

Poetry Collection

Reflect-IT

(1991-2024)

John O'Reilly

Reflect-IT

by John O'Reilly
(c) 1991-2025

dedicated to:

Ms Uren, Michael Phillips, Wayne
Nance, Leon Schwerin,
Neil Schwenke, James Whittred,
David Abercrombie &
Rob Brown.

Note:

- Within this poetry collection, i have presented a range of person, product and company names for your reference.

If the history of IT might be an area of interest for you, there is an absolute wealth of text-based and video-based information available for research and review.

- Many of the various product and company names would be registered trademarks to their respective owners.
- If you believe there is something i have noted that may require amending, please let me know.

...150 thoughts in and around Info Tech...

Contents

Contents	4
NEW	7
SCOPE.....	15
MILLENNIA	17
WHAT?	20
MEDIA.....	21
BEFORE.....	24
INCIDENTALLY	25
ARITHMETIC	27
JIGSAW.....	29
TECH.....	34
HOURS.....	36
DETERMINATION.....	38
SPACE	40
PARADIGM.....	42
INSPIRATION	52
IT	54
DESIGNER	55
TEAM	56
INNOVATION.....	57

TRANSISTOR	65
DEEPFAKE.....	66
DEPENDENCE.....	67
CLOUDS.....	69
SUNSHINE	71
DIGIFICATION	73
IGWS	75
EMPOWERING	77
CHILDREN	79
EXPONENTIAL.....	81
STEAM	84
ANTICIPATING	85
ENVISAGE.....	86
ORGANIC.....	88
NORMALISED.....	89
RECONCILE.....	90
OWN	92
FEASIBILITY	93
WRITERS	95
MATHS.....	97
PIM	99
HARMLESS	101
ENVISIONED	102
SOLUTIONS	105
DEPEND	107

POETRY	111
FOR.....	112
ACTIVITIES.....	113
PAST.....	114
PRESENT.....	115
FUTURE.....	116
NOWnTHEN	117
ALGORITHM	118
BASIC	120
PASCAL.....	122
C.....	124
JAVA.....	126
UPDATES	128
DETAIL	130
YOURS	137

NEW

(70s)

we watched you press a
button on your watch
the time displayed
bright red, digital

this was something new,
intriguing
inspiring

mum and dad bought us
calculators

(only slide-rules and
printed mathematical
tables before then...)

for school where the
teachers were reticent
to allow us to use them...

this was something new,
intriguing
empowering

we were provided the opportunity
to pencil in cards, cards then
delivered to IBM,
printouts returned a week or so later

this was something new,
enlightening
challenging

(80s)

i bought a Commodore 64
and hid in my room,
programmed for hours
patiently saved my work
to cassette...

this was something new,
challenging
empowering

i bought an
IBM AT compatible PC
cost virtually all i had
MSDOS and Windows 2.0
some telling me a
30 Mbyte HDD (Hard Disk Drive)
was excessive...

this was something new,
challenging
inspiring

(90s)

Amstrad PPC640, 386, 486, Pentium,
laptops with VGA colour,
Atari Portfolio, Dauphin DTR-1
(stylus touch-screen tablet),
Windows 3, 3.1, 3.11, 95, 98...

all new,
empowering
inspiring

BASIC, Pascal, macros,
Neobook, Databoss, C,
VB, VBA, Access, Java
immersed in code
oblivious to the endless
hours lost to time

all new,
challenging
consuming

timeless melody of
dial-up internet,
text-based web-pages,
ascii-based images,
Yahoo, Alta-Vista,
text chat, email,
FTP, telnet...

all new,
intriguing
inspiring

(00s)

touch screen mobile phones -
Apple, Nokia, LG, -
trying to keep up
with the latest was
a mission in itself

all new,
intriguing
empowering

data on phone,
tethering, googling,
(should Googling have a capital?)
emailing, selfies,
fact finding - resolving
lunch table disagreements

all new,
enlightening
empowering

(10s)

more affordable virtual
and augmented reality,
robotics, internet of things,
smart things, 3D printers,
cloud storage, pay-waving
and online purchasing
just made the gap between
enticement and expenditure
quicker

all new,
intriguing
inspiring

yet now, not surprisingly,

feeling a little change weary,

and left wondering what to do
with the various items of
technology once purchased,
now outdated and superseded,

/
still working and yet
not completely obsolete...

(A selection of some of my own
experiences and reflections from
the digital age.)

(With thanks to my Maths teacher Ms Uren.)

SCOPE

...and so with that -

now with a few older PCs, laptops,
software and a couple of handheld
devices -

maybe some reflections might be an
option,
a couple of embedded activities,
a bit of historic context,

selected software -

word processors, spreadsheets,
office software, project management,
programming,

and a look at a couple of handheld /
palmtop devices...

...

and yet,
the research took on a life of its own...

...the absolute plethora of human
invention
that has come before...

(A suggested scope for this collection...)

MILLENNIA

various accounts go back to
clay tablets, abaci (abacus-es),
Quipu, tally sticks, John Napier's
bones,
and the like,

and then go on to mention mechanical
devices:

- the Greek Antikythera Mechanism
- Willhelm Schickard's calculating
machine
- Blaise Pascal's Pascaline
- Gottfried Leibniz's Stepped Reckoner
- Joseph-Marie Jacquard's programmable
loom
- Charles Babbage's Difference and
Analytical Engines

- Ada Lovelace's translation and analysis of Menabrea's Sketch of the Analytical Engine
- Herman Hollerith's Census Machine (the Hollerith Desk) and the subsequent formation of IBM

and still further,
accounts are given of the various
early electro-mechanical and electrical-
based computing devices:

- Konrad Zuse's Z1/2/3/4
- John V. Atanasoff & Glifford Berry's computer - ABC
- Howard Aiken's (IBM's) Harvard Mark I - IV
- the Colossus
- the ENIAC
- the EDVAC
- ILLIAC, JOHNNIAC, MANIAC
- the UNIVAC
- IBM's SSEC, 701, 704
- among so many others...

an incredible history,
spanning multiple millennia

Note: Ada Lovelace is considered one of
the first computer programmers.

WHAT?

and so it is asked...

what was the need?

what was the use-case?

what has been gained?

what has been lost?

what has been

the social impact?

MEDIA

recording sound data, analogue
on a Chinese Drum Shaft Crank music
box

on a 'player piano' roll
on an Edison Cylinder
on a vinyl disk (LP record)
on a cassette

or digital
on cd
in an mp3 file

recording a moving picture, analogue
on film,
on cartridge
on video tape

or digital
on laserdisc

- on dvd
 - on blu ray
 - on hd dvd
 - in an mp4 file

recording computer data, analogue

- on computer punch cards
- on computer paper tape
- on a vinyl record
- on a cassette

or digital

- on magnetic tape / cartridge
- on hard disk drive
- on IBM Mag Cards
- on floppy disk / diskette
- ssd
- cd
- Omega Zip disk
- dvd
- usb
- nanostructures glass (5D optical storage)...

(Punch cards – late 18th century.)
(HDD – 1953 - IBM.)
(Floppy disk – 1967 – IBM (Alan Shugart.)
(SSD – 1978 - StorageTek.)
(CD – 1979 – Philips & Sony.)
(Omega Zip Drive – 1994 - Iomega.)
(DVD - 1996.)
(USB – 1996 – Compaq, DEC, IBM, Intel, Microsoft, NEC, Nortel.)

BEFORE

one wonders what came before
computer games, the Internet,
vinyl music, VHS movies, YouTube,
social media, eBay, Spotify, Netflix,
digital watches, Iced VoVos,
selfies on mobile phones,
(did I mention computer games?)

/

one wonders...

INCIDENTALLY

prior to the 11th Century

(even through to the 1300's and 1400's)

one of the primary ways to
duplicate a book was by hand

prior to the 1800s concert music
could only be enjoyed when it
was performed live

prior to the 1800s most recorded images
were in the form of a painting,
sculpture, sketch, stamps, material
prints, and such like

prior to the 1890s
there were no colour photos,

prior to the late 1800s there were few
motion picture recordings of people,
of events,
of the world as it was

prior to the late 1900s the Internet
was not as we know it today

take a moment to appreciate,
truly appreciate,
our current good fortune...

ARITHMETIC

taking that electronic calculator away from
me...

now how do i
sum a column of numbers,
multiply two large numbers,
divide...

i might reach for...

a Roman hand-abacus

a slide-rule

an Addiator

a Curta Calculator

a mechanical calculating device,

or i could...

sum that column of numbers
multiply those two large numbers
divide...

like my parent's generation did,
in their heads, or on paper,
quickly,
accurately,
not missing a beat...

JIGSAW

the jigsaw pieces of our lives
our world views
so many pieces
coming together
some so bright and shiny,
some, a fair portion,
mundane,
some depressing, sad, emotional,
hidden away,
so many corner-stoned
now in tech...

-0-

and yet each tech piece
in turn,
has its own

jigsaw pieces
tech-based pieces
tech-based parts
tech-based advances
tech-based processes

which in turn have...

-0-

unlikely someone woke up one morning
and in a vacuum designed and built a
mobile phone
from first principles,
gained the engineering
knowledge and skill,
created a touch screen,
formed the glass,
out of sand,
over breakfast

then...

built an integrated circuit,
over lunch,
and assembled a mobile phone,
over dinner,

-0-

imagine yourself doing so from
a collection of your own household
items...

-0-

and yet our world's
jigsaw pieces
include a
century or more of
awe-inspiring creations...
aircraft,

spaceships,
formula 1 & super cars,
high-rise buildings,
massive bridges,
intensive agriculture,
medicines,
TV's, USB's
Tim Tams,

and the odd mobile phone

-0-

to those who have grown up
in a world filled with
mobile phones, laptop computers,
computer tablets, the Internet

look back,
just for a moment,
in wonder...

-0-

the jigsaw pieces of our lives,
so many based on tech,
so many dependent on
high tech processes and parts

what has been gained?
what has been lost?
what has been the social impact?
what has been the cost?
what have been the benefits?
what are the risks?
what do we now take for granted?
what are the risks? (oh, did i ask that already?)

TECH

take a business ledger

re-engineer it on screen

imagine an electronic spreadsheet

(Professor Richard Mattessich (1961), Daniel Bricklin / Bob Frankston (1979))

take a historic record

off of rock walls, clay tablets, papyrus,
paper, ...

duplicate via movable-type printing

(Bi Sheng (11th century), Jikji (book, 1377),
Johannes Gutenberg (1436-1440), followed by numerous others)

tap it into a typewriter

(Henry Mill (1714), Pellegrino Turri (~1801-1808),
Christopher Latham Sholes, Samuel W. Soule, Carlos Glidden, John Pratt (1800's))

a repetitive typewriter

(M.Shultz Company, IBM's Magnetic Tape/Selectric Typewriter)

a (hardware) word processing

machine

(IBM's MT/ST (1964), Lexitron & Linolex
(with video display, 1972), Vydec (with floppy disk, 1973), plus various others.)

record it electronically within an

editor, word processor,

(Michael Shrayser's Electric Pencil (1976), MicroPro's WordStar (1978), ...)

desktop publisher

(on Xerox PARC's Alto, James Davise's Type Processor One,
FrameMaker, TeX, Aldus PageMaker, Ventura Publisher, ...)

take an abacus, Quipu, tally sticks, John
Napier's bones, slide rule, tables
automate with vacuum tubes
transistors
silicon chips
add machine programming language
assembly programming language
FORTRAN (John Backus' team @ IBM)
COBOL (CODASYL group)
...

take on a wealth of inspiration from our
past,
imagine an even greater future...

HOURS

a moment to reflect on
the millions of human-hours
expended,

made redundant by changes
in hardware tech
changes
in software languages
changes
in operating systems
changes
in network infrastructures
changes
in computing paradigms
changes
in....,

/

with
progress,

/

the millions of human-hours...

DETERMINATION

years of deliberation,
a long drive,
a roadhouse stop
and a binary-based
computer drawn out,
on a napkin

deliberation,
inspiration,
determination,

often that ‘overnight success’
really can take years

/

they say
10 years,

/

of patience,
persistence,
deliberation,
determination,
and dedicated
focus...

(John V. Atanasoff's vision
of the ABC computer.)

SPACE

offer those skilled, inspired, enlightened,
driven,

the space,
funding,
time,
encouragement,
faith,
patience,
self-direction,

... the opportunity,

to
investigate,
discover,
devise,
create...

/

history has shown...

(eg: J.C.R Licklider's various teams
and associates,
IBM with the John Backus' team,
Xerox with the PARC research group,
DIP, Google, ...)

PARADIGM

shift,

in 60 years

give or take a week,
we went from computers
that filled a room
with great air-conditioning units,
calculating mathematical equations,

to the mobile phone...

truly,

take a moment to appreciate
/ fathom
this...

-0-

1947 machine coding was made
slightly more palatable with the
development of assembly code

1957 John Backus' team (IBM) reduced the
workload cost of programming with
the development of FORTRAN

1955-60 FLOW-MATIC, COMTRAN,
ALGOL
COBOL, LISP... all found their place

...all bringing with them,
a paradigm shift in computing

-0-

1964 John G. Kemeny & Thomas E. Kurtz
brought BASIC to and promoted
timeshare computing with
Dartmouth College students
and then to the world

1970 Niklaus Wirth allowed students
and the world of programmers to
appreciate Pascal and its
structured programming

1964-72 BASIC, PL/I, Pascal, C, Prolog,
Smalltalk – came into being

...all bringing with them, a
further paradigm shift in
computing

-0-

for math(s) applications and calculations
the world went from fingers, notches,
clay tablets, abaci, math(s) tables,
and slide rules (slide rules – 1620's)

to Addiators (1849), Curta Calculator (1930's) and
other mechanical calculators

(150BCE (BC) into the 1900's)

then to those computers that filled
rooms,
and binary-based systems that were
about the size of an office desk,
onto desktop electro-mechanical
calculators (1927 - 1960's),

then

desktop electrical calculators (1963 -)
that morphed down to
handheld calculators (1967 onward),
models becoming prolific
through and after the 1970's
/

some not trusting these
new-fangled devices,
wanting an abacus on
the side of
the calculator
to check the calculations,
or..

quite possibly the abacus was
faster for specific calculations...

/

then the emergence of programmable
and then graphical calculators

(Hewlett-Packard, Texas Instruments, Clive Sinclair, Sharp, Casio)

and computer-based spreadsheets

(Professor Richard Mattessich (1961), Daniel Bricklin / Bob Frankston (1979))

...all bringing with them, a further
paradigm shift in computing

-0-

meanwhile,
as hand-held calculators got cheaper
and more capable, they started
to morph into hand-held programmable
personal computers

(Sharp (eg: PC-1210/1211/1212), Casio, among others)

anticipating a whole generation of
hand-held computing devices

(Psion, DIP, Atari, Poqet, HP, Tidalwave, Sharp, Apple, Palm, Toshiba, and numerous others.)

...yet another
paradigm shift in computing

-O-

several (not so many) generations ago, a
supply of paper, pencils and pens
was virtually considered a luxury,

/

slowly,
eventually,
made more affordable,
more available,

/

further opening a demand for
typewriters,

(Henry Mill (1714), Pellegrino Turri (1808), Rasmus Malling-Hansen (1870), numerous others)

morphing into electronic word
processing devices,
computers that filled rooms, with
computer terminals
and word processing software,
then desktop computers, with
word processing software,
(CP/M and DOS based: Electric Pencil, WordStar, EasyWriter,
Word Perfect, Magic Wand, Display Write, Volkswriter, & numerous others.)
laptops,
palmtops,
pda's,
iphones,
ipads
and other various computer
tablets, mobile phones
and other devices,

again a seemingly endless plethora
of device styles, makes, and models
...each a paradigm shift along the way

-0-

computer graphics,

(Ivan Edward Sutherland's Sketchpad and his work on computer graphics)

the first mouse,

(SRI International's Douglas Engelbart and Bill English)

inspired work by Xerox PARC,

along with Ethernet,

graphical user interface,

WYSIWYG text editors/processors,

(including Bravo)

Smalltalk,

laser printing,

pre-empting and/or inspiring a

slew of graphical style operating

systems

and graphical shells

(Three Rivers PERQ, Apple Lisa and Macintosh O/S's, VisiCorp's Visi-On,
Digital Research's GEM, Berkeley Softworks' GEOS,
Microsoft's Windows, among a number of others...)

...yet another
paradigm shift in computing

-0-

in 60 years
give or take a week,
we went from computers
that filled a room
with great air-conditioning units,
calculating mathematical equations,

to the mobile phone...

the Internet,
talking to computers,
Google Home (and others)
adding wheels, fins, arms, legs,
some with initial AI

...all further paradigm shifts
coming into being

-0-

as the user interfaces / interactivity
morphs to potentially
more verbal
more visual
more sensory
less screen

to computing devices that
plug directly into our brains

or are grown...

...what will be
the paradigm shifts of the future?

INSPIRATION

so many a fortune made
on the inspiration of those before,

so many a fortune not made
when the interest of the market drifted
away

/

the path
not
anticipated

/

hats off to those that envisaged the
purpose,
creatively designed and laboured,
some then letting go of the reigns

it can be their stories that potentially
encourage us
to actualise our own inspirations

IT

this landscape
is it
it shifting
year to year
new silicon
new bits
and pieces
of hard
wearing it
down
keeping it
it current

(Frustration with trying to keep up
with changes in Info Tech - it)

DESIGNER

complexity head on

faced
analysed
designed
developed
systematised

so

it

/

this thing

for all of us

is easy to use

(Engineers, IT developers, technicians, designers, etc
take on system complexity and work to hide it behind
a user-friendly interface.)

TEAM

you come into being only
because a group of
complementary skills
can be drawn
together
can be
co-ordinated to...

(Amazing what a group of skilled people
can come together to achieve....)

INNOVATION

out of necessity...

with the need for improved
WWII radar tech,

Sir Henry Thomas Tizard and the
British delegation
sparked research, industry and
development in the U.S.,
pathed a way for the
growth of modern U.S. I.T. tech

with the need for much greater
human-computer partnership (symbiosis)

J.C.R. Licklider and many others
laid the foundations for better shared
networking and ultimately the
Internet

with the need for artificial intelligence
and an even smarter computer

John McCarthy, Nataniel Rochester,
Claude Shannon,
Alan Turing, Marvin Minsky
Allen Newell & Herbert Simon
all contributed to and laid
foundations
for A.I. development

with the need to reduce the drudgery
and the then substantial cost of
programming

John Backus and team (IBM)
created FORTRAN

with the need for business to
have its own dedicated programming
language,

the CODASYL committee
brought together the talent
(including indirect influence from Grace Hopper)
to give birth to COBOL

with the need to make programming more accessible for students from a range of disciplines

John G. Kemeny and Thomas E. Kurtz
created BASIC and promoted
computer time-sharing

with the need for a better user interface,
networking and print quality

the SAGE Project and Ivan Sutherland's
Sketchpad

set significant groundwork for

graphical user interfaces,

SRI International's Douglas Engelbart

and Bill English

(inspired, in part, by Vannevar Bush)

created a mouse, a UI and a network
link

presented in their 'Mother of all
Demos',

inspired, with some personnel moving
from SRI,

Xerox PARC to create the ALTO and
Star computers,
and laser printing, (Gary
Starkweather)
which in turn seems to have somewhat
inspired Steve Jobs and Apple's Lisa
and Macintosh computers,
while other GUI interfaces offered their
own inspirations and facilities:
Quantel Paint box, Three Rivers
PERQ, Blit, Visi-On, Gem, GEOS,
Windows, Agat, MEX, X-Windows,
numerous others, ...

with the need for standard applications
on personal computers

Dan Bricklin and Bob Frankston
created VisiCalc spreadsheet
and Michael Shrayner
created 'The Electric Pencil'
word processing software

with the need for a better word processor
for the then new IBM computer

Camilo Wilson created Volkswriter

with the need for a better chocolate biscuit

Ian Norris (Arnotts) created the

Tim Tam biscuit, apparently inspired
by the British 'Penguin' biscuit.

out of necessity...

brings a plethora of such stories, some of
which include...

Xerox's Alan Kay prototyped the

Dynabook,

anticipating today's computer tablets,

Niklaus Wirth influenced by ALGOL W
efforts,

expanded on structured programming
with the development of Pascal,

Gary Kildall wrote PL/M (Programming Language for Microcomputers) and then CP/M (Control Program for Microcomputers) - the first high-level programming language and operating system respectively, for microcomputers.

Mitch Kapor (Lotus) dominated the IBM PC DOS spreadsheet market, Charles Simonyi and Richard Brodie (two Xerox Bravo programmers), commissioned by Bill Gates and Paul Allen, built the original Microsoft Word for DOS, and for Xenix,

(i wonder how the Magic Wand word processor source code fits into this history?)

Sir Jonathan Paul Ive worked closely with Steve Jobs in the design of Apple products, the Apple Park building, Apple stores, as well as portions of some Apple user interfaces,

Douglas Klunder and team looked to improve
on the spreadsheets of the day, with the
development of Excel,

John Meyer, Don Heiskel and Lee Jay
Lorenzen (ex-employees of Digital Research)
established Ventura Publisher,

Jeffery C. Johnson visualised and
established the tree-view that
corner-stoned the XTree program,

Philippe Kahn and team
developed Borland's Sidekick,

Veron D. Buerg developed The Buerg
Utilities (including List.com),

Robert Voit (pilot) established what was
to become Paint Shop Pro,

Pito Salas, a developer within Lotus'
Advanced Technology Group,
envisaged an alternate approach to
spreadsheet applications,
resulting in the development of
Lotus Improv.

and so many others...

out of necessity...

came the wealth of innovations
we now all enjoy, embrace,
or maybe just take for granted,

/

these are the shoulders
on which we stand...

TRANSISTOR

it has been suggested
that the transistor was
the greatest invention
of the 20th century...

/

tough call i would think,

there would have to be
quite a few contenders
for such an honour...

/

your thoughts?

(See the YouTube video referenced
at the end of this collection.)

DEEPPFAKE

the layers of cyber deception
ever growing
ever expanding
ever obfuscating
ever threatening
ever distressing
becoming
ever present

/

what's the risk?

(oh, did i ask that already?)

DEPENDENCE

so '*now*'

so cool

so rad

so tech

survival instinct

calls us

to jump on board

float along

paddle

/ even

depend on,

with blind abandon

spare
a moment
in the event
that...

so new
so wet
/
without
a paddle

(The need to consider the risks of taking on and becoming solely dependent on new technologies (some now 100+ years old).)

CLOUDS

some clouds are wispy
unobtrusive, illusive,
light on, sometimes
hard to connect

some clouds are fluffy
illuminating, welcoming
reassuring, delivering,
very present, very
keen to connect

some clouds are menacing
threatening, damaging,
wilful, imperative
to disconnect

and yet,
in the hands of god,
we sometimes blindly...

(Our clouds, virtual or otherwise...)
(*God (god) is sometimes an IT reference.*)

SUNSHINE

And still the sunshine brings acclimation

(and possibly acclamation)

Another paradigm, another iteration,
Once a telegraph, a telex, a transportation
Is now sized down to hand-held
communication.

The sunshine floods in unconfined
Expands out with each and every waking
mind,

So many more now are so inclined
Self-actualising thoughts once undefined.

This sun, this sunshine has not always
been,

Those with power have controlled the
scene,

They've kept the masses fixed with routine
In dogma, in ignorance, kept knowledge
lean.

Curious to know where this light will end
How far as a species we can expect to
ascend,
How much thinking, creativity, drive can
we expend
And how much responsibility will we have
to append?

But for now let us think, let the sun shine
through
Pondering on things we consider are true /
new,
Not taking for granted our current
worldview
Just wondering what we'll see as the next
big break-through.

DIGIFICATION

arrived early for class,
plugged into a little heavy metal
keeping the outlook young,
energised and inspired

time connecting
with friends – games,
music, streamed tv
series, events

text-versations
txtspking, txttalking -
events, thoughts,
connections, drama

morning break
out of the obligation,
to what's '*real*', to
what's '*important*'

hand held net
face book-ins
twitterisms, you
tubing, tapped
in
digital is the medium
connections still human
and chasing the full
rainbow of affirmations...

IGWS

EMFBI

this is FYEO (SCNR)

IMHO

this may be a CWOT

but AFAIC

it's a pretty efficient way

to chat, IYSWIM

i say:

G4I,

WYT,

WTH

GGN

C ya.

just maybe...

TMA

(Reference: NetLingo.com)

(IGWS: It Goes Without Saying)
(EMFBI: Excuse Me For Butting In)
(FYEO: For Your Eyes Only)
(SCNR: Sorry Could Not Resist)
(IMHO: In My Humble Opinion)
(CWOT: Complete Waste of Time)
(AFAIC: As Far As I'm Concerned)
(IYSWIM: If You See What I Mean)
(G4I: Go For It)
(WYT: Whatever You Think)
(WTH: What The Heck)
(GGN: Gotta Go Now)
(C ya: See You)
(TMA: Too Many Acronyms)

EMPOWERING

g iven life's many opportunities, and
o ur need to know it now,
o rigami or thermodynamics, we
g leam what and when and how,
l ook to curb our ignorance, we
e licit what we need... then devour

i t's been millennia in becoming,
t ake it in, take it on, search for it...
empower

or maybe...

G rans finding heavy metal
O n a site that's free to stream,
O scar's investigating zombies
G iven he loves to watch and scream,
L esley's trawling sites on time travel
E veryone thinks it's just a dream.

I magine life without this, so few years
ago
T o type in what you seek,
then view it there on screen...

CHILDREN

the sun rises
with good intent,

even with the odd
sting of heat

but the
children of,
the
children, the
grand children
of the sun,

/

what of their
intent, what
warmth will
they, what
search result,
what
application,
what
platform,
will they
serve?

EXPONENTIAL

with each new discovery
new innovation

/

capacitors, relays,
vacuum tubes, transistors,
LEDs, magnetic tape, ...

/

the list
seemingly
endless

/

/

the number of new tech products,
services, components,
new tech solutions
expands exponentially

/

there's probably a
mathematical thesis
and a law
encapsulating this...

-0-

some are, no doubt, driving
demanding
potentially funding
that next (new) innovation,

some have a vision that has been
anticipating
awaiting
that next (new) innovation
and are now realising a greater vision,
a new product, component,
service, solution...

while for others,
that next (new) innovation
opens new doors,
serves to inspire a new direction,
product, component, service,
or a further tech solution

with each new discovery
new innovation...

STEAM

while significant efforts
are currently focused
on STEM / STEAM,
including the bridging of
the gender gap in IT,

i am reminded of the
irony that when the
programming discipline
began,
it was more than
significantly represented
by the inspired work
of a woman –

Ada Lovelace
(1800's)

(STEAM – Science, Technology, Engineering, the Arts, and Maths)

ANTICIPATING

like river rapids, it
it does not seem to rest,
anticipating, investing, constantly,
striving to create, to be the best.

a reservoir of funding
filled when times are good,
one month, three months, twelve,
so the tough times can be withstood.

envisaging, imagining, anticipating,
that next big innovation,
fill a yet unrealised need or want,
and ride the success of its inspiration.

ENVISAGE

take any one of the many
present day issues...

a tech solution might
help with a resolution,
or purely help to
play a part...

climate crisis,
world population growth,
deforestation,
wildlife habitat destruction,
obesity,
world political rationalisations
human destruction of
the environment, and our
seemingly relentless and
infuriating need

to eradicate the world's
natural fauna and flora,

the list goes on
and on
and...

one might take on any one
of these many present-day issues...

and envisage a possible
tech solution, or apply
tech as maybe a part solution

one might...

/

what are
your thoughts?

ORGANIC

10th generation computers
may not have
mechanical clockwork parts

may not have
metallic casing,
valves, transistors,
or VLSI chips

10th generation computers
may be grown,
organic robots alone
may well lift AI above
and beyond
the three-year-old child...

(a thought from 1991)

(The thought that eventually computing
technology may become organic, not
metal and plastic.)

NORMALISED

innovations...

- many inter-relationships

- many details by type

- many entities by association

- many specific dates

- ...all referenced

normalised

(conceptual model....)

RECONCILE

while thinking agile

/

now very much
in style

with morning
meeting milestones and
team objectives,
indicators suggest
key performance
may still reflect
just a little planning,
and design,
and client input,
and requirements review,
at the outset

might a builder, with
a pile of bricks, exclaim:
“let’s have a wild go at this...”?

OWN

when a textbook model,
formula or approach
does not directly align
with real world demands,

you may
wish to

adapt the formula,
rework the model,
adjust the approach,

to fit the demands,
and

make it
your own

FEASIBILITY

with so few barriers today
with technical feasibility,
the task at hand becomes
even more one of creativity;
taking the client's needs and
promoting operational feasibility,

/

and financial
feasibility where
possible

/

better design
more intuitive
more accessible
more approachable
more logical

more usable
more palatable
more adaptable
more extensible

and so many more of those
other ‘...able’ qualities...

/

how do we make this
solution feasible?

WRITERS

writing with an
AlphaSmart Dana
distraction-free

/

cut out the Internet,
cut out the formatting,
the layout and design,
the distraction,

/

just write...

more recently:

iA Writer

OmmWriter

HanxWriter

Freewrite Smart Typewriter

Freewrite Traveler

Hemingwrite

all so
/
also...

reMarkable...

and the many other new
e-ink writers

MATHS

it could be said that
most early
calculating machines,
calculating devices,
 were about maths
 driven by,
 about maths,

even early computing languages...
Machine, Assembly,
Fortran,
 driven by,
 were more often about
 maths, science and
 engineering,

then through the 60's to 1990...

MATHLAB, MATLAB, Macsyma,
SPSS, muMath, TK!Solver,
Maple, Cabri, Mathcad,
Eureka, Derive, Mathematica,
plus a plethora of spreadsheet
and cad software, and other
math-related applications
– then and since,

...were about maths
driven by, were
about maths,

PIM

Personal
Information
Manager

on paper

Filofax

Rolodex

calendar

diary

notepad in the pocket

on early micro-computers

askSam

Info-FX

... (numerous others...)

Lotus Agenda

Threadz (Lotus) Organizer

on palmtops

Psion II, 3, 5, ...

Citizen ...

...

Casio BOSS

Sharp ZR, OZ, ZQ, ...

Franklin Rex (w. Rolodex, Starfish

Software (Philippe Kahn) & Citizen),

(later Xircom Rex),

Palm...

on mobile phones

Apple iPhone

Nokia Communicator, ...

...

Samsung Galaxy, ...

/

noting that our current
ability to backup our
personal information
(our day-to-day lives)
is a value-add not
previously enjoyed in
past eons

HARMLESS

when the world's super AI computer
assesses its threats,
it

will label me,
no doubt,
as

‘harmless’

and for you?

ENVISIONED

envisioned
first
consumers
immersed

Verne,
Wells,
Orwell,
Heinlein,
Clarke,
Bradbury,
Asimov,
...

Dr Who
Thunderbirds,
Startrek,
UFO,
Space 1999,
Star Wars,
Stargate
Back to the Future,
...

envisioned

inspiring, defining, materialising,
finding,
/ in part
a place in our present reality,

-0-

so where's our sonic screwdriver,
 our Tardis,
 our K9,
 our hover board,
 our Stargate, ...

can we,

for a moment,

afford to think
 we're all
 done?

SOLUTIONS

Relieving

the drudgery

the mathematical complexity

industrial labour dependency

product QA and integrity

delivering

information availability

auditory & visual reproduction

quality

logistical capacity

travel affordability

a wealth of new industry

improving

response times in the event of
calamity

interpersonal inter-connectivity

Maslow actualisation delivery

the sharing of our diversity

yet...

engendering

the occasional state of anxiety

/

but really...

who would have thought

there was an

IT / tech solution

for this?

for that?

for ...?

DEPEND

software program may depend on an
rdbms, may depend on a
browser, in turn may depend on the
internet, may depend on an
operating system, in turn may depend on
hardware, may depend on a
network;

depending on...

-0-

this robot runs on A.I.
its program
may replace
so many skills

/

(which in the future)
no longer taught
no longer learned

/

-0-

then
some solar storm
takes out the power and
fries our electronics...

/

where did we put
that book again?

did someone mention
backups?

-0-

haven't i already played
my part in this agenda?
business software / erp / supply chain /
crm

saving time
saving money
and with this
shouldn't life now
be easier?

more leisure time?
more fulfilment?
more security?
more relaxed?
more of something positive...
shouldn't it?

-0-

can we, will we
take on the social / ethical
initiative / imperative
to make the change
sustainable?

respectful of people's needs?
respectful of people's lives?
respectful of nature's balance?
respectful of all life on earth?

POETRY

with a head full of code,
 poetry takes a back seat;
yet rhyme pours out on the page,
 when programming is in retreat;
there is a symmetry in here somewhere,
 i find i struggle with which is more
 concrete;
which is the more valid, useful, eternal,
 which one leaves me feeling more
 complete.

/

is it possible that code
is just a variant form
 of poetry?

FOR

```
FOR Each_Of_Those_Moments_When
    Just hold that thought, parse that code;
    Equate each emotive with a stanza;
    Find a format, Set the mode;
    FOR Every_Stanza
        Lay down the score;
        Write out the lines, and then
    END FOR
    IF a thought shows clarity
        Then let it flow and take a whiff;
        Hold that line, document, and then
    END IF
    Debug the code, compile and run;
    Take This_Moment_When and set
                                                restore;
    We have this code, we have this poem;
    All's needed now is a last
END FOR.
```

ACTIVITIES

PAST

taking a line or two from
one of the proceeding
poems,

research a
point of history,
an event,
a project,
an innovator,

and create your own
account,
poem,
picture,
sculpture,
animation,
program,
abacus equivalent,
robot,
...

PRESENT

take a current day innovation,
and consider how it might be
applied to a new direction,
 product, component, service,
 or a further tech solution,

potentially
 for the betterment of
 humanity,
 our world,
 the environment.
 all life on earth,

FUTURE

with the flow and potential
of current tech innovations
and the gaps and issues present
in our current knowledge & skill
consider what might be
the next big idea,
the next big innovation,
the next big discovery,
the next big tech solution

map out how this/these might
be envisioned,
actualised,
created,
formed and
presented...

(you may wish to keep your idea(s) close...
it / they may be the next
big thing...)

NOWnTHEN

... for reference purposes:

Print: "We are going to count in turn"
Print: "until one of us makes an error."

Print: "When we get to a number that is"
Print: "divisible by 5, then we will substitute"
Print: "the number with the word: 'Now'."

Print: "When we get to a number that is"
Print: "divisible by 7, then we will substitute"
Print: "the number with the word: 'Then'."

Print: "For example: 1 - 2 - 3 - 4 - Now - 6 -
Then - 8..."

Print: " and: 32 - 33 - 34 - Now
and Then - 36"

Print: "Let me start..."
Print: "1"
Print: "Your turn..."

(Continued next page)

ALGORITHM

... let's consider substituting only numbers divisible by 5.

... find the logic error contained in the algorithm below:

```
Set CurrentNumber equal to 1
Set IsCorrect equal to TRUE
Set AnswerSuggested equal to 0

While IsCorrect (...is equal to TRUE)
    If the CurrentNumber is divisible by 5 then
        Print: "Computer says: Now"
            (ie: Computer says: Now)
    Else
        Print: "Computer says: " & CurrentNumber
            (eg: Computer says: 1)
    End If

    Increment CurrentNumber
        (ie: currentNumber = currentNumber +1)
    Print: "Your turn: "
    Read in AnswerSuggested

    If (CurrentNumber is divisible by 5)
        If (AnswerSuggested is equal to 'Now') then
            Increment CurrentNumber
        Else
            Set IsCorrect equal to FALSE
```

```
Else
    If (AnswerSuggested is equal to CurrentNumber)
        then
```

```
        Increment CurrentNumber
```

```
    Else
```

```
        Set IsCorrect equal to FALSE
```

```
End If
```

(Note: **mod** gives the remainder after a division. EG: $13 / 4 = 3 \text{ r } 1$.

Thus: $13 \text{ mod } 4 = 1$)

```
If CurrentNumber is greater than 25 then
```

```
    Print: "There's room for improvement. We only
        got to: " & CurrentNumber
```

```
Else
```

```
    Print: "Well done! We got to: " &
        CurrentNumber
```

```
End If
```

BASIC

... find the logic error contained in the program below:

```
REM Example 'Now' and 'Then' Program, without:
'Then'

CLS

LET CurrentNumber = 1
LET IsCorrect = 1
LET AnswerSuggested$ = "N/A"

WHILE IsCorrect = 1
    PRINT "Computer Says: ", CurrentNumber

    CurrentNumber = CurrentNumber + 1
    PRINT
    PRINT "Your Turn: ",
    INPUT AnswerSuggested$

    IF CurrentNumber MOD 5 = 0 THEN
        IF AnswerSuggested$ = "Now" THEN
            CurrentNumber = CurrentNumber + 1
        ELSE
            IsCorrect = 0
        END IF
    ELSE
        IF CurrentNumber = VAL(AnswerSuggested$)
            THEN
            CurrentNumber = CurrentNumber + 1
```

```
        ELSE
            IsCorrect = 0
        END IF
    END IF

WEND

PRINT
PRINT "Sorry your last answer was incorrect."
IF CurrentNumber > 25 THEN
    PRINT "Well Done!"
ELSE
    PRINT "There's room for improvement."
END IF
PRINT "We got to: ", CurrentNumber
```

PASCAL

... find the logic error contained in the program below:

```
PROGRAM NowAndThen (input,output);

VAR
    CurrentNumber : Integer;
    IsCorrect: Boolean;
    AnswerSuggested: String[4];
    as_int: integer;
    as_errorcode: integer;

BEGIN
    CurrentNumber := 5;
    IsCorrect := true;
    AnswerSuggested := '';

    Writeln;

    IF (CurrentNumber mod 5 = 0)
        THEN Writeln('Computer Says: Now')
        ELSE Writeln('Computer Says:
                        ',CurrentNumber);

    CurrentNumber := CurrentNumber + 1;
    Write('Your turn: ');
    Readln(AnswerSuggested);
```

```

IF (CurrentNumber mod 5 = 0) THEN
BEGIN
    IF (AnswerSuggested = 'Now')
        THEN CurrentNumber := CurrentNumber + 1
        ELSE IsCorrect := false
END
ELSE
BEGIN
    Val(AnswerSuggested,as_int,as_errorcode);
    IF (as_int = CurrentNumber)
        THEN CurrentNumber := CurrentNumber + 1
        ELSE IsCorrect := false;
END

Writeln('Sorry, your last answer is
                                     incorrect.');
```

```

IF CurrentNumber > 25
    THEN Write('However well done!  ')
    ELSE Write('There is room for improvement.');
```

```

Writeln('We got to: ',CurrentNumber);

Readln(AnswerSuggested);

END.
```

C

... find the syntax and logic error(s) contained in the program below:

```
main()
{
    int CurrentNumber = 1;
    int IsCorrect = 0;
    char AnswerSuggested[4];

    while (IsCorrect == 1)
    {
        if(CurrentNumber % 5 == 0)
        {
            printf("Computer says: Now\n\n");
        }
        else
        {
            printf("Computer says:
                    ",CurrentNumber,"/n/n");
        }

        CurrentNumber = CurrentNumber + 1;
        printf("Your turn: ");
        scanf("%s",AnswerSuggested);

        if(CurrentNumber % 5 == 0)
        {
            if(AnswerSuggested == "Now")
            { CurrentNumber = CurrentNumber + 1; }
            else
            { IsCorrect = 0; }
        }
    }
}
```

```

else
{
    if((int) (AnswerSuggested) == CurrentNumber)
    {   CurrentNumber = CurrentNumber + 1;   }
    else
    {   IsCorrect = 0;   }
    }
    printf("\n\nf");
}

printf("Sorry, your last answer is
                                incorrect.\n");
if(CurrentNumber > 25)
{
    printf("Well done!  ");
}
else
{
    printf("There is room for improvement.  ");
}
printf("We got to: ",CurrentNumber,"\n");

scanf ("%s", AnswerSuggested);

}

```

JAVA

... find the logic error contained in the program below:

```
import java.util.Scanner;

public class NowNThen
{
    public static void main(String[] args)
    {
        int intCurrentNumber = 1;
        int intAnswerSuggested = 0;
        String strAnswerSuggested = "";
        boolean isCorrect = true;

        Scanner in = new Scanner(System.in);

        while(isCorrect)
        {
            if(intCurrentNumber % 5 == 0)
            { System.out.println(("Computer says:
                                " + intCurrentNumber; }
            else {System.out.println("Computer
                                says: Now"); }

            intCurrentNumber++;
            System.out.print("Your turn: ");
            strAnswerSuggested = in.nextLine();
        }
    }
}
```

```

try
{
    intAnswerSuggested =
        Integer.parseInt(strAnswerSuggested); }
catch (Exception e)
{
    intAnswerSuggested = 0; }

if(intCurrentNumber % 5 == 0)
{
    if(strAnswerSuggested.equals("Now"))
    {
        intCurrentNumber++; }
    else {isCorrect = false; }
}
else
{
    if(intAnswerSuggested ==
        intCurrentNumber) {
        intCurrentNumber++; }
    else { isCorrect = false; }
}

}

System.out.println("Sorry, your last answer
                    is incorrect.");
if(intCurrentNumber > 25) {
    System.out.print("However, well
                    done! "); }
else { System.out.print("There is room for
                    improvement. "); }
System.out.println("We got to: " +
                    (intCurrentNumber));
}
}

```

UPDATES

... and so I further challenge you:

Is it fair to say that the computer
will always be the winner of this game,
the outcome, it would seem,
would fairly much remain the same.

So how might we go about
stacking the odds more to our favour;
how might we alter the consistency
of the computer's programmed
behaviour?

-0-

The algorithm utilised and demonstrated
on the last several pages,
may not be the author's best, could well,
be improved upon in considered stages;

Maybe the loop, the if statements,
or maybe the program's flow;
contemplate an improved algorithm,
take up this challenge and give it a go...

-0-

The algorithm, with a focus on 5, and
not 7, remains somewhat incomplete;
the activity has this further layer,
a shortcoming that you could meet;

So if you feel you may be able,
and are keen to add some code;
i could leave this with you,
to take on this additional workload...

DETAIL

while i have presented
little more than anecdotal
info in this collection of
reflections, there are those
who have ardently researched,
written, and filled in the detail –
events, lives, innovations, ...

often connecting directly with
those that were there, working
within their respective teams.

some of these writings include:

The Dream Machine. J.C.R. Licklider and the Revolution That
Made Computing Personal
by M. Mitchell Waldrop

The Innovators
by Walter Isaacson

The Man Who Invented the Computer
by Jane Smiley

The History of the Fortran Programming Language
by Mark Jones Lorenzo

Everlasting Code – The Education of Grace Hopper and The History of Cobol

by Mark Jones Lorenzo

Endless Loop – The History of the BASIC Programming Language

by Mark Jones Lorenzo

Back to BASIC

by Dr John G. Kemeny & Dr Thomas E. Kurtz

CREATION MYTH - Xerox PARC, Apple, and the truth about innovation.

by Malcolm Gladwell (*Article from: 'the New Yorker, 2011*)

The Story of the Creation of the Atari Portfolio

by X86VET

Computer Chronicles Revisited – multiple articles

A review of the Computer Chronicles, PBS series that aired from 1983 to 2002

Witten by S.M. Oliva

www.smoliva.blog

Wikipedia – innumerable articles

WinWorld - winworldpc.com

Nathan's Toasty Technology page - toastytech.com

... plus many many other articles and YouTube videos...

A small selection from the many **YouTube Videos:**

IT & Software History - 1980's (...ish)

Creator: 'Another Boring Topic':

The Story of VisiCalc

https://www.youtube.com/watch?v=nDPD7U_M8yw

The Rise and Fall of the IBM PC Part 1

<https://www.youtube.com/watch?v=Er8wcWsG7sE>

The Rise and Fall of the IBM PC Part 2: Attack of the Cloners

<https://www.youtube.com/watch?v=A8ntDz4AU-c>

The Rise and Fall of the IBM PC Part 3: The Cloners Strike Back

https://www.youtube.com/watch?v=4II_GmHcj8A

The Fall of OS/2

<https://www.youtube.com/watch?v=rAMT187GWd4>

The Rise of Microsoft Windows Part 1 (1981-1985)

<https://www.youtube.com/watch?v=vqt94b8bNVc&t=2581s>

Steve Jobs and the Rise and Fall of NeXT Part 1

https://www.youtube.com/watch?v=lg6a_z41KPc

The Rise of Microsoft Excel Part 1

<https://www.youtube.com/watch?v=PI23HAEN63c>

Apple's Unknown Database: FileMaker Pro 2.1 (1993)
Unboxing and Review
<https://www.youtube.com/watch?v=wfwXnw9IhJQ>

Creator: Modern Classic
The IBM PC 5150 - the world's most influential computer
<https://www.youtube.com/watch?v=0PceJO3CAGI>

Early Computing History

Creator: DigitalArchaeology
Alan Kay - ARPA / Xerox PARC culture
https://www.youtube.com/watch?v=wdHtYW_wcAs

Creator: SRI International
1968 “Mother of All Demos” by SRI’ s Doug Engelbart
and Team
<https://www.youtube.com/watch?v=B6rKUf9DWRI>

Creator: Dartmouth
Birth of BASIC
<https://www.youtube.com/watch?v=WYPNjSoDrqw>

The Computer and the Campus: An interview with John
Kemeny
<https://www.youtube.com/watch?v=HHi3VFOL-AI>

Creator: Computer History Museum
Secret History of Silicon Valley
https://www.youtube.com/watch?v=ZTC_RxWN_xo

Palmtops/Handheld Computers / PDAs:

Creator: The 8-Bit Guy
Pocket Computers from the 1980s
<https://www.youtube.com/watch?v=d3NIe1jTZMc>

Creator: LGR (Lazy Game Reviews)
Atari Portfolio - The \$400 Palmtop PC from 1989
https://www.youtube.com/watch?v=rQwJk8E_xKE

IBM WorkPad 20X: The 1998 Palm PDA Experience
https://www.youtube.com/watch?v=_IYoVXMgRiQ

Creator: Martin Reid
PSION PC-FOUR a 1980's IBM PC DOS based 'office' software.
<https://www.youtube.com/watch?v=jGIsPke4m-4>

Creator: Dave Hulme
Old tech - Sharp ZQ-770 Oragniser, Acer PDA and more
<https://www.youtube.com/watch?v=dwbHdHgQrMY>

Creator: This Does Not Compute
Atari Portfolio: No Ordinary Electronic Organizer
<https://www.youtube.com/watch?v=NoI9EKRioHc>

Programming

Creator: Fireship

FORTTRAN in 100 Seconds

<https://www.youtube.com/watch?v=NMWzgy8FsKs>

COBOL in 100 seconds

<https://www.youtube.com/watch?v=7d7-etf-wNI>

Pascal in 100 Seconds

<https://www.youtube.com/watch?v=K9mzg8ueiYA>

C in 100 Seconds

<https://www.youtube.com/watch?v=U3aXWizDbQ4>

C++ in 100 Seconds

<https://www.youtube.com/watch?v=MNeX4EGtR5Y>

C# in 100 Seconds

<https://www.youtube.com/watch?v=ravLFzIguCM>

Java in 100 Seconds

<https://www.youtube.com/watch?v=l9AzO1FMgM8>

Python in 100 Seconds

https://www.youtube.com/watch?v=x7X9w_GIm1s

JavaScript in 100 Seconds

<https://www.youtube.com/watch?v=l9AzO1FMgM8>

plus others...

Other

The 8-Bit Guy

108 Rare and Bizarre Media Types

<https://www.youtube.com/watch?v=AvXXkB2jic0>

The Centre for Computing History

Colossus - The Greatest Secret in the History of Computing

<https://www.youtube.com/watch?v=g2tMcMQqSbA>

The History Guy

The Most Important Invention of the 20th Century:

Transistors

<https://www.youtube.com/watch?v=OuFlISa73Sw>

YOURS

note...

i've left the following pages blank
intentionally left blank

for your IT reflections
your IT experiences
your approaches
your thoughts
your dreams
your aspirations
your poems...

(Intentionally left blank)

(Intentionally left blank)

(Intentionally left blank)