or refuse to donate) the organ can be said to possess a property right, albeit of a limited kind."); Rao, supra, at 1066 ("Constructing the body as a form of property...would imply not only freedom from physical invasion, but also freedom to instrumentalize the body by technologically manipulating it or otherwise putting it to productive use."); Andrew Wancata, No Value for a Pound of Flesh: Extending Market-Inalienability of the Human Body, 18 J.L. & HEALTH 199, 223 (2004) ("Legal scholars and property theorists, as well as judges, have found it very difficult to speak of human body parts without resorting to masking them in property terminology."); see generally Elizabeth E. Appel Blue, Redefining Stewardship over Body Parts, 21 J.L. & HEALTH 75, 85-95 (2008) (contrasting benefits and shortcomings of viewing body parts as property); R. Alta Charo, Skin and Bones: Post-Mortem Markets in Human Tissue, 26 NOVA L. REV. 421, 424-30 (2002) (examining historical treatments of the market value of corpses and human tissue).

223. UCC § 2-105 (2010).

224. "Movement" occurs when the embryo is implanted into the uterus.


226. U.C.C. § 2-313(1)(a) ("Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.").

227. See, e.g., Pregnancy with Donated Embryos, supra note 225 ("All donors who choose to anonymously donate through this program are thoroughly screened for infectious diseases and meet all state and federal regulation. Donors that provide embryos have also been screened for health risks including inherited disorders, mental illness, and other traits that would be undesirable
Some embryo suppliers also specifically warrant attributes or qualifications of donors through donor profiles, although they may actually warrant more than they expect. While suppliers may believe they only promise that a donor has certain characteristics, they may actually warrant characteristics of a resulting child. An oral or written promise creates an express warranty, but a sample or model also does so when it is "part of the basis of the bargain." If a photograph or biography of a donor constitutes a model, the purchaser may expect the resulting child to have the model's characteristics. Most reasonable people recognize that a child's characteristics may differ greatly from those of a genetic parent, but it is not well settled that reliance on an express warranty must be to most parents.

Unfortunately, it may be that these promises are regularly broken. See Martin Curie-Cohen et al., Current Practice of Artificial Insemination by Donor in the United States, 300 NEW ENG. J. MED. 585, 586 (1979) (revealing that many physicians failed to adequately screen donors for diseases and many screenings were limited to merely questioning donors about common familial diseases); Kerry Cork, Comment, Test-Tube Parents: Collaborative Reproduction in Minnesota, 22 WM. MITCHELL L. REV. 1535, 1537 (1996) (noting that while it is possible that physicians have engaged in more rigorous screening in intervening years, there are few safeguards to actually ensure such practices).

Most profiles and databases are proprietary and cannot be accessed by the general public. See, e.g., MIRACLES WAITING.ORG, http://miracleswaiting.org/membersonly3/modules/sections/ (last visited Jan. 11, 2011). We expect the embryo market to develop similarly to the human egg market. We provide the following egg examples to give context to what embryo donor advertising is likely to look like.


229. U.C.C. § 2-313(2)(a) (2010) ("Any affirmation of fact or promise made by the seller which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.").

230. To our knowledge, no court has decided this specific issue. It is impossible to accurately predict how a court would likely rule as the UCC provides no guidance for determining what constitutes a model.

231. See, e.g., California Cryobank Introduces Celebrity Look-a-Likes™ for Sperm Donors, CALIFORNIA CRYOBANK, http://www.cryobank.com/About-us/Press-Releases/template.cfm?id=1396 ("The number one client question we get is 'Who does this donor look like?' says Scott Brown, Communications Manager for California Cryobank. 'We decided this would be a great way to give thorough and consistent answers. Clients love it. Donor Look-a-Likes™ has only been available for a week and our website traffic is up 50%.'"). See also E:60 Sperm U, ESPN, http://espn.go.com/video/clip?id=3554822&categoryid=null (last visited Jan. 16, 2011)
Embryo suppliers that fail to meet promised standards of donor screening would certainly be liable for breaching expressed
Suppliers making a promise of resulting characteristics through a model, and failing to deliver those characteristics, may also be liable for such breach.

warranted are false . . . , the buyer may prevail in his claim for breach of warranty’


Kentucky: Overstreet v. Norden Lab., Inc., 669 F.2d 1286, 1291 (6th Cir. 1982) (citation omitted) ("A warranty is the basis of the bargain if it has been relied upon as one of the inducements for purchasing the product.");

Nebraska: Vlasin v. Shuey, No. A-91-324, 1993 WL 61875, 1 (Neb. Ct. App. Mar. 9, 1994) ("Nebraska case law has long held that the assertion of a fact or promise by a seller concerning goods, which is relied upon by the buyer and which tends to induce the buyer to purchase the goods, is an express warranty.");

Hillcrest Country Club v. N.D. Judds Co., 461 N.W.2d 55, 61 (Neb. 1990) (citation omitted) ("This court has held that "since an express warranty must have been "made part of the basis of the bargain," it is essential that the plaintiffs prove reliance upon the warranty.");

Wendt v. Beardmore Suburban Chevrolet, Inc., 366 N.W.2d 424, 428 (Neb. 1985) (citation omitted) ("Since an express warranty must have been "made part of the basis of the bargain,' it is essential that the plaintiffs prove reliance upon the warranty.");

Indiana: Royal Bus. Machs., Inc. v. Lorraine Corp., 633 F.2d 34, 44 n.7 (7th Cir. 1980) (citation omitted) ("The requirement that a statement be part of the basis of the bargain in order to constitute an express warranty "is essentially a reliance requirement....");

Kansas: Ray Martin Painting, Inc. v. Ameron, Inc., 638 F. Supp. 768, 772 (D. Kan. 1986) (citation omitted) ("Whether the statements about the coating ability of the Amerlock created an express warranty depends on whether they were "part of the basis of the bargain" which, under Kansas law, requires some type of reliance on the part of the buyer.");

Mississippi: Global Truck & Equip. Co., Inc. v. Palmer Mach. Works, Inc., 628 F. Supp. 641, 652 (N.D. Miss. 1986) ("Given the express language used in U.C.C. section 2-313 and the majority of the cases holding that the buyer must both be knowledgeable of and rely on the affirmation of fact before an express warranty is created, the court concludes that the plaintiff failed to prove by a preponderance of the evidence that the statements contained in the Palmer brochure were relied upon by Randall prior to or contemporaneously with the making of the contract between Global and Palmer. Therefore, recovery under the theory of breach of express warranty is also precluded.");

Washington: Casper v. E.I. Du Pont de Nemours & Co., 806 F. Supp. 903, 909 (E.D. Wash. 1992) (citation omitted) ("If, in fact, Mr. Warr assured Brad Casper that Velpar could be applied safely during November or December of 1990, and Mr. Casper relied upon that affirmation of fact in deciding to have PureGro treat his fields, an express warranty was created.").
b. Merchantability

"Unless excluded or modified, a warranty that the goods shall be merchantable is [automatically] implied in a contract for their sale if the seller is a merchant with respect to goods of that kind."

"Merchantable" means the goods "are fit for the ordinary purposes for which [they] are used." The U.C.C. defines a merchant as:

A person who deals in goods of the kind or otherwise by his occupation holds himself out as having knowledge or skill peculiar to the practices or goods involved in the transaction or to whom such knowledge or skill may be attributed by his employment of an agent or broker or other intermediary who by his occupation holds himself out as having such knowledge or skill.

Most embryo suppliers are merchants, for purposes of the U.C.C., pursuant to the "deals in" definition, and quite probably under "knowledge and skill" as well. Most embryo donors probably are not merchants under "knowledge and skill," but might be under the "deals in" standard.

Embryo donors and suppliers have little to fear when it comes to the issue of breach of warranty of merchantability because this warranty only requires that embryos be "reasonably fit" for their ordinary use (attempted conception). The warranty does not guarantee a resulting child, much less one with specific characteristics. Absent extreme circumstances it is unlikely that donors or suppliers would breach this warranty.

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233. U.C.C. § 2–104(1).
234. Id. at § 2–314(2)(c).
235. Id. at § 2–104(1).
236. For an analogy, see Jayanti supra note 222, at 433 ("[T]he egg [donor] is usually less knowledgeable than the 'consumer,' the recipient parents.").
237. See Jayanti, supra note 222, at 432 (contending that human tissue donors are "...not often 'engaged in the business' of selling or otherwise distributing [tissue]" and cannot be merchants under the U.C.C.). See, e.g., County of Milwaukee v. Northrop Data Systems, Inc., 602 F.2d 767, 771 (7th Cir.1979) (noting that the question of whether a party is a merchant for purposes of the U.C.C. is a question of law). As such determination must be made on a case by case basis, we cannot say that all embryo donors are merchants and subject to the U.C.C.. Certainly some may be and it is likely that most, if not all, egg suppliers are merchants for purposes of the U.C.C. as well.
238. Obvious examples are providing embryos damaged during collection, storage, or transportation such that they cannot be gestated.
239. While rare, embryo donors and suppliers are protected by statute in some jurisdictions from this cause of action and the one discussed next. As an example, South Carolina has a statute that states "The implied warranties of merchantability and fitness shall not be applicable to a contract for the sale, procurement, processing, distribution, or use of human tissues . . . ." S.C. Code Ann. § 44–43–10 (2002 & Supp. 2010). As previously discussed, the FDA classifies human embryos as reproductive tissue. See supra text accompanying note 123.
c. Fitness for a Particular Purpose

An implied warranty of fitness for a particular purpose exists “where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller’s skill or judgment to select or furnish suitable goods.” Responsible embryo donors and suppliers presently have little to fear from this warranty because embryos satisfy only the general purpose of attempted procreation, not any promise of characteristics in a resulting child. ART has not yet advanced to the point where we can control specific aspects of reproduction. However ART is evolving rapidly and, if the time comes when we can control those types of characteristics, then donors and suppliers must be aware that asking prospective recipients to designate a donor’s personal characteristics can create a warranty of fitness for a particular purpose. A prospective client could view such questions as a “checklist” for the desired characteristics of the resulting child. They could then view such items as akin to a menu and they would expect to get what they ordered. Human tissue suppliers currently ask recipients for certain designations but, for now, they remain attempts to discern preferences, not actionable promises.

2. Strict Product Liability

The rational for the tort of strict product liability is simple; products can cause harm or injury to users and manufacturers, sellers, and distributors should absorb the cost of these injuries rather than end-users. Strict product liability has specific elements that an injured party must

241. As examples, it cannot yet control characteristics such as height, eye color, intelligence, or athleticism.
242. This is a different conclusion than reached under breach of express warranty because it is a different cause of action. The seller creates an express warranty, but a warranty of fitness for a particular purpose is actually created by the buyer, when he or she causes a seller to know that the buyer is relying on the seller’s expertise in making a purchase decision. See supra text accompanying note 231. Admittedly it is an assumption, but we assume that an embryo donor or supplier (seller) who is aware that a would-be donee (buyer) is relying on their expertise, would inform the would-be donee that there is no guarantee that a child will have the characteristics of the donor. We also understand that a donor or supplier may know of a donee’s particular purpose (donee said that she wants an embryo that used eggs from a 5’4”, 115 lb., brown-haired, blue-eyed world class cyclist because donee wants a child that will grow up to be a 5’4”, 115 lb., brown-haired, blue-eyed world class cyclist) but might not inform the donee that a child conceived using eggs from this donor may not have these characteristics. In that case there is a breach of warranty of fitness for a particular purpose.
satisfy to recover. While these elements are addressed collectively and separately, all discussions encompass the following:

1. There must be a product that causes an injury. The product must be sold in the same condition, or substantially the same condition, as when reaching the consumer or user.245

2. The product must contain a defect and the defective condition must make the product "unreasonably dangerous."246 "Unreasonably dangerous" is . . . dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics.247 There are three potential types of defects: manufacturing, design, and warning.248

3. Finally, the plaintiff must prove actual injury caused by the product. An injury is actual harm or loss to the party's person, land, or chattel.249

There is no question that reproductive tissue can cause damage to a recipient, resulting fetus, or resulting child, but this does not automatically mean that strict product liability is a viable cause of action in such situations. In order to assess potential liability under this doctrine we must determine if the requisite elements can be satisfied. While no case has decided this issue, one can provide a partial template for analysis.

American Economy Insurance v. Schoolcraft251 contained a variety of strict product liability derivative claims252. In that case one of the plaintiffs was implanted with embryos that carried the cystic fibrosis gene. She gave birth to fraternal twins. The daughter was quickly diagnosed with the disease.253 American Economy did not address the merits of any of its strict product liability causes of action, so we begin by addressing a question it did not: are embryos "products?"

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246. Id. at § 402A(1) ("One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property").
247. Id. at § 402((A), cmt. i.
248. See generally William Powers, Jr., A Modest Proposal to Abandon Strict Products Liability, 1991 U. ILL. L. REV. 639, at n. 50 (1991) ("[Other courts] use a different test depending on whether the case involves a manufacturing defect, a design defect, or a warning.").
250. See, e.g., Laurence Mascola & Mary E. Guinan, Screening to Reduce Transmission of Sexually Transmitted Diseases in Semen Used for Artificial Insemination, 314 NEW ENG. J. MED. 1354, 1354 (1986) ("[S]exually transmitted organisms have been transmitted during artificial insemination by donor, and such transmission can cause . . . disease in the recipient woman and may harm the fetus or newborn.").
252. Id. at 1237.
253. Id.
A product is defined as "something produced by human or mechanical effort or by a natural process."\(^{254}\) It is also a "commodity for sale."\(^{255}\) Embryos are created by a natural process in the female body and can be sold to prospective parents. Embryos are products.

The second element is that the embryo had a defect that made it unreasonably dangerous. A product is defective when it is dangerous beyond the expectations of an ordinary user.\(^{256}\) If an ordinary user would not expect an embryo to carry a strong predisposition toward a specific disease, in this case cystic fibrosis, the embryo is defective.

Finally, there must be an actual injury or loss to person or property caused by the defective embryo. At a minimum, a child who is born with cystic fibrosis has experienced, and will experience, several legally recognized and compensable injuries: she has been damaged in her enjoyment of life, suffered and will suffer physical and mental pain, endured past medical expenses, and is very likely to incur future medical expenses.\(^{257}\) The end result of this analysis is that human embryos can be products that have defects resulting in injury and triggering strict product liability. Embryo donors and suppliers have significant reason to fear this cause of action.\(^{258}\)

3. Negligence

Claimants have alleged negligence in holding facilities' methods, storage and dissemination of human reproductive materials. These suits involved two different contentions. In the first, the claimant wanted reproductive materials stored and distributed to a specified recipient, but the facility failed.\(^{259}\) For purposes of this article, we term these "lost embryo"
cases because, even if the embryo was used for conception, it did not reach the intended recipient. In the second, a child was born with a birth defect attributable to an embryo that should have been removed through adequate screening or testing. We term these “defective embryo” cases.

a. Lost Materials and Wrongful Birth

There are a number of reported embryos cases. According to one source, such accidents are exceedingly rare, but perhaps not as rare as he espouses. In fact, they might happen with disturbing regularity. We contend that lost materials cases will become even more common as people increasingly utilize forms of ART, but are claimants likely to recover under a negligence theory? We must review the traditional elements of that cause of action. In several jurisdictions, including Massachusetts, negligence is the basis for such actions. See, e.g., Jeter v. Mayo Clinic Ariz., 121 P.3d 1256, 1260 (Ariz. Ct. App. 2005) (the central claim of the case was negligent destruction or loss of pre-implantation embryos, the claimants were very concerned that the missing embryos may have been mistakenly implanted in another woman); Robert B. & Denise B. v. Susan B., 135 Cal. Rptr. 2d 785 (2003) (involving a lawsuit against a woman who gave birth to a child as a result of the fertility clinic placing the wrong embryo in the woman’s uterus); Creed v. United Hosp., 600 N.Y.S.2d 151, 152 (N.Y. App. Div. 1993) (involving an action for negligence against a company, hospital, and physician for implanting a wife’s fertilized ova in the wrong woman); Perry–Rogers v. Obasaju, 282 A.2d 231 (N.Y. App. Div. 2001) (involving a couple whose embryo was planted into another woman’s uterus); Stephanie Smith, Fertility Clinic to Couple: You Got the Wrong Embryos, CNN NEWS (Sept. 23, 2009), available at http://articles.cnn.com/2009-09-22/health/wrong.embryo.family?_s=PM:HEALTH; Quincy Couple Sue Boston Hospital Over Destroyed Embryos, PATRIOT LEDGER (May 21, 2009), available at http://www.patriotledger.com/news/cops_and_courts/x1125039407/Quincy-couple-sue-Boston-hospital-over-destroyed-embryos.

261. See Smith, supra note 260 (“Cases like these, while tragic, are exceedingly rare, said Dr. David Adamson, a reproductive endocrinologist and past president of the American Society for Reproductive Medicine (ASRM).”). This article further states that “‘[t]here are well in excess of 100,000 embryo transfers every year in this country,’” and “‘[t]he fact that this happens once in several hundred thousand embryo transfers means the majority of the time, systems do protect this from taking place.’” Id. This is suspect because the “systems” the doctor appears to refer to are ASRM protocol recommendations such as labeling embryos with the patient’s name and/or social security number or otherwise specifically identifying ownership. Id. However, these are recommendations only and, as previously discussed, there is no mandated quality control. See supra notes 176–80 and accompanying text.

of action: duty, breach, proximate causation, and harm\textsuperscript{263} to determine potential liability.

It is easy to envision victims in lost embryo situations suing both the medical professionals involved and the storage entity (such as a fertility clinic), however there is one initial, and critical, difference. While medical professionals’ duties are well established,\textsuperscript{264} the legal duty of storage entities is not.\textsuperscript{265} This uncertainty is the direct result of a lack of laws governing the embryo industry. As previously discussed there is little federal regulation addressing embryo donor storage\textsuperscript{266} and we are not aware of any at the state level. Statutes can create legal duties, but statutory regulation is almost non-existent, so we cannot say there is any truly established duty. Without a clearly defined duty, it is very difficult to prove a resulting breach.\textsuperscript{267}

Unlike duty and breach, proximate cause in lost embryo cases is easily established. When embryos did not reach the intended recipient, and additional materials are not available from that donor, the contention is that but for defendant’s failure to provide the appropriate embryos to the appropriate recipient, conception from that particular donor would have been possible. In the case where embryos were provided to the wrong recipient, and conception resulted, the contention is that but for the defendant’s failure to provide the embryos to the intended recipient, the resulting child would not exist.

Harm is highly problematic in lost embryo cases because a court must determine whether a) a party has suffered actual damage and, if so b) how to calculate such damage.\textsuperscript{268} As discussed under causation, lost embryo damages could arise in two different scenarios. The first is where the opportunity to procreate using a specific donor is simply gone because

\textsuperscript{263} See Grubbs v. Barbourville Family Health Ctr., 120 S.W.3d 682, 696 (2003) (involving a case of negligence where the court went through each element and analyzed them).

\textsuperscript{264} For example, in New York, a physician has a duty to use reasonable care and exercise the degree of skill and knowledge that is ordinarily possessed by physicians in the community. See Pepe v. United States, 599 F. Supp. 798, 802 (E.D.N.Y. 1984) (stating that the standard of whether a doctor is liable for malpractice is if he fails to use his best judgment in applying his knowledge and skill); Pike v. Honsinger, 49 N.E. 760, 762 (N.Y. 1898) (stating that the doctor had a duty to use reasonable care and diligence in exercising his skill); and Zellar v. Tompkins Cmty. Hosp., 508 N.Y.S.2d 84, 86 (N.Y. App. Div. 1986) (stating that a doctor must use his professional skill and judgment).

\textsuperscript{265} But see Jaynti, supra note 222, at 441 (arguing that a duty could be recognized under a “risk imports relation” theory). There are no cases of record finding such a duty.

\textsuperscript{266} See supra notes 121–29 and accompanying text.

\textsuperscript{267} See Jaynti, supra note 222, at 436 (stating that the egg donation child must prove the egg donor owed him or her a duty of care before proving that it was breached in order to have a negligence case).

\textsuperscript{268} See generally Frisina v. Women & Infants Hosp., 2002 WL 1288784 at *1 (R.I. Super. 2002) (showing that the claim will generally be emotional distress).
embryos were lost and the donor cannot produce more. There are two cases on point here. In *Doe v. Irvine Scientific Sales Co.* stored embryos were contaminated and rendered unusable. In *Frisina v. Women and Infants Hosp. of R.I.* the hospital lost or destroyed stored embryos. The court denied recovery in *Doe* because the donors could not establish the requisite physical injury, but the *Frisina* court allowed recovery based on emotional distress absent physical trauma. While this is, admittedly, a very small sample of cases, it appears that the majority of jurisdictions would follow the *Doe* rationale because most jurisdictions deny recovery absent physical injury. Assuming this is correct, it is unlikely that defendants will be found liable when stored embryos are lost.

In the second lost embryo scenario a recipient received, and utilized, materials from someone other than the anticipated donor, resulting in the birth of a healthy baby. At least one author has been highly critical of the basis for damages under such circumstances. And, while the suit did not assert a negligence cause of action, at least one court held that a couple whose healthy child was conceived using lost embryos was not entitled to recovery. This decision is not surprising when this lost embryo claim is juxtaposed with the “wrongful birth” cause of action.

270. Id. at 739.
272. Id. at *1-2.
275. *See generally Ingrid H. Heide, Negligence in the Creation of Healthy Babies: Negligent Infliction of Emotional Distress in Cases of Alternative Reproductive Technology Malpractice without Physical Injury, 9 J. MED. & L. 55, 57 (2005)* (stating that the lack of a physical injury seems to leave the victims of fertility malpractice without a compensable injury). However, a claimant may recover for loss of property in such claims and physical injury would not be required. *See Jeter v. Mayo Clinic Ariz.*, 121 P.3d 1256, 1273 (Ariz. Ct. App. 2005) (“While a party cannot bring a claim for negligent infliction of emotional distress based merely on the negligent destruction of property, a party can recover damages for emotional distress arising from the tortious loss of property if the emotional distress is unrelated to the pecuniary loss.”); *Frisina*, 2002 WL 1288784 at *10 (“[T]he Court finds . . . that recovery for damages for emotional distress based on the ‘loss of irreplaceable property,’ the loss of their pre-embryos, is permissible”).
277. *See Chris Snow, Note, Harnicher v. University of Utah Medical Center: Fertility Treatment and the Duty of Care, 2 J.L. FAM. STUD. 63, 67–68 (2000)* (addressing the tort of “negligent infliction of emotional harm” and denying recovery as plaintiffs could not prove the requisite element of resulting “bodily harm” as part of their injury and damage). *But see Chambliss v. Health Sci. Found.*, 626 S.E.2d 791, 794 (N.C. Ct. App. 2006) (awarding $85,000 in compensatory damages and $350,000 in punitive damages to a woman who was inseminated with lost materials, although the cause of action and the jury finding regarding bodily injury are unclear in the appellate opinion).
Wrongful birth actions are brought by the parents of an impaired child for the emotional and financial damages they suffer from the birth of that child. At least one author contends that wrongful birth cases have some judicial support and acceptance. If true, this could increase the likelihood that damages are awarded in lost embryo cases because, at base, both wrongful birth and lost materials actions seek damages for birth of a child. However, there are two significant differences in the claims that make it unlikely that such damages would be awarded in lost embryo cases. First, in a wrongful birth claim the child is impaired, in a lost embryo case the child is not. Second, the assertion that wrongful birth is judicially acceptable is true, but far from universal. There are few recorded wrongful birth decisions and none since the 1980s. Some state courts refuse to recognize wrongful birth causes of action absent statutory creation. Some state legislatures have passed laws refusing to recognize wrongful birth causes of action. Only one state, Maine, statutorily recognizes wrongful birth, and then only for a limited cause of action.

282. See, e.g., Moores v. Lucas, 405 So.2d 1022, 1023 (Fla. Dist. Ct. App. 1981) (involving a lawsuit of negligence in that the parents were not warned of pregnancy risks which resulted in the birth of a deformed child); Blake v. Cruz, 698 P.2d 315, 317 (Ida. 1984) (involving a lawsuit against a physician for negligent failure to diagnose rubella); Siemieniec v. Lutheran Gen. Hosp., 512 N.E.2d 691 (Ill. 1987) (involving a case of a child who was born with hemophilia); Berman v. Allan, 404 A.2d 8, 15 (IId. 1979) (involving a lawsuit for wrongful birth when their child was born congenitally defective); Becker v. Schwartz & Park v. Chessin, 413 N.Y.S.2d 895, 895 (N.Y. App. Div. 1978) (involving a wrongful life lawsuit alleging the physician failed to inform the parents of the risks of the pregnancy); Jacobs v. Theimer, 519 S.W.2d 846 (Tex. 1975) (involving a case where a child was born physically impaired because his mother contracted rubella); Dumer v. St. Michael's Hosp., 233 N.W.2d 372, 372 (Wis. 1975) (involving wrongful life caused by rubella).
283. The most recent decision we are aware of is Gallagher v. Duke Univ., 852 F.2d 773 (4th Cir. 1988).
284. See, e.g., Etkind v. Suarez, 519 S.E.2d 210 (Ga. 1999) (holding that Georgia does not recognize wrongful birth claims); Campbell v. United States, 962 F.2d 1579 (11th Cir. 1992) (recognizing that Georgia does not recognize wrongful birth claims).
285. See, e.g., MINN. STAT. § 145.424(2) (2005) (stating that in Minnesota, “no person shall maintain a cause of action or receive an award on the claim that but for the negligent conduct of another, a child would have been aborted.”).
286. See ME. REV. STATE. ANN. tit. 24, § 2931 (West 1997) (stating that damages are limited in the birth of an unhealthy child).
Even where wrongful birth exists, a highly pragmatic consideration exists when it comes to assessing damage because "[j]uries would have an extremely difficult time trying to calculate how much the life of a disabled child is worth." 287

If it is difficult for a jury to calculate damages to parents based on birth of a disabled child, it is even more difficult to calculate damages to parents for the birth of a healthy child. Finally, this type of claim seeks damages for birth and subsequent child rearing expenses. Such damages are seldom awarded. 288 Claimants likely cannot succeed in lost materials cases because, regardless of which scenario their claim falls under, they cannot satisfy the requisite elements. 289

b. Defective Embryos and Wrongful Life

Defective reproductive materials can cause children born with defects. 290 The questions addressed in this subsection are whether the parents, and/or the child, can recover damages for such an existence.

i. Traditional Negligence

The elements of duty and breach raise the same concerns previously discussed; 291 because specific legal duties are largely uncertain, resulting breach is difficult to prove.

287. See Monique Ann-Marie Croon, Note, Taylor v. Kurapati: The Court of Appeals of Michigan’s Decision of Refusing to Recognize the Tort of Wrongful Birth, 5 DEPAUL J. HEALTH CARE L. 317, 339 (2002); but see Grubbs v. Barboursville Family Health Ctr. 120 S.W.3d 682, 689 (Ky. 2003) ("[S]uccessful plaintiffs in wrongful birth actions have received various types of damages ranging from the expenses resulting from the impairment but not the normal costs of raising the child, to the entire cost of raising the child with no reduction for the cost of raising a healthy child, to only the parents' own suffering and mental anguish resulting from the child's birth but not the expense of raising the child.") That case did not cite other decisions in support of this contention. See Jacobs v. Theimer, 519 S.W.2d 846, 849 (Tx. 1975) (asserting that suits seeking recovery of damages due solely to the existence of life have not been met favorably by courts).

288. See, e.g., Johnson v. Univ. Hosp., 540 N.E.2d 1370, 1376 (Ohio 1989) ("Another rationale is that the cost of child-rearing would be too speculative to measure with any certainty.").

289. There is a third possible scenario under this subsection and it combines the two lost materials scenarios discussed. Material could be lost and delivered to an incorrect recipient, who then uses it to conceive a child who is impaired. We could not find any record of this occurring, and we have no sense of how common this scenario might be, but we have to assume it could happen. If it did occur, it would suffer the same fate as the other lost materials scenarios and for many of the same reason. First, any legal duty is uncertain. Second, that uncertainty makes proving breach difficult or impossible. Third, proximate causation may be extremely difficult to establish because birth defects may be caused by many sources. Finally, it is extremely difficult for juries to value the harm created by the birth of an impaired child.

290. McIntyre, supra note 279, at 521.

Perhaps more significantly, proximate causation is problematic. Pursuant to that element, a claimant must prove, by a preponderance of the evidence, there is a direct causal link between the materials provided and the resulting condition.\textsuperscript{292} Such a tie is extremely difficult to establish because “the majority of genetic and nongenetic birth defects occur as the result of spontaneous mutations such that causation cannot be attributed to either biological parent.”\textsuperscript{293} If the claimant can establish causation, damages for harm should be much more readily available than in a lost materials case and should encompass “economic damages of raising [a] disabled child over and above the ordinary child-bearing expenses.”\textsuperscript{294} Additionally, depending on the conduct of the defendant, compensatory damages could provide the basis for punitive damages in defective materials cases.\textsuperscript{295} However, much like lost embryo cases, claimants asserting this cause of action are unlikely to succeed due to their inability to satisfy the elements. It does not appear that embryo donors or suppliers currently have much to fear from this claim.\textsuperscript{296}

\textit{c. Wrongful Life Claims}

Wrongful Life is a specific claim under the general umbrella of negligence. It is made by, or on behalf of, an impaired child asserting that the he or she would have been spared impaired existence, either through parental choice not to conceive or through an abortion, were it not for the negligence of a defendant.\textsuperscript{297}

\begin{flushright}
fertility doctors and clinics have a duty of care running to the class of intended offspring.
\end{flushright}

\textsuperscript{292} Reich & Swink, \textit{supra} note 257, at 62.

\textsuperscript{293} McIntyre, \textit{supra} note 279, at 537.

\textsuperscript{294} Schirmer \textit{v. Mt. Auburn Obstetrics & Gynecological Ass'n.}, 802 N.E.2d 723 (Ohio Ct. App. 2003).

\textsuperscript{295} \textit{See, e.g.}, Paretta \textit{v. Med. Offices for Human Reprod.}, 760 N.Y.S.2d 639 (N.Y. App. Div. 2003) (stating that punitive damages may be awarded). However, punitive damage recovery may not be possible is some jurisdictions, especially if embryo suppliers are treated as some sperm banks have been. \textit{See} Kenneth Ofgang, \textit{Sperm Bank Protected as "Health Care Provider," Court Rules}, \textit{METROPOLITAN NEWS CO.}, Sept. 3, 2002, at 1 ("A sperm bank is a 'health care provider,' entitled to special statutory protection from punitive damage claims.").

\textsuperscript{296} It is also possible that the holding facility could assert a “state of the art” defense, admitting it had a duty to act reasonably and did so, but alleging that medical technology existing at the time of the donation and transfer was not sufficient to reveal any pre-existing defect in the reproductive material. \textit{See} McIntyre, \textit{supra} note 279, at 544. ("The state-of-the-art defense is properly invoked only if there was no technologically feasible way of discovering the defect in the [material]. In these particular cases, the state-of-the-art defense acts as an absolute bar to negligence."). The viability of this defense then depends on the type of defect and the technology available at the time of donation and transfer. \textit{Id.}

\textsuperscript{297} Dawe, \textit{supra} note 278, at 475.
Wrongful life has the same elements previously discussed under negligence; duty breach, proximate causation and harm. The first three elements continue to suffer the same deficiencies. The legal duties are uncertain, making breach difficult to prove, and proximate causation remains difficult to establish. Only three states currently recognize a cause of action for wrongful life and several refused to do so, either by statute or common law. This lack of acceptance is, at least partially, a product of the courts’ inability to address the legal issue of harm, separate from a moral or societal issue:

In wrongful life claims...the child usually asserts as “general” damages the pain and suffering he will endure during his lifetime as a result of the defect, but presumably less the benefits he will derive from his existence, if any. This “net burden” is then measured not against the value of a “normal” life, but against the nullity of nonexistence.

The response has been that:

Courts have consistently refused to recognize claims for wrongful life because of the deep-seated ethical dilemma.

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298. See Huddleston v. Infertility Ctr. of Am., Inc., 700 A.2d 453, 460 (Pa. Super. Ct. 1997) (holding that a surrogacy business had a special relationship with the parties and, therefore, owed a duty to protect the resulting child from foreseeable risks).

299. But see Dawes, supra note 278, at 477 (“With few exceptions modern courts have had little trouble accepting the elements of duty and breach in wrongful life cases.”). However, the author cites only one case in support of this contention. See Albala v. City of New York, 445 N.Y.S.2d 108 (1981) (holding that the action fails to lie in favor of the child for the injuries suffered as a result of the preconception tort committed against the mother).


involved. Few courts have been willing to say that children, no matter how severely impaired, would have better off had they never been born. “One of the most deeply held beliefs in our society is that life—whether experienced with or without major physical handicap—is more precious than non-life.”

Courts have held “...that life itself cannot constitute injury.” As a result the harm element cannot be satisfied when there is a birth, even the birth of an impaired child. In the unlikely event that a wrongful life cause of action is recognized, a claimant will find it very difficult to establish any of the first three elements, and the fourth may be judicially impossible for the parent(s) or the child.

4. Embryo Disposal – the Liability Mystery

We discussed specific causes of action that may make embryo donors or suppliers liable above, but we would be remiss if we did not also address potential liability for embryo storage facilities intentionally destroying embryos. The challenge is that we cannot identify one primary cause of action likely at issue because liability would depend on the legal status of embryos. What we do believe is that there are more than 500,000 embryos currently in cryopreservation. Those embryos belong to the

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304. See, e.g., Becker v. Schwartz, 386 N.E.2d 807, 812 (“[W]hether it is better never to have been born at all than to have been born with even gross deficiencies is a mystery more properly to be left to the philosophers and the theologians.”).

305. See McIntyre, supra note 279, at 539 (quoting Berman v. Allan, 404 A.2d 8, 12 (N.J. 1979)).


307. See, e.g., Gleitman v. Cosgrove, 227 A.2d 689, 693 (N.J. 1967) (“A considerable problem is raised by the claim of injury to the parents. In order to determine their compensatory damages a court would have to evaluate the denial to them of the intangible, unmeasurable, and complex human benefits of motherhood and fatherhood and weigh these against the alleged emotional and money injuries. Such a proposed weighing is similar to that which we have found impossible to perform for the infant plaintiff. When the parents say their child should not have been born, they make it impossible for a court to measure their damages in being the mother and father of a defective child. Though we sympathize with the unfortunate situation in which these parents find themselves, we firmly believe the right of their child to live is greater than and precludes their right not to endure emotional and financial injury.”).

308. Id. at 692 (“The infant would have us measure the difference between his life with defects against the utter void of nonexistence, but it is impossible to make such determination.”).

309. See Mundy, supra note 48 (estimating that there are approximately a half of a million embryos in storage).

310. See LA. REV. STAT. ANN. § 9:126 (West 2008) (describing that the fertilized ovum is not the property of the doctor who conducted the fertilization or the facility, but rather the property of the invitro fertilization patient or other guardian appointed if the invitro fertilization patient cannot be located).
prospective parents, at least until certain contractual events do or do not occur\textsuperscript{311} and many of those prospective parents eventually place the holding facility in a position where it has the legal right to dispose of the embryos.\textsuperscript{312} While many of these facilities would like to do so,\textsuperscript{313} they are very afraid of litigation.\textsuperscript{314} They might gain guidance from a very small pool of decisions holding that embryo disposition is usually dictated by contract.\textsuperscript{315} However, not all courts hold such agreements enforceable and

\textsuperscript{311} See Fontini Antonia Skouvakis, Comment, \textit{Defining the Undefined: Using a Best Interests Approach to Decide the Fate of Cryopreserved Preembryos in Pennsylvania}, 109 PENN. ST. L. REV. 885, 902 (2005) (stating that the author spoke to twenty infertility clinics posing as a potential customer with all of the clinics claiming they utilized “informed consent” forms identifying how pre-embryos would be disposed of). \textit{But see} Mundy, supra note 48 (nothing that doctors, while commonly contractually empowered to dispose of embryos in events such as patient divorce, disappearance, or failure to make payment, do not dispose out of fear of unknown litigation).

Interestingly such agreements may restrict the recipient’s disposition options as well. \textit{See id.} For an interesting hypothetical scenario, see Jonathan Penn, Note, \textit{A Different Kind of Life Estate: The Laws, Rights, and Liabilities Associated with Donated Embryos}, 21 REGENT U.L. REV. 207, 208 (2008–2009) (stating that the scenario involves a contract specifying that “notwithstanding the foregoing, the Intended Parents...shall not donate, see, or otherwise transfer any donated ova, pre-embryos, or embryos that result from the Procedure to another person or couple (other than a gestational surrogate working with the Intended Parents) for the purpose of conception”).

\textsuperscript{312} See Mundy, supra note 48 (“The way this happens is: When patients agree to have embryos frozen, they sign forms stating what should be done with the embryos should the patients divorce, disappear, or stop paying storage fees. After treatment has concluded, many patients eventually do stop paying, disappear, move [and] leave no forwarding address.”). Many embryo owners cannot be located, period. \textit{Id.}

\textsuperscript{313} \textit{See id.} (“People do not want to inherit embryos.”). This article further states:

\begin{quote}
And the risk of holding them is considerable. “I have tons of embryos, and I can’t track down the owners,” said one Los Angeles doctor, Vicken Sahakian of the Pacific Fertility Center... “It’s one of the main problems I have. I have thousands of embryos from patients who have been through this program for, what, 10–, 12–plus years, changing addresses, and never called back, never paid storage fees—you can’t track them down... His “biggest nightmare,” he said, is that he will be unable to sell his practice when he is ready to retire, because no doctor will want to buy a practice that comes with a closetful of unclaimed embryos and the vague, terrible responsibility they entail. “The person buying it does not want to buy the embryos. That’s the rule,” he said. “People do not want to inherit embryos. So what do you do with them? I have embryos that have been here since 1992.”
\end{quote}

\textit{Id.}

\textsuperscript{314} \textit{See id.} (“‘Nobody does it [destroys abandoned embryos],’ says Alan DeCherney, the editor of Fertility and Sterility and a reproductive endocrinologist who is now at the National Institute of Health. ‘It’s a hot topic. People think the risk of holding them is less than the risk of destroying them.’”).

almost all of the existing cases arose out of disputes that addressed some aspect of potentially unwanted familial relationships. Only one case is possibly on point in terms of the independent disposition by a holding facility with no inter-related “custody” issues, New York-Del Zio v. Presbyterian Hospital.

In New York-Del Zio, the Del Zios underwent in vitro fertilization using Mr. Del Zio’s sperm and Mrs. Del Zio’s egg. The co-mingled materials were placed in an incubator. A supervisor learned of the embryo, felt it was his ethical duty to destroy it, consulted hospital officials, and did destroy it. The Del Zios brought suit for intentional infliction of emotional distress and wrongful conversion. The jury returned a verdict for the Del Zios on the intentional infliction claim, but for the hospital on the wrongful conversion cause of action. We glean two things from New York-Del Zio. First, a holding facility disposing of an embryo, without contractual right, can be liable to the prospective parents in tort. Second, if the embryo is viewed as other than property, the facility is not liable under wrongful conversion, as conversion is predicated on wrongful possession of property. This is extremely interesting because, if embryos are not property, some disposal would open the door for wrongful death claims, but one court found that it unlikely a defendant could be held responsible


317. 1978 U.S. Dist. LEXIS 14450, at *16 (noting that the jury could have found the defendant’s guilty under the conversion claim).

318. Id. at *2.

319. Id. at *2–*3.

320. Id. at *3.

321. Id. at *1.

322. Id. at *11.

323. See Penn, supra note 311, at 213 (Presumably, the jury in the Del Zio case found for the Del Zios on the emotional distress claim because they viewed the embryo as the only opportunity for the Del Zios to become pregnant and hopefully give birth to a child. Viewing the embryo as the potential for human life is also consistent with the jury’s finding for the defendants on the wrongful conversion claim, a claim where it must be proven that “one who, without authority, intentionally exercised control over the property of another and thereby interfered with the other’s right of possession . . . .” Presumably, the jury considered the embryo to be human life or the potential for human life, rather than property. Therefore, the jury denied the Del Zios’ property claim of wrongful conversion.

324. For purposes of this article “wrongful death” is defined as “[t]he taking of the life of an individual resulting from the willful or negligent act of another person or persons.” WEST’S ENCYCLOPEDIA OF AMERICAN LAW, available at http://www.answers.com/topic/wrongful-death-claim (last visited Mar. 11, 2011); See also BLACK’S LAW DICTIONARY 1752 (9th ed. 2009)(defining wrongful death action as “[a] lawsuit brought on behalf of a decedent’s survivors for their damages resulting from a tortious injury that caused the decedent’s death).
for the wrongful death of a human embryo because the claim would be too speculative, while another found that the state Wrongful Death Act was not applicable to situations where the embryo was destroyed pre-implantation. On the other hand, if embryos are property, it seems only logical that facilities disposing of them, in violation of an existing contract, could face liability from conversion claims, and possibly other causes of action such as trespass to chattels.

**B. The Surrogacy Trade**

"In the absence of statutory law positively governing our decision, we must innovate."  

1. Negligence

The well-established elements of negligence are duty, breach, proximate causation, and damage or injury. As we discuss next, in a surrogacy arrangement the surrogate providers, and the surrogate herself, may face negligence liability. The surrogate provider may be liable for

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326. See Miller v. American Infertility Group, 897 N.E.2d 837, 844–45 (2008) (finding that the Wrongful Death Act had never been applied to in vitro fertilization situations or the cryopreservation of embryos and thus cannot be applied to situations resulting from the embryo destruction because of in vitro fertilization). The case, in dicta, left open the issue of applicability post-implantation. Id. at 846.

327. While the specific elements of torts vary by jurisdiction, a common definition of “conversion” is “[t]he unlawful turning or applying the personal goods of another to the use of the taker, or of some other person than the owner; or the unlawful destroying or altering their nature.” Legal Definition of Conversion, THE LECTRIC LAW LIBRARY, http://www.lectlaw.com/def/c309.htm (last visited Mar. 11, 2011); See also BLACK’S LAW DICTIONARY 381 (9th ed. 2009) (defining conversion as “[t]he act of changing from one form to another; the process of being exchanged).

328. See Luize E. Zubrow, Rethinking Article 9 Remedies: Economic and Fiduciary Perspectives, 42 UCLA L. REV. 445, 522–23 n. 307 (1994) (“The early common law distinguished between trespass to chattel, a lesser form of conversion involving negligent interference with the property of others, and conversion, an intentional exercise of dominion or control which seriously interferes with the right of another to control the property.”). See also RESTATEMENT (SECOND) OF TORTS §§ 217 cmt. b, 222 cmt. a & 222(A) (1965).

329. While discussion of the employment relationship between surrogates and surrogate providers is beyond the scope of this article, we do note that potential provider liability for surrogate actions or inaction could differ depending on whether surrogates are employed as employees or independent contractors. See, e.g., Barbara A. Noah, The Managed Care Dilemma: Can Theories of Tort Liability Adapt to the Realities of Cost Containment?, 48 MERCER L. REV. 1219, 1237 (1996–1997) (noting that the doctrine of respondent superior depends on existence of employer–employee, or closely analogous, relationship and generally does not apply to acts of independent contractor).


failing to screen materials used or the prospective parties. The surrogate may be liable for care taken of the embryo while in her possession, as the relationship between her and the prospective parent(s) may be a bailment.

a. Screening

Tissues potentially involved in surrogacy include sperm, eggs, and embryos. While there are no cases on point regarding eggs and embryos, there is a sperm case that may provide insight regarding potential surrogate provider liability.\textsuperscript{332} \textit{Stiver v. Parker}\textsuperscript{333} addressed the situation where the surrogate (Stiver) was artificially inseminated with the untested sperm of the prospective father (Malahoff).\textsuperscript{334} The resulting child suffered from cytomegalic inclusion disease ("CID"), transmitted through his father’s sperm.\textsuperscript{335} The child’s CID symptoms included hearing loss, mental retardation, and severe neuro-muscular disorders.\textsuperscript{336} The surrogate, and her husband, brought suit under a negligence claim against the clinic.\textsuperscript{337} The trial court granted summary judgment, finding that the broker in a surrogacy arrangement had no legal duty.\textsuperscript{338} The court of appeals reversed\textsuperscript{339} holding:

We conclude that... the surrogacy business designer and broker and other defendant professionals who profited from the program, owed affirmative duties to the Stivers and to Malahoff, the surrogacy program beneficiaries. This duty, an affirmative duty of protection, marked by heightened diligence, arises out of a special relationship because the defendants engaged in the surrogacy business and expected to profit thereby.\textsuperscript{340} Our view is that surrogate arrangements for the transfer of babies present significant dangers for society and therefore require careful regulation and control through the development of the common law of

\textsuperscript{332} The analogy is appropriate as sperm and embryos are both reproductive tissues. See \textit{supra} note 123 and accompanying text.
\textsuperscript{333} 975 F.2d 261 (6th Cir. 1993).
\textsuperscript{334} \textit{Id.} at 263.
\textsuperscript{335} \textit{Id.}
\textsuperscript{336} \textit{Id.} Interestingly, it was later learned that the surrogate was already pregnant when inseminated. \textit{Id.} The father of the resulting child was, in fact, the surrogate’s husband and not the clinic’s client. \textit{Id.}.
\textsuperscript{337} \textit{Id.} at 264.
\textsuperscript{338} \textit{Id.}
\textsuperscript{339} See \textit{id.} ("We conclude under the Michigan law of negligence that the defendants owed an affirmative duty to act to protect the plaintiffs against harm, a duty that may have been breached.").
\textsuperscript{340} \textit{Id.} at 268.
negligence... [t]his strong state interest justifies regulation... in new areas of “baby transfer” made possible by technology.\textsuperscript{341}

While \textit{Stiver} was not mandatory authority, a later case adopted its “special relationship” basis for establishing a legal duty in surrogacy arrangements. In \textit{Huddleston v. Infertility Center of America}\textsuperscript{342} the child of a traditional surrogate died after suffering serious abuse by his father.\textsuperscript{343} The surrogate (Huddleston) brought a variety of claims, including negligence, against the infertility clinic contracting her services.\textsuperscript{344} The court first distilled the issue; “Is there a duty owed by a surrogacy clinic to the participants of a program which is specifically designed to create a child outside the boundaries of the traditional nuclear family setting?”\textsuperscript{345} It then concluded, much like \textit{Stiver}, that:

[A] business operating for the sole purpose of organizing and supervising the very delicate process of creating a child, which reaps handsome profits from such endeavor, must be held accountable for the foreseeable risks of the surrogacy undertaking because a “special relationship” exists between the surrogacy business, its client-participants, and, most especially, the child which the surrogacy undertaking creates. Such a special relationship existed between ICA, Appellant and Jonathan in this case and thus, ICA owed them an affirmative duty of protection.\textsuperscript{346}

That “protection” meant that the surrogate provider had the duty to screen prospective parents. It is also clear from the court’s discussion that providers had the duty to screen prospective surrogates as well.\textsuperscript{347} The above cases identify duties that could be breached and provide facts that could allow proximate causation determination. However the damage element may again be difficult to meet in jurisdictions requiring physical injury.\textsuperscript{348} If embryos are “people”, there could be requisite physical

\begin{itemize}
  \item \textsuperscript{341} \textit{Id.} at 269.
  \item \textsuperscript{342} 700 A.2d 453 (Pa. Super. Ct. 1997).
  \item \textsuperscript{343} \textit{Id.} at 455–56.
  \item \textsuperscript{344} \textit{Id.} at 456.
  \item \textsuperscript{345} \textit{Id.} at 457.
  \item \textsuperscript{346} \textit{Id.} at 460.
  \item \textsuperscript{347} See \textit{id.} (failing to reach a conclusion on that issue but noting that other jurisdictions required parties to prospective surrogacy agreements to undergo psychological testing); Mercer, supra note 29, at 80 (“Since there may be potential liability to clinics and agencies involved with embryo transfer...it would be in the clinic or agency’s best interest to perform background checks on recipient couples in order to reduce potential liability.”).
  \item \textsuperscript{348} See supra note 273 and accompanying text.
\end{itemize}
If, on the other hand, embryos are property, liability assessment may be assessed under the traditional concept of "bailment."

2. Bailment

A bailment is "[a] delivery of personal property by one person (the bailor) to another (the bailee) who holds the property for a certain purpose, . . . [usually] under an express or implied-in-fact contract." There are three types of bailments: (1) for mutual benefit to the bailor and bailee; (2) for the sole benefit of the bailor; and (3) for the sole benefit of the bailee. When embryos are property, surrogacy is legally a mutual bailment. In a mutual bailment the bailee must take reasonable care of the bailed property. A bailee who fails to do so may be held liable for any damages incurred from his or her negligence. While the contention that surrogacy is a bailment will be unconscionable to those against commodification of human reproductive tissue, at least one court has applied bailment law when deciding ownership rights of an embryo. That court was correct. Bailment provides the proper liability analysis where embryos do not have some sort of heightened legal status because, in those jurisdictions, embryos are property.

349. See, e.g., Smith v. Brennan, 157 A.2d 497, 500, 503 (N.J. 1960) (noting that some jurisdictions also recognize prenatal torts without specifically finding that an unborn child is a "person in being").
350. BLACK'S LAW DICTIONARY 163 (9th ed. 2009).
352. Id. at § 53:5.
353. Id.
354. See supra note 222. One author believes this discussion is much less heated than in the past. See Elizabeth Scott, Surrogacy and the Politics of Commodification, 72 LAW & CONTEMP. PROBS. 109, 121 (2009) ("Today the issue is seldom framed as baby selling and exploitation; instead the discourse emphasizes the service provided by surrogates to couples who otherwise could not have genetically related children."). However, it is difficult to imagine a dearth of heated opinions should a surrogate seek to exercise a "lien" over a resulting child in order to enforce payment and it appears some surrogacy agreements anticipate just such situation. See Indian Surrogacy Law Centre, Surrogacy Agreement, http://indiansurrogacylaw.com/surrogacy-agreement.html (last visited Mar. 16, 2011) (listing "[c]hild no lien for dispute over the compensation" under a "checklist for every surrogacy agreement"). While seeking to enforce such a lien would, undoubtedly, create an emotional fervor, the legal issue is clearly addressed under the 13th Amendment to the United States Constitution. See U.S. Const. amend. XIII, § 1 ("Neither slavery nor involuntary servitude . . . shall exist within the United States. . . ."). No such lien would be enforceable. Id.
3. Breach of Contract

This potential cause of action may correlate with aspects of negligence assessment. The first element of negligence is duty. The existence of that element is well established, but its definition is always subjective as it is predicated upon the "reasonable person" standard.\(^{356}\) Clarification of a surrogate's duties may come from a surrogacy contract.\(^{357}\) Breach of any such duty would then not only satisfy the first two elements of negligence, but also trigger breach of contract. Surrogates should face liability when failing to do what that agreement requires,\(^{358}\) while surrogate providers should face liability when failing to meet contractual duties to surrogates or prospective parents.\(^{359}\) This cause of action is viable, but determination of controlling law may be difficult\(^{360}\) and breach of contract may be impossible in jurisdiction invalidating any form of surrogacy agreement.

VII. LOOKING AHEAD

The increasingly symbiotic relationship between ART and the Internet fundamentally changes how human procreation can be facilitated. Much is uncertain in the Cyberprocreation Era, but issues regarding embryo donation and/or surrogacy will be significant on many levels, and likely manifest quickly. Accordingly we offer the following predictions and recommendations:

1. Prediction – a group, or groups, will call for an absolute ban on embryo donation and/or commercial surrogacy worldwide.

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\(^{357}\) See Stiver v. Parker, 975 F.2d 261, 272 (6th Cir. 1992) (quoting Clark v. Dalman, 150 N.W.2d 755, 760 (1967)) ("Although affirmative duties in negligence law are imposed 'by operation of law,' a contract frequently operates in the background and the specific obligations 'may and frequently do[] arise out of a contractual relationship.'").

\(^{358}\) Agreements may require the to-be surrogate promise to refrain from activities such as smoking tobacco, drinking alcohol, or taking other drugs. Golnar Modjtahedi, *Nobody's Child: Enforcing Surrogacy Contracts*, 20 WHITTIER L. REV. 243, 249 (1998); see also INFORMATION ON SURROGACY, *Common Sense Clauses for the Best Surrogacy*, http://www.information-on-surrogacy.com/best-surrogacy.html (last visited Mar. 16, 2011) (suggesting that drafters include anti-smoking and drinking clauses in surrogacy contracts).

\(^{359}\) See supra notes 222–42 and accompanying text (discussing contractual liability in surrogacy agreements under the UCC).

\(^{360}\) See Baiman, * supra* note 121, at 135 ("[I]s the applicable state law the law of the home state of the genetic parents, the law of the state in which the embryos were created, or the law of the state where the recipient party lives?"). One could go further and add the law of the state where the embryos are currently located and the law of the state where the contract was created to this list.
Recommendation – it is unlikely that such restriction would be adopted globally due to political volatility and economic necessity. Such a ban would really create fewer good and service providers, likely with even less regulation. We do not recommend this ban.

2. Prediction – there will be a call for the United States to ban embryo donation and/or commercial surrogacy.

Recommendation – we cannot endorse this proposal, as it would likely result in fewer providers with less regulation. We do recommend that Congress use its interstate commerce power to regulate collection, storage, and screening of human embryos. While some authors favor “double decker” ART regulation, meaning directives at both the federal and state levels, we recommend any other embryo, and all surrogacy regulation, only at the state level. We do so for two reasons. First, state courts decide family law issues. Second, as detailed in the case law, and

361. See Morris, supra note 94, at 704–05 (discussing Italy’s extreme shift from one of the least ART regulated countries to one that now prohibits egg donorship for ART). The article also stated that “[t]his problem will only be inflamed as countries continue to change their laws, which are becoming increasingly divergent from one another.” Id. at 708.

362. Market demands may sway countries to defy international agreements in pursuit of RT dollars. See Id. at 707–08. Additionally, clinics are sourcing reproductive materials from poorer countries. See Buying Babies, Bit By Bit; Assisted Conception, THE ECONOMIST, Dec. 23, 2006 at 117–118.

363. See Cortez, supra note 81, at 104 (“As medical tourism becomes more lucrative, countries may compete by offering treatments that other countries do not offer. Poor countries may be tempted to offer treatments that are illegal or highly experimental elsewhere.”).

364. See, e.g., Ann Bindu Thomas, Avoiding Embryos “R” Us: Toward A Regulated Fertility Industry, 27 WASH. U. J.L. & Pol’y 247, 271 (2006) (advocating for three components of such regulation: “(1) embryos should not be bought or sold in a monetary exchange, (2) donors’ decisions should be fully informed and truly voluntary, and (3) embryo procurement organizations should be non-profit and conform to standards similar to [the National Organ Transplant Act]”).

365. But see Debra Spar, Reproductive Tourism and the Regulatory Map, 352 NEW ENG. J. MED. 531, 533 (2005) (“Americans, with their distrust of bureaucratic authority, would never condone the extension of federal power into the intimate affairs of reproduction.”); Alicia Ouellette et al., Lessons From Across the Pond: Assisted Reproductive Technology in the United Kingdom and the United States, 31 AM. J. L. & MED. 419, 433 (2005) (arguing that federal regulation of ART is problematic). These perspectives may or may not be prescient, but the sale of some body parts is already federally regulated. See 42 U.S.C. § 274e(a) (2006) (“It shall be unlawful for any person to knowingly acquire, receive, or otherwise transfer any human organ for valuable consideration for use in human transplantation if the transfer affects interstate commerce.”).


367. This would also be in accord with the most current version of the UPA. See UNIF. PARENTAGE ACT, supra note 109, at § 802 cmt. (2002) (“[T]he core sections of this article provide for state involvement, through judicial oversight, of the gestational agreement before, during, and after the assisted reproductive processes.”).

368. See Helene S. Shapo, Assisted Reproduction and the Law: Disharmony on a Divisive Social Issue, 100 N.W. U. L. REV. 465, 466 (2006) (“[D]omestic relations law is generally reserved for the states.”). However, the author goes on to recognize, with regard to ART issues, “a
demonstrated statutorily, the states may have very different public policies regarding embryos and surrogacy. We understand this recommendation will create a lack of uniformity, and that some will attempt to exploit lax or nonexistent state laws, but it appropriately respects the divergent interests of the individual states.

3. Prediction – there will be an increasing market for designer embryos, likely a significant one, despite inevitable controversy. This market will be fueled by customers seeking a cheaper and more effective alternative to IVF and fed by suppliers providing embryos created outside the human body. Individual suppliers will attempt to stand out in that market by implying, but not outright promising, that resulting children will have, or not have, certain characteristics.

Recommendation – we cannot speak to the non-domestic markets as there is too much uncertain or unknown in terms of policy or priority, but United States embryo suppliers, supplying to American clients, should pay close attention to what has happened and what that portends for the future. The technological advances that may make market participation attractive will also present increasing liability under causes of action for strict product liability and breach of warranty of fitness for a particular purpose. While

fractioned, state–by–state approach to the subject has arisen.” Id. Another author would likely contend those differences are acceptable, and the key is that parties considering surrogacy arrangements have clear statutory directive so that they can make informed decision. See Baiman, supra note 121, at 135 (“Without a clear statutory scope, parties and courts will remain in the dark as to which state law applies in a dispute.”).

369. See supra notes 189–211 and accompanying text.

370. See supra notes 130–62 and accompanying text.

371. It seems a safe assumption that this is one of the reasons so few states adopted UPA 2002 and none without changes. See supra notes 139–62 and accompanying text. There was another uniform law proposed as well. UNIF. STATUS OF CHILDREN OF ASSISTED CONCEPTION ACT (1988). http://www.law.upenn.edu/bll/archives/ulc/fnact99/uscaca88.htm. We find no record of any state adopting this Act.

372. See Hugh McLachlan and J. Kim Swales, Commercial Surrogate Motherhood and the Alleged Commodification of Children: A Defense of Legally Enforceable Contracts, 72 LAW & CONTEMP. PROBS. 91, 92 (2009) (“In federations like the United States or the European Union, the unevenness of legal restriction or regulation by individual states or countries compounds the problem.”); but see Buzzanca v. Buzzanca, 72 Cal. Rptr. 2d. 280, 293 (Ct. App. 1998) (“[E]ven though [that] might not be perfect on a case–by–case basis, [it] would bring some predictability to those who seek to make use of artificial reproductive techniques.”).

373. In fact, that is precisely what attorney Noel Keane did. Frustrated that his home state of Michigan treated compensation to surrogates as illegal, he sent couples to Kentucky where there was no such restriction. See Spivak, supra note 154, at 98. Keane would become known as the “father of surrogate motherhood.” Id.

374. It is unlikely that prospective parents will be able to find true embryo donors. At least one study demonstrates that parents of preserved embryos cannot make a donation or “disposition decision”. See Mundy, supra note 48, at 5. “The average embryo had been in storage for four years. Even after that much time had elapsed, 72 % had not decided what to do, and a number echoed the words of one patient: ‘We can’t talk about it.’” Id.
these are “unheard of” now, they likely will become quite strident in the not too distant future.

4. Prediction – states will struggle with the legal status of embryos and this will impact disposal of stored embryos and potential surrogate liability.

Recommendation – states not concluding that embryos have some “additional” rights, or otherwise regulating surrogacy arrangements, should apply bailment analysis as embryos are property. States statutorily defining embryos as “people” must address disposal and surrogate liability under wrongful death causes of action. States that have elevated embryo status, either at common law or by statute, should follow a case-by-case analysis similar to Davis v. Davis,375 with the understanding that a) Davis was decided on different grounds;376 b) at a point in time before dramatic ART use growth commenced;377 and c) these are potentially highly volatile issues.378 States that have fetal homicide statutes, or otherwise at least tacitly treat embryos as more than property, should adopt case-by-case analysis as well.

5. Prediction – prospective parties will continue to develop and rely on surrogacy contracts.

Recommendation – would-be parties must be aware of the laws and public policies of the jurisdictions that may interpret their agreements.379 If

375. 842 S.W.2d 588, 604 (Tenn. 1992).
376. Id. (“Ordinarily, the party wishing to avoid procreation should prevail, assuming that the other party has a reasonable possibility of achieving parenthood by means other than the use of the [embryos] in question.”).
377. So, potentially, there could be a lot of case–by–case analysis going forward. This may prove unwieldy to courts seeking efficiency and clear precedent.
378. See supra note 222. On a related note, these are exactly the types of legal issues, ones with potentially polarizing moral underpinnings, that could be potentially problematic for judges, particularly elected judges engaging in case–by–case analysis. For example, all three Iowa Supreme Court Justices failed to withstand retention vote after the Court unanimously upheld a pro–gay marriage ruling in the prior term. It was the first time any Justice had been removed since 1962. Adam Cohen, Iowa Vote Shows the Injustice of Electing Judges, TIME, Nov. 10, 2010, http://www.time.com/time/nation/article/0,8599,2030526,00.html. This type of movement may just be getting started and elected Judges may lose office due to “unpopular” decisions. See Michael J. Crumb & Nomaan Merchant, Ouster of Iowa Judges May Inspire Activists Rights Groups, Legal Experts Fear Loss of Impartial, Free Judiciary, Hous. Chron., Nov. 7, 2010, at A32 (discussing further potential activism in this area).
379. In one instance, a New York male contracted with a Minnesota female for surrogacy services. P.G.M. v. J.M.A., 2007 Min. App. LEXIS 1189, *2 (Minn. Ct. App. 2007). The couple executed a written gestational surrogacy agreement “(GSA)” that specified the agreement was governed by Illinois law. Id. at *3. The IVF and implantation procedures took place at an Illinois clinic. Id. at *4–*5. The Minnesota court applied Illinois law. Id. at *6. While this holding is straight–forward, this case should not be read too broadly. The court reasoned that “Minnesota courts ‘traditionally enforce[] parties’ contractual law provisions.’” Id. at *7. However, the court also noted that “Minnesota courts will not enforce an otherwise validly executed contract that contravenes public policy. Contracts violate public policy when they injure some established societal interest.” Id. at *15 (citations omitted). The decision came down to the fact that there was
not, they may be unpleasantly surprised to learn that a) the contract is not enforceable; b) the surrogate may have parental rights; c) the surrogate may have parental responsibilities; and even d) parties may face criminal charges for pursuing services abroad that are illegal domestically.380 This multitude of uncertainties epitomizes the plight of embryo donors and suppliers, surrogates and surrogate providers, and prospective parents in the Cyberprocreation era. Ongoing discussion and analysis is vital because, in terms of human reproduction, the Internet generates more questions than answers.

380. See Gilles Cuniberti, Flying to California to Bypass the French Ban on Surrogacy (Nov. 5, 2007), http://conflictoflaws.net/2007/flying-to-california-to-bypass-the-french-ban-on-surrogacy/ (discussing a French couple who flew to California to use the services of an American commercial surrogate because such services are illegal in France but returned home - with twin girls - to find multiple criminal charges for their actions; the counts were dismissed, but only on pleading technicalities, and not for lack of merit).