preface to the online version of this portfolio

To demonstrate the quality of copy writing available to our clients, this sampler of previous works has been assembled. It is intended to show not only high competence in the English language, but command of style and the ability to adjust to diverse fields of writing. We can even be humorous and witty when the need arises!

This portfolio was originally produced as a sample booklet.

Specifications for the printed version:

size: 6" x 9"
soft cover: wine-coloured cover stock with mottled texture
paper: linen ivory
binding: black spiral (pages separated)
colour: Pantone 161 CVC

for Willem Hart

taught me type & design

gave me a solid start

helped my skills climb

st Art type design

contents

design writing

The following samples are copy excerpts from the panel layouts for a walk-through exhibition designed to educate a general audience about Information Design.

Since the content is a dry, educational presentation of a body of facts, in order to maintain interest, the style is light-hearted and sometimes humourous (entertaining). For example, the title for each panel must not only encapsulate the material, it must also be inviting. Through the use of humour and semantic twists, such as referring to signage as "Help on a stick", the titles are intriguing and attempt to take the intimidation out of an otherwise weighty subject.

exhibition excerpts

(from the Welcome *panel, a definition of Information Design)*

Information Design gives us knowledge in a clear, understand-able form. Its applications can be found in the signs, maps and timetables that guide us; instruction sheets that come with a new purchase; graphs and charts that condense a mass of data and tell us what it all means.

(from the panel on Wayfinding*)*

Signs: *help on a stick*
Signs guide us by telling us what this is, where this is, and provide instructions and warnings along the way.

Icons: *those clever little pictures*
Most effective when kept simple, these pictograms are almost truly worth a thousand words.

Consider this symbol: When on a door, what does it tell us?

- *It's a woman.*
- *This room is gender specific.*
- *It must be a women's washroom.*
- *If you're a man, please stay out.*

But their real power lay in their ability to transcend the language barrier by portraying the visual realities we all share.

*(from the panel on* Ordered Information*)*

We'd be lost without it

A common form of ordered information is alphabetical listing. Imagine trying to use a telephone book with the names in no par- ticular order, or arranged according to address. The format of the ordering is crucial. A bus schedule is most effective when ordered according to time and destination; then we can easily find which bus will take us there, where to get on, and when it leaves.

(from the panel on Clarity*)*

Not putting it in Perspective

The purpose of Information Design, and Graphic Design in gen- eral, is to communicate. Poor presentation of information can fail to deliver a message, a situation that led to the Challenger disaster.

The exact cause, failure of sealing o-rings on the rocket motors, occured due to low temperatures during launch. Engineers at the rocket manufacturer had predicted the failure and prepared 13 charts that were faxed to NASA the day before. However, evi- dence of previous low-temperature failure was poorly presented; the charts were unconvincing and arguments against the launch failed. Economic and political pressures then forced NASA to make a disasterous decision.
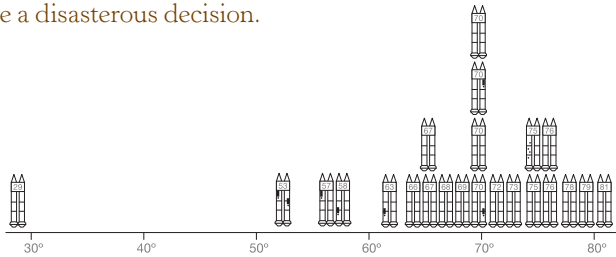
Addressing only the ordering, Edward Tufte reorganized the chart according to temperature. The marks on the sides of the rockets indicating o-ring damage gain new signifigance, becoming more frequent as the temperature descends. Even more, it now shows the relative data spacing. The rocket on the far left is the planned Chal- lenger launch—a clear vision of entering unknown territory.

(the symbol/wordmark combo developed for the exhibition and its rationale)

Information Design

A symbol that stands for the clarity of a profound human endeavour, rich in imagery. A symbol of Discovery!

Based on conceptual goals and refined with feedback from field testing, the symbol incorporates many aspects of Information Design. The image speaks of wayfinding, with an arrow that points the way; signs, the ever-present medium; floorplans that tell us, "You are here"; graphs that organize data; and finally, the face of humanity itself (middle sign) that is served through the clarity of Information Design.

Fresh, clean water has always stood for purity and clarity, and the symbol employs this visual concept, while the type invites us with richness and warmth.

The typeface, chosen for its contemporary look, relates to the symbol in the formation of the strokes, such as the lowercase "i" that reflects parts of the symbol. It's stylish and eminently readable.

academic writing

University academic papers demand perfection in grammar, punctuation and spelling, and are meant to be dry; the audience is a professor. However, *Fragile Technology* is targeted for a general audience, so the style avoids the usual pedantic tone. The language has been kept non-technical and the writing is closer to a conversational commentary than the normally unexciting, dry presentation of factual material.

Fragile Technology

Introduction

As computer-controlled systems and communication networks become increasingly sophisticated, their growing complexity engenders ever greater seeds of failure. Advances in hardware and software technologies offer greater reliability, and past experience with error has led to improved system development and management. However, due to human fallibility in design, usage and maintenance, perfection is unattainable, and reliance on malfunctioning systems continues to take its toll in interrupted communications, corrupted data, and even human lives.

Sources and opportunities for error

Hardware malfunction

The most obvious source of error would be physical equipment failure, which can be considered in the following groups:

- Inherent and accumulated defects
- Faulty installation
- Physical damage

The first group is an accepted situation; we are, as yet, unable to manufacture products with consistent perfection. Many coin collectors make a living speculating on the trade in miss-punched coinage. Aside from inevitable random glitches in a manufacturing process, other causes include aging equipment, inadequate labour (the source of that 'lemon' you're driving), even defects in the original design. Also, as equipment ages it accumulates defects through wear—tolerances widen, metal fatigues.

Faulty installation has been the leading cause of past disasters. In December 1988, in London, England, a new railway switch was installed, but a

loose wire was left dangling from an older switch. The wire came into contact with the new electromagnetic switch causing a short and a subsequent collision between two commuter trains

Accidents, natural disasters and purposeful damage, even by animals, are unavoidable events that contribute to failure. But here we are more concerned with the human tendency towards unnecessary destruction. On January 14, 1991, an AT&T crew that was removing an old cable in Newark, New Jersey accidentally severed a New York area telephone optical cable, causing the shutdown of the New York Mercantile Exchange and other commodities exchanges; disruption of air-traffic control communication over New York, Washington and Boston; and blockage of over 60 percent of long distance calling.

Another disaster that should not have happened is the explosion of the shuttle Challenger. The ultimate cause was the deterioration of sealing o-rings on the rocket engines. However, this event was the result of human failure. NASA had never before launched a shuttle when the temperature was below 60 degrees Fahrenheit. The o-rings had a design deficiency in that they disintegrated in cold conditions. The tragedy is, NASA had the information outlining this defect. The o-ring manufacturers, aware of the cold weather launch, had sent NASA data in the form of charts and graphs warning of the danger of cold weather failure. However, the graphs were so poorly designed that the true of meaning of the information was buried, and NASA, still unaware of the defect, continued with the launch. So the actual cause of the Challenger explosion was the failure of people to communicate effectively.

Software misbehaviour

Through experience we've learned that software defects (better known as 'bugs') are inevitable. There are three main areas where program logic can break down:

- Errors in the original design
- Mistakes made during program coding
- Insufficient or inadequate error checking

The design of a software package is quite often the largest single stage of program development and is the first opportunity for error. An apt example of design error happened when the shuttle Discovery miscomputed its rendezvous with Intelstat 6, in a rescue mission in May 1992. Two values that were numerically close but not exact were rounded to zero. The computer was then unable to make a distinction between the two. NASA subsequently fixed the design error for future flights.

The most common errors during coding are simple typing mistakes, most of which are caught when a program is converted to a machine-readable form (compiling); they emerge as syntax errors. However, a wrong character can sometimes still result in valid code. Project Mercury's FORTRAN program contained the command, DO I=1.10, which should have read, DO I=1,10. The incorrect code worked, but resulted in inaccurate calculations.

The last point, error checking, is a critical factor in any software and quite often the largest area of failure. This is due to the fact that, in a complex system, not all eventualities can be anticipated. Johnson and Nissenbaum express this idea:

> "We must therefore anticipate all the circumstances under which the system might be used and describe what action it should take under those circumstances. For a very complex system, it is unrealistic to imagine that one can foresee all of these circumstances."

Risk assessment

A critical part of any system design is the anticipation of failure and the possible consequences. This assessment of risk is a three-fold problem:

- In what ways can errors occur and what would be the consequences?
- What are the probabilities of these errors occurring?
- Given the probabilities and consequences, is a solution cost-worthy?

The severing of the New York telephone cables is a clear indication of the impossibility of anticipating all possible causes of system failure. As well, it is difficult to fully realize beforehand all the causes and consequences of errors. For example, a system can suffer a specific failure for a number of reasons—the cause may not be unique. Conversely, an error may not have a unique effect; circumstances can dictate varying failure scenarios.

The second part of the problem is determining the criteria used to assess risk. We tend to fear some threats while ignoring others. The consequences of being involved in a plane crash are far graver than catching a cold but the probabilities are in reverse proportion. There's a far greater chance of catching a cold so we faithfully swallow our vitamin supplements as we board a flight that's destined to crash. Johnson and Nissenbaum write, "An increasing dependence on computers and digital technology implies an increasing vulnerability to malfunction." Our trust in technology and the resulting complacency can lead to faulty risk assessment. In balancing probability against consequence we have to answer the almost impossible yet critical question: "How safe is safe enough?"

Finally, even with an accurate risk forecast, we have to consider cost. The severing of the New York telephone cables could have been easily anticipated by installing redundant cables, but the low probability of the cable's destruction weighed against the enormous extra expense renders the solution unfeasible.

Human intervention—malicious and otherwise

Even given an ideal system that has been designed and built perfectly, has no defects in the software, incorporates fully comprehensive error trapping, and where the risks and consequences have been fully realized, it has to be used and maintained by error-prone humans. Some of the most unfortunate and unnecessary instances of system failure can be categorized into three groups of failure through human intervention:

- Misuse through accidental disablement, misinterpretation of data, the operator not following correct procedures, substandard maintenance, etc.
- Purposeful circumvention of system controls
- Malicious attack

All of the points listed in the first group are illustrated by the crash of a DC-10 cargo plane in Minnesota in 1992. During a repainting, an external altimeter, located in a recessed opening in the fuselage, was covered for protection, but the maintenance crew failed to remove the mask afterward. On the next flight, the instrument falsely reported increasing altitude when in actual fact the plane was barely climbing. However, the crew was un-

aware of this due to heavy fog, which obscured the ground. As the plane approached a hillside, the rising ground level set off the proximity alarm. At the same time, the altimeter read 5,000 feet, which, unfortunately, the pilot chose to believe, thinking the proximity sensor must be faulty. Did he follow procedure? In this case, there probably was no correct procedure because the nature of the disablement was unanticipated.

Even the best of systems can fail when the operator somehow bypasses its procedures or the system itself. On April 6, 1993, the driver of a San Francisco Municipal Railway train disabled the safety controls, permitting him to run the train faster than controls dictated. When entering the car barn he crashed into another train that had stalled in the Twin Peaks Tunnel. On April 10, 1990, the driver of a London Underground left the cab of the fully automated train (contrary to standard procedure) to check a door that had failed to close. He had taped down the starter button, relying on the interlock system that prevented the train from starting when a door was open. He managed to close the door, at which point the train took off without him.

The final group is the most fearsome, since it involves people who are actively bent on destruction, by hacking into systems and networks to cause damage or by spreading virus programs. Part of the problem here is the lack of comprehensive law covering computer crime. This is another example of the human factor. We are having problems simply defining computer crime, which is an indication of the larger problem of defining computer ethics. For example, Peter Neumann writes about a new ethical dilemma arising out of the gap between technical and social progress:

> "People seem naturally predisposed to depersonalize complex systems. Computers are not people, and therefore need not be treated humanely. General ambivalence, a resulting sublimation of ethics, values, and personal roles, and a background of increasingly loose corporate moralities seem to encourage in some people a rationalization that unethical behaviour is the norm, or somehow justifiable."

Another symptom of our underdeveloped ethics is the lack of serious legal deterrence (punishment). Following up on break-ins at the Lawrence Berkeley Laboratory, Clifford Stoll identified one of the hackers, Markus Hess. Hess and his accomplices were accused of working for the KGB. Three of

the team received mild convictions on espionage charges, but there were no computer-related charges.

Terrorist attacks on our communication and power systems are perhaps the most dangerous to our society. Drawing upon an extraction from Risks Forum regarding terrorism, Neumann also writes, "It is a widely articulated opinion that, sooner of later, a serious collapse of our infrastructure— telephone systems, nuclear power, air traffic control, financial, and so on —will be caused intentionally."

Conclusion

Despite our continuing advancements in electronic hardware and software, despite the experience we have gained in risk assessment, error trapping, and safety controls, our fragile technology remains at the mercy of human fallibility. And it will probably always be so—at least as long as we remain human. So long as we continue to build errors into our system designs, mis-use systems, whether intentionally or otherwise, fail to communicate, and fail to adequately answer the question, "How safe is safe enough?", we take risks in placing trust in our technology.

However, this may be a good thing because risk forces us to grow. Life has evolved through risk. Mutation is nature's way of searching for an improved species. Many fail and die out, but the winners survive and thrive. Man's technological advances grow out of risk taking. We are probably doomed to live with risk, error and failure, but if we can learn to work with our systems and with each other, maybe we will be able to at least eliminate disasters that are unnecessary and, sometimes, downright stupid. Perhaps one day we'll be able to remove the fragility from our technology.

fiction

These final works are samples of rich prose. The first is a short story told by a ten-year old boy, and therein lies the challenge. The language and phrasing must sound like a preteen, and reflect the narrator's level of personal and social development.

In achieving this approach, a possible device is profanity. Children of this age have usually begun to augment their speech with swearing (personal experience), but this story is intended for an audience of all ages, so profanity has been avoided. Of course, this only increases the challenge of portraying the mind of a street-wise kid, so hopefully, through phrasing and content (the stunts in which the narrator and his friends engage), the reader can hear the swearing without actually reading it.

The second story is, again, a narration, but as told by an older boy. Like the first story, this one has a light-hearted tone and even takes a small step toward actual humour. It may even elicit a chuckle or two.

The Great Hospital Ripoff

Okay, this is the scene. I'm ten. Me and my friends, we all live at the top of the James St. hill, just up from Saint Joseph's Hospital. So what do we do for fun? Well, during the winter, throwing snowballs at cars is a regular high. The '58 models just came out and they all have these big fins on the back that make great targets. It's fun hitting a moving target, not that it's so hard to nail something as big as a car. We go for the driver's window and the real fun starts when some guy actually stops, gets out and tries to catch one of us. None of us have ever been caught; we're too fast and there's a dozen places where you can lose a tail. Like, one is this apartment building across from the hospital. There's a basement and two floors. You run in the front and take either the first floor or the basement hallway to the back, flip open the back door as a decoy and wait for your tail. If he comes in (women never chase) you can tell which hall he's coming down 'cause the first floor has carpets and the basement doesn't. So if he comes along the first floor, you double back to the front through the basement hallway. They usually go tearing out the back and they've lost you.

But that's in the winter. The rest of the year we like to terrorize the hospital—firecrackers through the front door is a scream. We wait until there's some patients in the sitting room that's beside the front lobby. One guy holds the crackers, another lights them and a third opens the glass front door. After the first guy tosses in the bangers, in the direction of the open sitting room, we run around the corner where we can look in the side window and watch all the old farts inside having a fit. What a howl! A clean, quiet hospital's a great place for some noise.

Oh, I guess I should introduce my two pals. Foremost and leader most, Billy Black—medium build, blond hair and really white skin. My mom thinks he's an angel 'cause he's so polite to her, so she's always yelping at me, "Why can't you be more like him?" Ha! He's the one who showed me how to shoplift and most of our pranks are his ideas! But I can't clue her in 'cause that'd be snitching, and she wouldn't believe me, anyway. So I gotta put up with mom's lecturing. Really grinds my butt. The other guy is Pete Balough—always joking around, short and wiry, runs like he just came out

of a cannon. Great hockey player, too.

We don't do the firecracker thing that much, though, 'cause most of the year they're hard to come by. But we do make regular trips to the hospital candy store that's at the end of the main hall, beside the elevators. It's not the kind of shop you walk into; it's like a little room built into the wall. There's a door so the guy who runs it can go in and stare back out at you through the hole in the wall that's his counter. And the guy is blind. Not very tall, kind of plump, his hair is gray, thin and recessed, like he's got a really high forehead, right? You can see his eyes 'cause he doesn't wear those dark glasses. They're gray, too.

Now you might ask, how does a blind guy run a store? I mean, he must have some way of telling paper money, otherwise people would be constantly ripping him off. The first time we saw him, this is just what ran through my mind. We'd gone up to the counter, I wanted to buy a Coffee Crisp (Love that crunchy!) and I looked at his eyes. Now this is the truth, there's definitely something wrong with them. They look glazed over, and he has that sort of cross-eyed, 'looking-sideways-into-nowhere' stare that blind people have. I remember wishing I'd had a dollar bill to pay with so I could see what he does with it, but all I had was a dime. After getting my Crisp I stepped away and there was lady right behind me, so I hung around, unwrapping my chocolate. She asked for a pack of Black Cat cigarettes and handed him a dollar. I thought, "Alright! Let's see how the blind guy handles it." But then this dumb lady tells him it's a dollar—so much for that. Then I thought, maybe everybody does this, and if they don't, the blind guy probably asks. But still, you could lie and say it's a twenty. How would he know you're not ripping him off?

I had to find out about this so I said to Billy and Pete, "Guys, we could have a gold mine here. Let's hang around and see if this guy really is blind. If he is, there's no way he can tell paper money." So we hung around, standing by the elevators as if we had some actual, real business there. Sure, we were doing this mainly out of greed but I was also just plain curious.

He was doing good business but everyone who gave him a bill said what it was. Then finally this doctor stepped out of the elevator, walked up to the counter, asked for butterscotch Lifesavers, handed the blind guy a dollar and just said, "Here you go." I thought, this is it! I watched as the blind guy held the bill right up to his face for a second, then opened his cash register and made change. Rats! He could see, just not too good, so

people usually helped him out.

It was now 5 o'clock, so the blind guy started closing shop, clearing off his counter and pulling down the slated-wood covering for the hole, just like a roll-top desk. After a few minutes, he finally came out, turned and locked the door, then started walking down the main hall towards the front door. And he had a white cane which he gently tapped up and down on the floor in front of him, like a dog sniffing for a bone. Tap, tap, tap, tap. Now we were really confused, so we followed the blind guy outside and watched him walk over and stand by the bus stop. Standing around, talking it over, the only thing we could figure was that he's blind but maybe not all the way. Later on, I told my dad about it and he said the guy probably has tunnel-vision, where he can only see a tiny bit and it's got to be up close. That's probably what's wrong with him, but we still call him the 'blind guy.'

Well, that was the end of our gold mine, but we found something else to do that's just as dirty but with less risk and probably a lot more fun. In the basement of the hospital there's a Coke machine and a rack where you put your empty bottles. These bottles are worth two cents deposit and by the end of the day the rack is usually pretty full. And guess what? The blind guy upstairs takes them! So we empty the rack, go back upstairs to the candy shop and cash in all the bottles. What a gas, ripping off the hospital, over and over. Walking away with a couple of chocolate bars is great, but it's more the thought of 'doing the adults' that's the real fun.

This Has Been a Cob-scene Phonecall

I wonder if my uncle's false teeth are going to pop out. To see the way he's tearing into that freshly-picked cob of corn, you have to expect it. That's why I made sure to grab a spot facing him, on the other side of the weather-beaten picnic table we keep out in front of the farm house. The whole family's here—man, there must be 20 or 30 of us—celebrating the end of the corn harvest. It's a searing August afternoon and even though the table's set in the shade of a huge Manitoba maple, I'm sweating like that wrinkled gray sow we used to have, the day my pa stood in front of it and decided, "Hell, it's time we ate this fat old pig."

So why am I expecting to see my uncle's teeth get away from him? Because, it happened once before during a Sunday morning sermon. Uncle Gordie—The Reverend Helpen to his parishioners—runs the local church.

Now, considering we all live about 50 miles north of Winnipeg on a bunch of farms, you'd think the Sunday morning congregation would be a little sparse, but Uncle Gordie manages to draw in a good-sized flock. It must be the force of his 'larger-than-life' (and most of the rest of us) personality.

He's quite a spectacle, up in his pulpit, pounding out a sermon. Over six feet, gaunt, yet fit from helping pa work the fields (They have some kind of financial pact—Uncle Gordie could never have bought that shiny, red convertible on what he gets from preaching.) he carries an imposing presence, what with his frothy mane of white hair and thickened hawk nose that somehow always looks as if it's in forward motion and that, if it had its way, it would take to flight, dragging Uncle Gordie along by the face, his feet dangling gracefully in the air. (It would have to be 'gracefully' since Uncle Gordie never did anything embarrassing or awkward; the sheer force of his will left little doubt in the minds of those around him that anything he did was fit, proper and will executed.) And his clear blue eyes under those bushy white brows seem to stare right into your inadequate soul, making you feel obliged to look down, shuffle your feet and somehow apologize for all your human failings.

Getting back to his teeth, on the Sunday in question, all the families in the district were gathered in the church. I say 'church', but it used to be an old farmhouse. When Uncle Gordie gained possession he got a bunch of the local farmers to spend a week gutting the interior, installing the podium and pews, which he'd picked up for a song at an auction in Winnipeg, and laying a fresh coat of white paint to the outside. They even put up a wooden steeple, using the now unused chimney as a foundation. This was all paid for by local contributions, another testament to Uncle Gordie's compelling aura and gift of gab.

On this particular Sunday he, as usual, had us all mesmerized and glued to the pews with a withering, thunder-and-lightning sermon about how, if we didn't behave ourselves, God would turn us all into poles of salt and we'd end up roasting our chestnuts over Hell's bonfires. At one point he was giving us the family history of some ancient biblical hero when, right in the middle of a who-begat-who, his upper plate popped out of his mouth! What made it especially spectacular is that it didn't just tumble out and fall down the front of his black shirt, but actually shot out of his open mouth as if it had been spring-loaded. (He was so good at instilling religious fear, I figure his dentures got scared and were trying to flee the Wrath of God.) His teeth would've cleared the podium and landed in the first row, but Uncle Gordie, with amazing reflexes, shot out his right hand, grabbed the toothy projectile in mid-flight and put them in his trouser pocket.

The whole incident occurred in a flash and we all sat there in stunned disbelief. Normally, this would've been hilarious and I would've spent the rest of the service trying to keep from laughing out loud, but it happened so quickly and was so bizarre that the best I could do was a lopsided grin of amazement, frozen onto my face by the shock of what I'd just witnessed. Meanwhile, although the entire congregation sat muffled under a blanket of astonishment, Uncle Gordie didn't even miss a syllable; he just carried on as if his denture's misbehaviour was a daily event.

Like I said, *He*—(I think at this point it would not be inappropriate to capitalize the pronoun of this extraordinary man)—*He* (it deserves repeating) never seemed to stumble or look awkward. If anybody'd had the nerve (take note of the first word in this sentence) to mention the event to Uncle Gordie as we single-filed out the front door, *He* (still retaining his elevated position) would've calmly laughed it off as some silly little occurrence over which *He*'d immediately gained control, completely removing any of its

potency to make *Him* appear a victim of chance. And incredibly, that's exactly how *He* handled the situation.

So here I sit, facing my uncle as he massacres row after row of kernels on the cob, waiting to see if his false teeth are going to make another grab for freedom and try to flee the fate that awaits all us sinners. This time, I swear I'll laugh. Well, perhaps after I've wisely vacated His vicinity—like a mile or two down the road.

appendix

Special editions of this booklet were produced with a personalized dedication page as gifts for family and friends.

The four women of my birth family (mother and three sisters) are represented by the four ancient elements: earth, water, air and fire. By focusing on a particular characteristic of each person, I created a relationship with one of the elements.

My wife's parents, Jim and Tish, raised two children and a lot of animals, including a chinchilla, a hedgehog and some goats. Out of all of these, the most special was their basset hound, Daisy.

John and Eileen, my most intimate friends, are like the poles of a magnet: divergent temperaments, but one can't exist without the other.

Finally, the regular editions of this publication (of which this is one) are dedicated to Willem Hart—designer, artist, teacher and mentor. During my first year of design study, he taught the Visual Language course, and in years 2 - 4, the upper-level typography courses. There's quite a bit of Willem in the design of this book.

Dan Elliot
November, 2002

for Mom, the creator
the fertile Earth

for Cindy, the controversial

the heat of the Fire

for Leslie, the tranquil

the calm Waters

for Susan, the garrulous

voices in the Wind

for Jim & Tish, the life-house keepers

caretakers of man and beast

for John & Eileen, the magnetic poles

inextricably together