

Four Pillars of Sustainable IT

<http://makingsoftwaregreener.com>



kelly@makingsoftwaregreener.com

What is Sustainable IT?

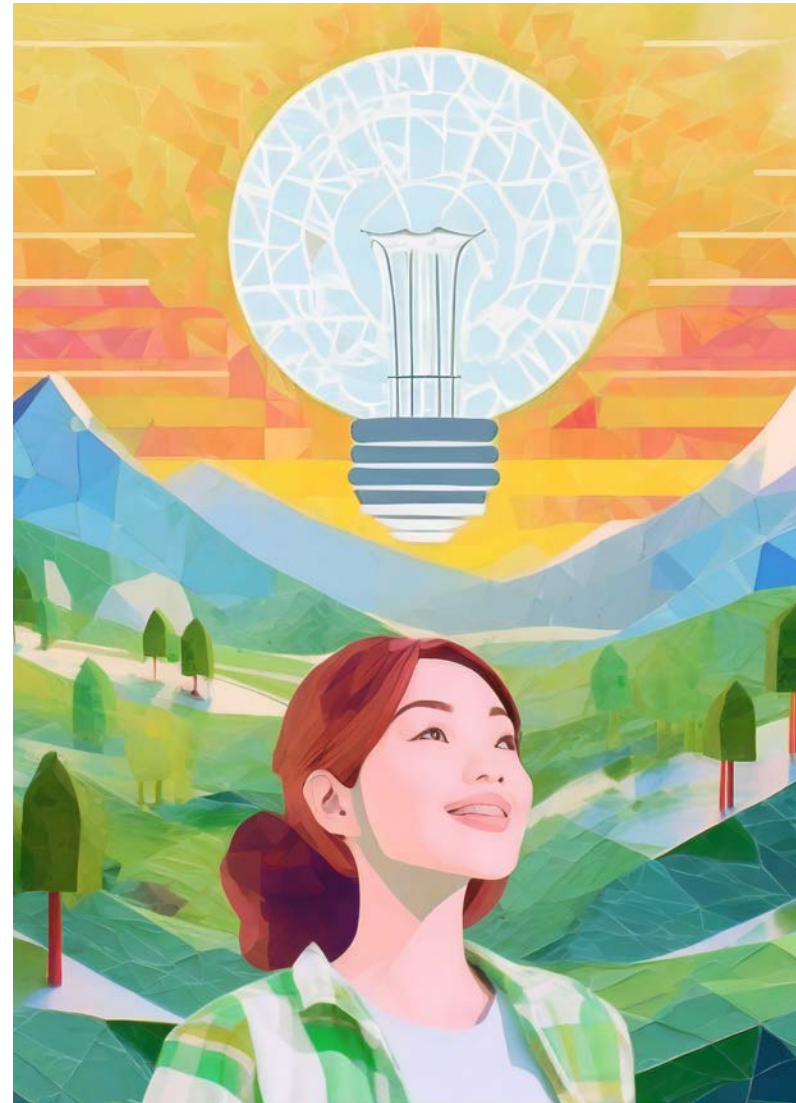
<http://makingsoftwaregreener.com>



kelly@makingsoftwaregreener.com



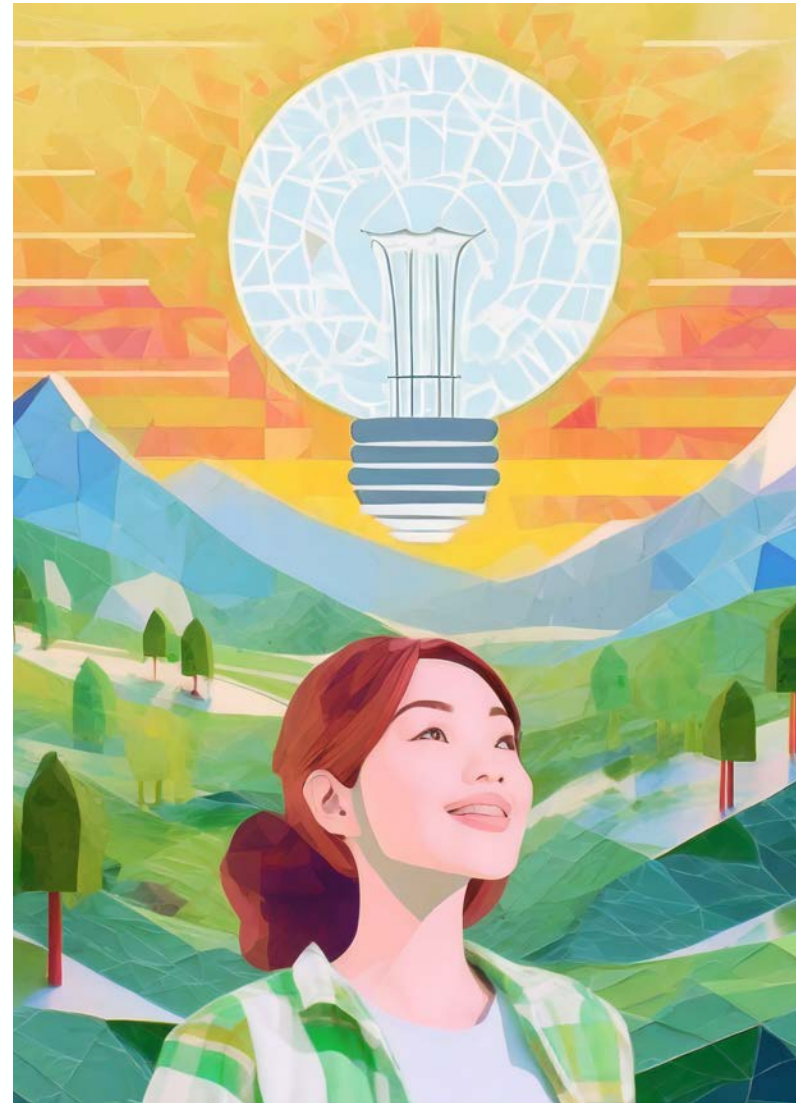
Awareness



Awareness

In 2020, Information and Communications Technology accounted for 3.5% of the total carbon footprint of the planet.

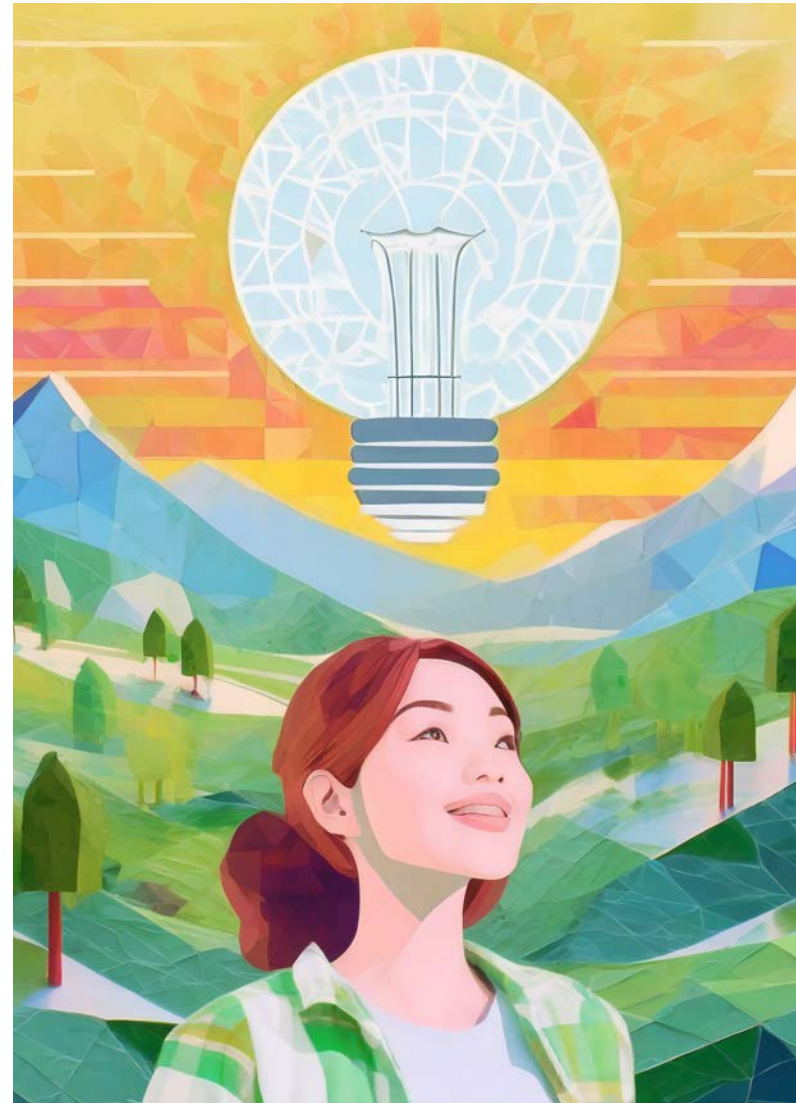
How smartphones are heating up the planet



Awareness

By 2040, Information and Communications Technology will account for 14% of the total carbon footprint of the planet.

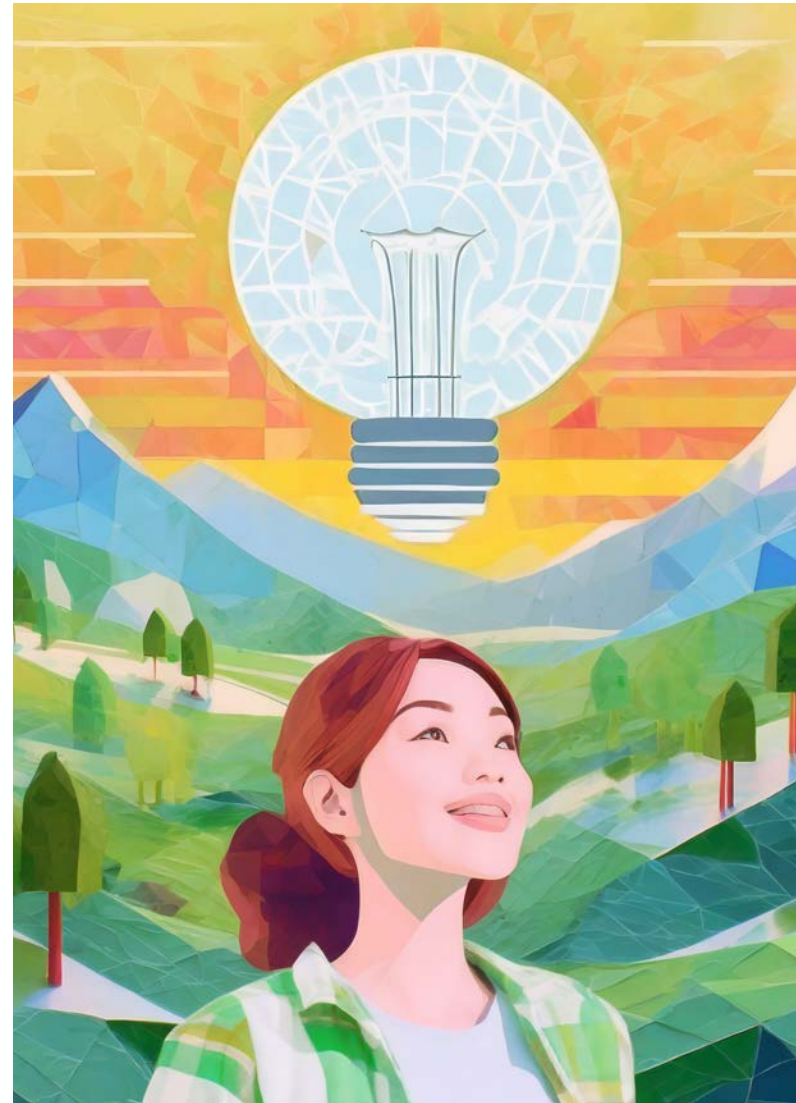
How Green Is Your Software?



Awareness

**A 2kg laptop
requires 400kg in
raw resources**

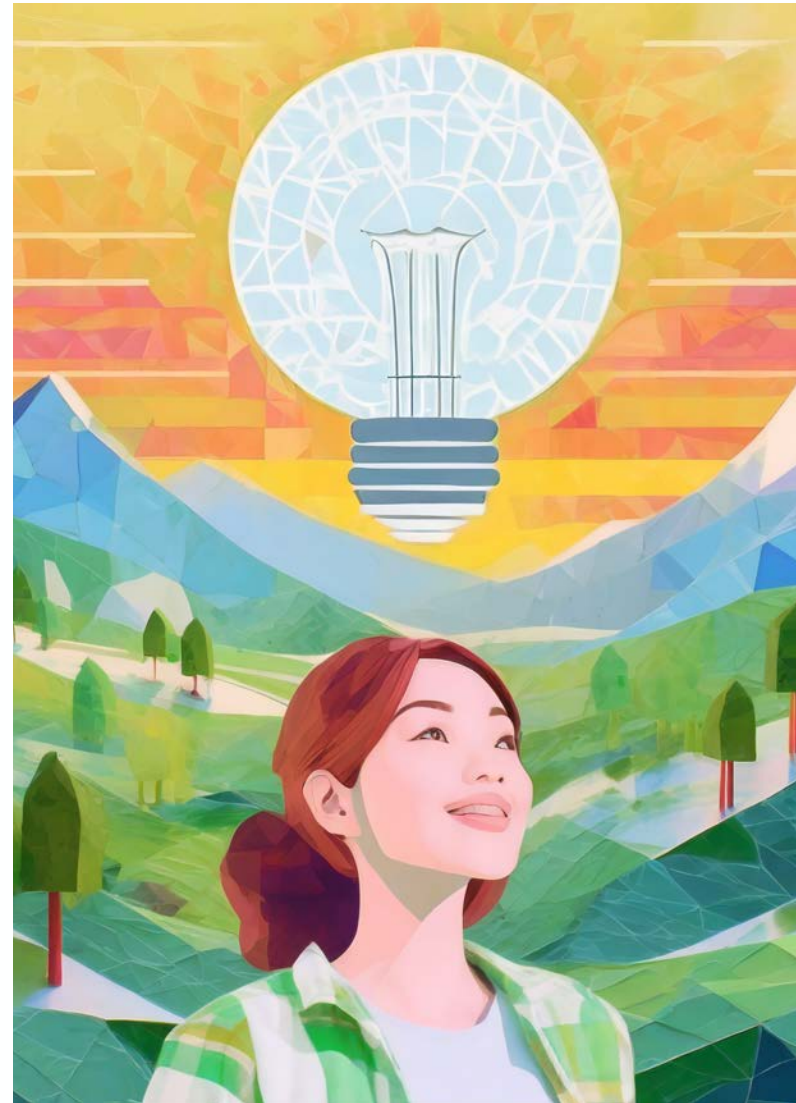
The Digital Collage - A
workshop to understand the
impact of digital technologies
on the environment



Awareness

Microsoft's global water consumption increased 34% between 2021 to 2022 to nearly 1.7 billion gallons

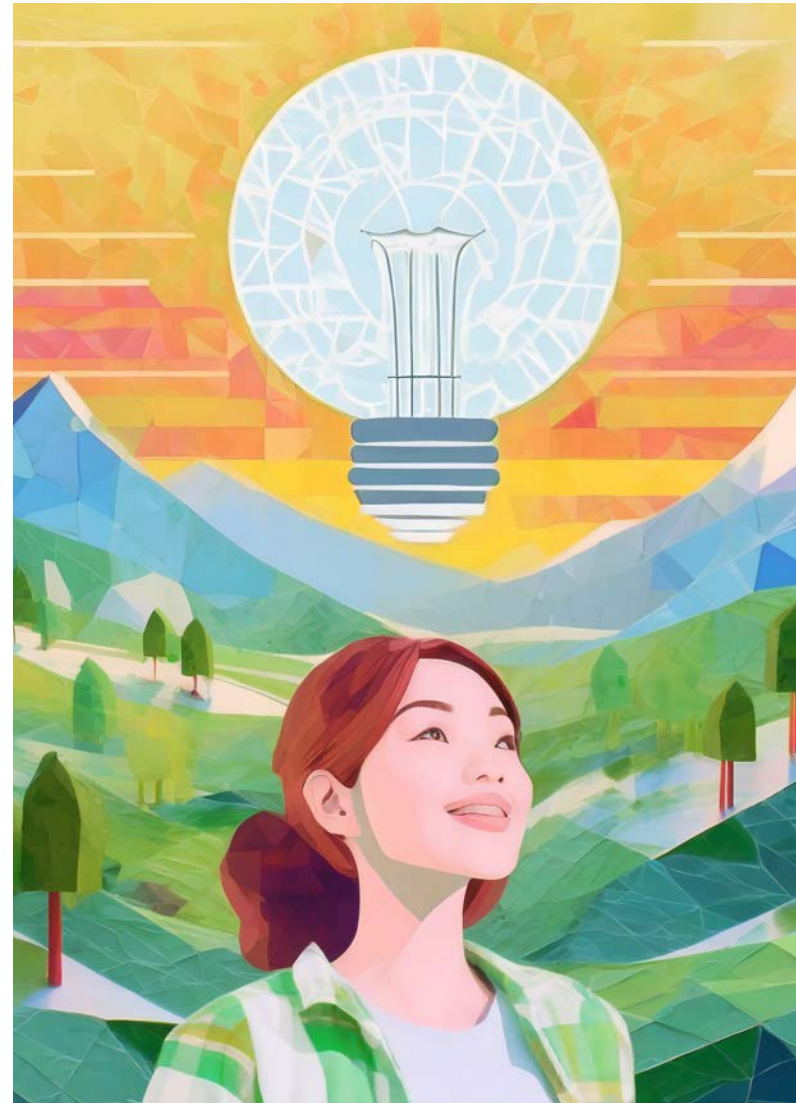
A.I. usage fuels spike in Microsoft's water consumption



Awareness

**ChatGPT uses 16oz
water for each 5-50
questions**

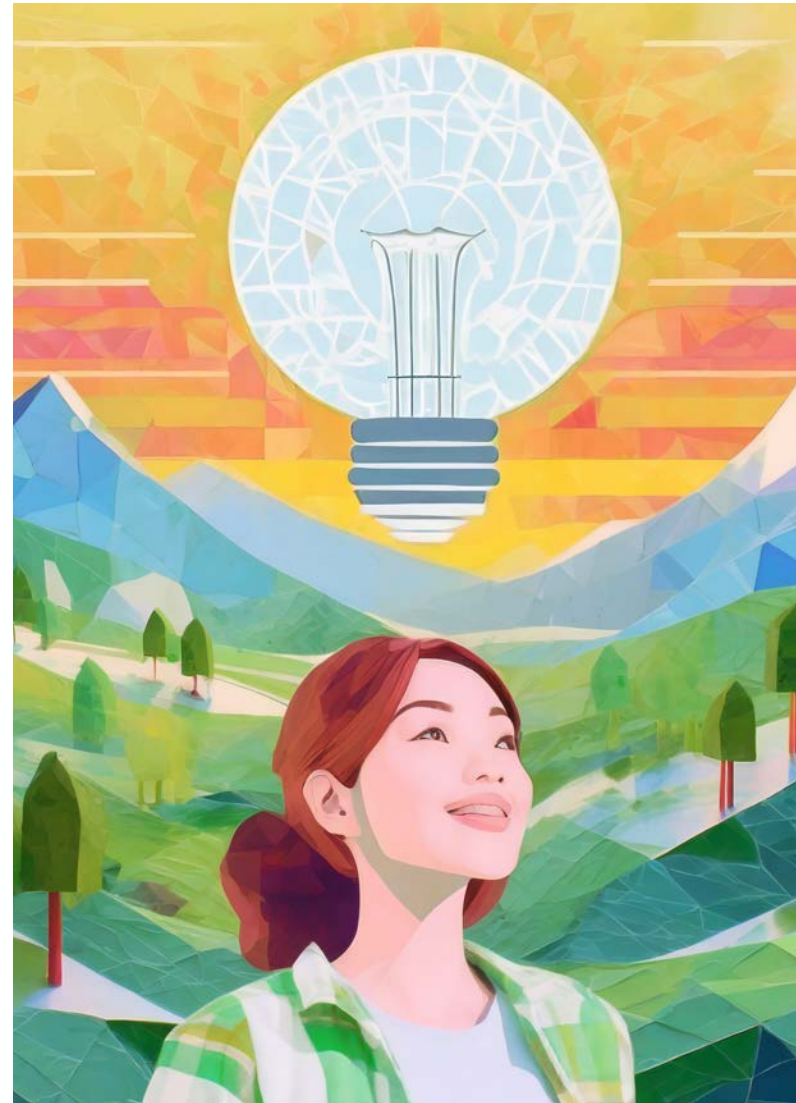
A.I. usage fuels spike in
Microsoft's water consumption



Awareness

**1.13 billion
smartphones were
shipped in 2023.**

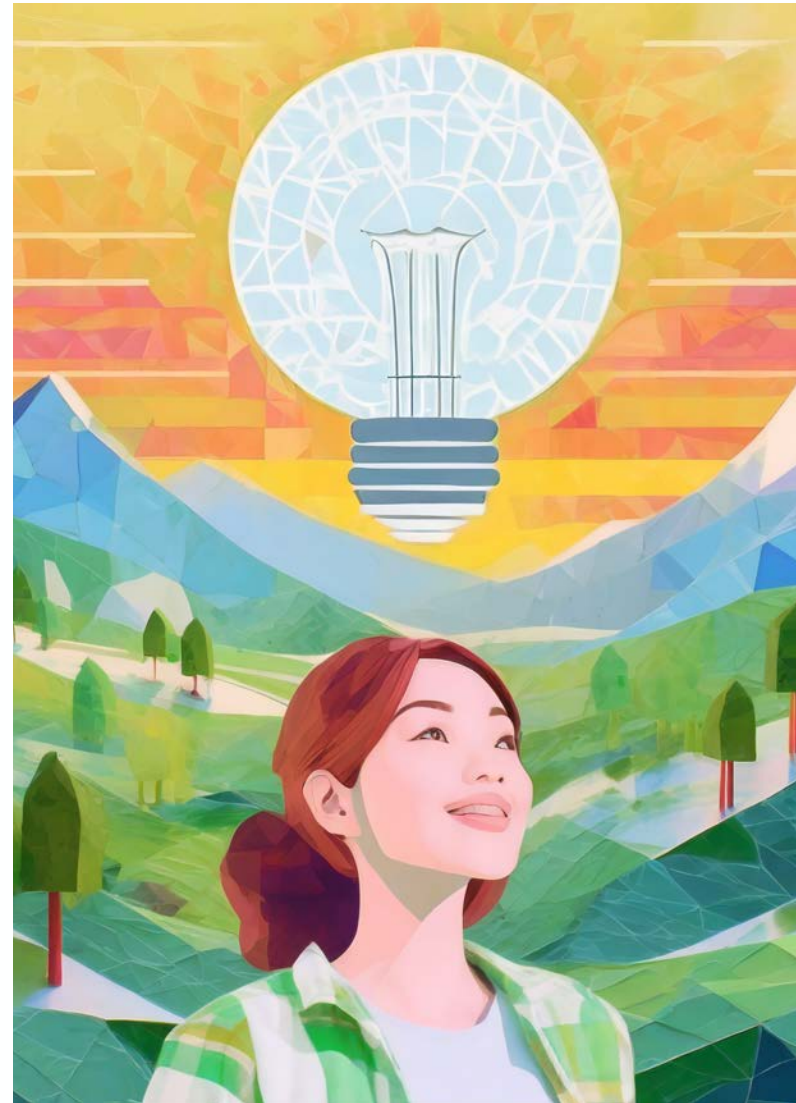
2024 smartphone market
rebound: What's driving the
change



Awareness

There are ~5.4 billion internet users in 2023, a 45% increase since 2018.

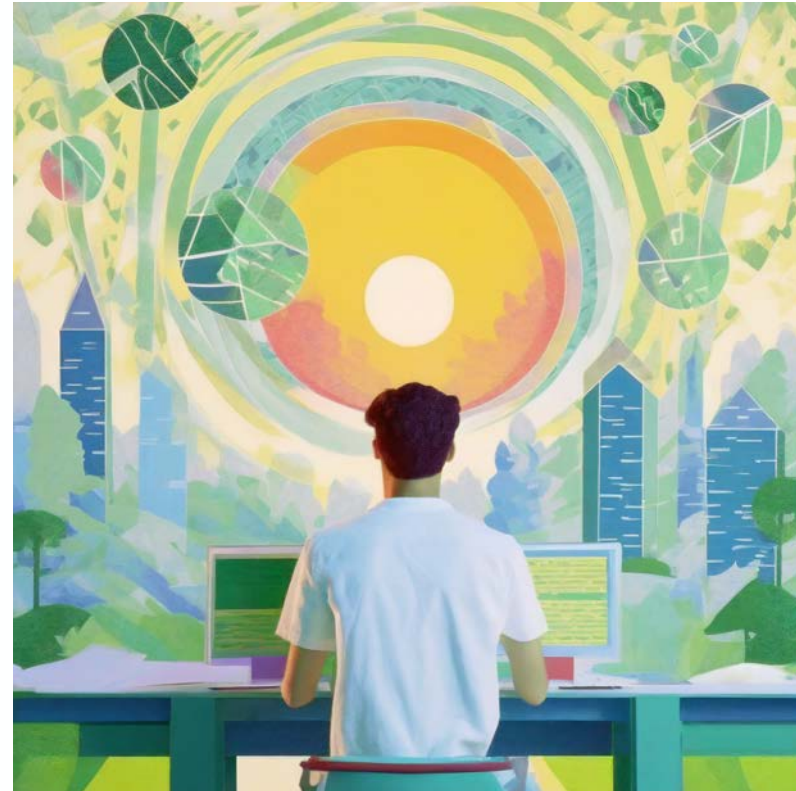
ITU Statistics



Consciousness



Enablement



Empowerment



Sustainable IT Manifesto

<http://SustainableITManifesto.org>



<http://makingsoftwaregreener.com>



kelly@makingsoftwaregreener.com

Sustainable IT Manifesto

**Energy Efficiency
over Raw
Performance**



Sustainable IT Manifesto

**Resource Efficiency
over Resource
Abundance**



Sustainable IT Manifesto

**Long-term
Sustainability over
Short-term Gains**



Sustainable IT Manifesto

**Holistic Impact
Awareness over
Siloed Focus**



Sustainable IT Manifesto

**Return to
Environment over
Return on
Investment**



Sustainable IT Manifesto

**Inclusive
Collaboration over
Isolated Decision
Making**



Sustainable IT Manifesto

**Adaptive Planning
over Fixed
Roadmaps**



Sustainable IT Manifesto

**Transparent
Reporting over
Selective Disclosure**



Sustainable IT Manifesto

**Continuous
Environmental
Learning over Static
Knowledge**



Sustainable IT Manifesto

**Community and
Ecosystem
Wellbeing over
Individual Benefits**



Sustainable IT Manifesto

**Eco-friendly
Materials over Cheap
Alternatives**



Sustainable IT Manifesto

**Device Longevity
over Planned
Obsolescence**



Principle	Column(s)
Energy Efficiency over Raw Performance	Consciousness, Enablement
Resource Efficiency over Resource Abundance	Consciousness, Enablement
Long-term Sustainability over Short-term Gains	Awareness, Empowerment
Holistic Impact Awareness over Siloed Focus	Awareness, Consciousness
Return to Environment over Return on Investment	Consciousness, Empowerment
Inclusive Collaboration over Isolated Decision	Empowerment, Enablement
Adaptive Planning over Fixed Roadmaps	Enablement, Empowerment
Transparent Reporting over Selective Disclosure	Awareness, Consciousness
Continuous Environmental Learning over Static	Awareness, Consciousness, Enablement
Community and Ecosystem Wellbeing	Awareness, Empowerment
Eco-friendly Materials over Cheap Alternatives	Consciousness, Enablement
Device Longevity over Planned Obsolescence	Enablement, Empowerment





<http://makingsoftwaregreener.com>



kelly@makingsoftwaregreener.com

Other Resources

- [Green Computing Foundation](#)
- [Green Software Foundation](#)
- [SustainableIT.org](#)
- [The Sustainable IT Manifesto](#)
- [Making Software Greener](#)



Slides Available

<https://github.com/making-software-greener/4pillars/>

