Introduction
Information and Communications Technology (ICT) has become a central part of modern life. It has transformed the way that information is shaped, accessed and distributed. Information and communications technologies have both changed the way we communicate with each other and the way we get jobs done.
These changes have provided great opportunities for enhancing knowledge and democratic processes, as well as improving resource use and productivity. But new technological innovation has also created problems by reinforcing existing social and political inequalities, and in some cases creating new ones. ICT has also contributed to the increasing commercialisation of our lives and more waste for our environment to contend with.

Definitions

**Common Carriers**: An organisation that transports a product or service using its facilities, or those of other carriers, and offers its services to the general public. Generally common carriers are not responsible for what they carry.

**Digital Divide**: Disparities between people arising from lack of access to electronic technologies due to any number of reasons such as skills, geographic remoteness, financial situation, or disability.

**Free and Open-Source Software (FOSS)**: Free software is defined by whether or not you have the freedoms to: i) run the program, for any purpose; ii) study how the program works, and adapt it to your needs; iii) redistribute copies so you can help your neighbour; and iv) improve the program, and release your improvements to the public, so that the whole community benefits.

Open source describes practices in production and development that promote access to the end product’s source materials, typically their source code.

**Open formats**: Formats that are described with freely available specifications, defined by an open standard.

Vision
The Green Party envisions a Aotearoa New Zealand in which Information and Communications Technology:
• Improves our democratic processes through wide access to information.
• Contributes to our personal, educational, professional, community and corporate relationships by facilitating communication and learning.
• Sustainably increases productivity and efficiencies in our industries and businesses.
• Decreases resource use through appropriate application of technologies.

**Key Principles**

1. ICT should be used to significantly enhance productivity and reduce resource use through telecommuting, virtual mobility and better design.
2. The opportunities that ICT provides to share important information within the public domain should be taken so the public will have a greater chance to participate in decision making in an informed manner (appropriate decision making).
3. The opportunities afforded by ICT should be accessible to all.
4. Development of ICT must proceed in a socially responsible and sustainable manner.
5. Benefits of ICT need to be shared amongst all members of our society and not be used to enhance or entrench existing inequalities, or create new layers of inequality.
6. The use of Free and Open Source software should be encouraged, where practical, as a means of encouraging appropriate technology and indigenous solutions to local problems.

**Specific Policies**

1. **Equity and Access**

Our world is increasingly conducted online; from entertainment, to business to engaging with Government departments. In Aotearoa New Zealand there is a digital divide between those who have access to the Internet and digital tools and those who do not.

All citizens and groups should be able to access ICT. If sections of the community are excluded from ICT and the competencies associated with it, they will be excluded economically, socially, and politically.

Increasingly there is important information which is primarily, if not solely, made available on the Internet. In order to reduce barriers to access, the Green Party will:

1.1 Develop a nationwide digital divide strategy that aims to increase online access.

1.2 Improve public access to ICT by supporting the establishment of community technology hubs in schools, tertiary institutions, public libraries and other community centres, including free Internet access of a reasonable quality.
1.3 Support training opportunities for individuals, community groups and businesses to make best use of ICT.

1.4 Investigate the feasibility of council-owned free wireless Internet systems along the lines of those already operating in some cities in the US.

1.5 Ensure that all government websites are accessible to people with disabilities by increasing website standardisation and supporting development of hardware and software programs that assist those with disabilities.

1.6 Work towards providing up-to-date information on government websites in both Te Reo Māori and English, and ensuring all communities can access government information regardless of language or other barriers.

1.7 Set standards for world-class high-speed Internet access which we will aim to provide at reasonable cost to every community in Aotearoa New Zealand.

1.8 Investigate ensuring free wireless internet access on public transport in metropolitan centres.

1.9 Ensure that public buildings and spaces do not become sites for the marketing and commercialisation of ICT products or services.

**A. Government Databases**

The government has extensive databases of publicly owned information that is accessible online. The government charges fees for access to this information, which creates barriers and limits access.

The Green Party will:

1.10 Ensure that all government databases suitable for release into the public domain are made freely available (or available at a reasonable cost).

1.11 Ensure that information that cannot be made available (because of privacy or commercial sensitivity) is made available in aggregate form, omitting individual information.

1.12 Ensure, where possible, that information is made available in open, accessible, low bandwidth formats.

2. **Initiatives to encourage sector growth**

The Green Party sees huge growth potential in the ICT sector and will:

2.1 Encourage initiatives that promote competition and network resilience in the provision of internet services.

2.2 Support visits to export markets to facilitate media exposure of our successes and to influence foreign companies to work with our businesses.

2.3 Establish a Aotearoa New Zealand centre of excellence in key ICT nodes overseas and support promising Aotearoa New Zealand developers to visit key ICT clusters overseas and gain experience there.

2.4 Include ICT in our apprenticeship scheme and encourage IT companies to develop their own apprenticeship/internship schemes, investing in staff development at home rather than buying it from overseas.

2.5 Develop and support IT clusters to assist the growth of new IT enterprises.
2.6 Ensure the Ministry of Business, Innovation, and Employment undertakes research and provides policy advice to the government and government departments about ICT issues.

**A. Software Business Development**

Locally developed software solutions can be more responsive to Aotearoa New Zealand’s own specific needs, and could provide employment opportunities to those with technical knowledge and creativity.

In order to facilitate the development of this industry, the taxation and regulatory environments need to be aligned with the needs of software businesses. In addition, the government as a large purchaser of ICT services, should support the development of our industry by purchasing locally produced products where possible. See also our Sustainable Business, Trade and Foreign Investment and Economic policies.

The Green Party supports:

2.7 The development of independent software ventures in Aotearoa New Zealand, to encourage the development of the industry.

2.8 Government and industry working together to:
   a) Develop a strategy to enhance the availability of venture and seed capital for local commercial software companies.
   b) Develop a Research and Design industry that appeals to New Zealanders who are completing tertiary study. This is a way of keeping our graduates here to help build our capacities.
   c) Promote real solutions to online infringing based on legal alternatives and new business models not simply a punitive, corporate incumbent protection.

2.9 Preferred status for locally developed commercial software products and services, which will ensure that the government purchases these products wherever possible.

2.10 The incubation of Aotearoa New Zealand’s creative edge and ingenuity in software development (particularly application development) – especially where this reflects our most successful industries (ie agriculture) or our recent experience (ie emergency management).

2.11 Growth in the software, applications and games industries, through tech-clusters, R&D and educational initiatives.

**B. Government procurement**

Government agencies can be required to measure how much ICT spending is going to NZ companies. Without measuring there is no awareness. It can look at the full costs of procuring, including the gains to the Aotearoa New Zealand economy that come with Aotearoa New Zealand procurement. This provides the customer base for NZ ICT companies which can then be used to project overseas.

If the Government uses open source procurement Aotearoa New Zealand providers have a chance to bid for the relevant work. It also means that Aotearoa New Zealand based software developers can develop skills and software which can be used overseas. Once Aotearoa New Zealand developers have demonstrated proficiency on
open source platforms in Aotearoa New Zealand they can sell their services overseas. It also provides a career path for local programmers who otherwise would have to head overseas. The Green party will:

2.12 Require government agencies to consider the wider economic benefits to Aotearoa New Zealand of supporting the local ICT industry when making purchasing decisions.

3. **Ownership of Aotearoa New Zealand's ICT Infrastructure**

3.1 There is a danger in allowing critical parts of Aotearoa New Zealand's ICT infrastructure to be controlled by foreign corporations with divided loyalties, which may have obligations under foreign laws to hand over personal information requested by foreign governments. There is a potential for Aotearoa New Zealand and foreign laws to come into conflict and create a security issue for New Zealanders. To avoid this situation, the Green Party will:

3.2 Work to ensure that our information systems are developed and maintained by local (Aotearoa New Zealand) companies.

3.3 Limit foreign ownership of telecommunications infrastructure.

4. **ICT Obligations and Protocols for State and Industry**

A. **ICT Risk**

The Green Party acknowledges that there are safety issues relating to inadequate oversight of ICT infrastructure.

In order to ensure that human safety and the safety of crucial democratic processes such as voting in elections is not jeopardised by computer failure, the Green Party will:

4.1 Encourage public scrutiny of any ICT system that is responsible for the safety of human life (e.g. transportation), or is responsible for crucial democratic processes such as electronic voting in elections.

4.2 Support the development of a system of professional registration for ICT personnel working on safety critical applications.

B. **ICT Security**

An acceptable level of ICT security will require the government, the ICT industry, and ICT users to work cooperatively on security issues and in developing solutions.

The government should play a role in maintaining ICT security through regulation and education.

The ICT industry has a role in protecting ICT users’ right to privacy and security. Vendors of ICT equipment have a duty to ensure that users are aware of the level of security they can expect and to inform them if this changes.

The Green Party will:

4.3 Promote collaboration and provide opportunities for enhanced communication between the government, the ICT sector, and ICT users.

4.4 Review software used in the state sector, on an ongoing basis, for security issues.
4.5 Tighten legislation on the circumvention of lawful security measures with the intention of performing an illegal act.

4.6 Develop regulations requiring ICT vendors to disclose security weaknesses in their products in a timely manner so users can take remedial action.

4.7 Prohibit vendors of ICT security services/products from knowingly allowing their services/products to be circumvented.

C. Digital Rights
The Green Party supports net neutrality for a free, open, and unrestricted Internet. We believe that everyone has the right to access Internet services without discrimination. Lines companies that carry Internet signals must not play favourites with users accessing their lines. ISPs who deliver the signals must not apply traffic control or traffic prioritisations to discourage use of a competitor service, or to encourage use of a partnered service. We further believe that no ISP should be able to restrict or deny the interoperability or interconnection of a device or network to the Internet, unless authorised by law.

The Green Party will:

4.8 Support legislation and government policies that:
   a) Ensure internet rights such as net neutrality, data access, and disconnection rights.
   b) Increase the reliability of the Internet.

D. Internet Content Management
A number of actors are to be crucial in developing policies and protocols around digital rights and Internet content management. The government needs to develop copyright law that is responsive to the realities of new ICT and digitalisation, with the public interest in information flow in mind. The government has a responsibility to ensure that copyright law is consistent across mediums and to accommodate the different technologies and the unique challenges and circumstances for administering policy in these areas that these differences provide.

As common carriers, ISPs should not be made responsible for content that passes through their networks, or for material on web sites which they host. When society wants to regulate the communication of information, the authors of the material need to be responsible for content, rather than ISPs.

ICT manufacturers do not have the absolute right to enforce copyright protection via technological means (e.g. DVD Zoning, CD crippling). Manufacturers should have the right to introduce 'Meta Information' into digital works for the purposes of identifying those works.

The Green Party will ensure that:

4.9 Copyright, as defined in Intellectual Property (IP) law, applies to digital works.

4.10 Aotearoa New Zealand's copyright protection should make exceptions for processes that are unique to digital works, so that technologies such as a) caching digital works on Internet servers to economise on bandwidth, or b) hyper-linking to material are not deemed as copying.
4.11 Copyright protection should extend to all communicated works, but not the signals that carry them.

4.12 The right of consumers who have lawfully obtained copyrighted works to make copies for their own lawful use is protected.

4.13 The rights of consumers are not circumvented by manufacturers of media or media players that function to restrict consumers’ rights.

4.14 The removal of identifying data, and distribution of altered digital work is prohibited.

4.15 The right to de-compilation and error correction is protected.

4.16 ISPs and hosts are not liable for any intellectual property or copyright infringing material stored or cached on their networks or web space. ISPs should not remove or disable access to any copyright infringing material unless they have been specifically ordered to by a court of law.

4.17 ISPs are not liable for anything that their customers do or transmit via the Internet service they provide.

4.18 ISPs must, within the constraints of legal requirements, provide a censorship free service for users who do not want any form of censorship.

E. Free Open-Source Software (FOSS)
The current market in computer software is dominated by a very small group of very large companies and many sectors of the market have been operating as monopolies. Free Open Source Software (FOSS) offers a viable alternative to closed source propriety software. Utilising FOSS will help develop the ICT sector because it will create demand for a local support industry with all the inherent advantages: jobs, local experience and expertise.

There can be some higher costs with FOSS, but these are more than offset by the license savings from using FOSS. The Green Party recognises that FOSS cannot supply all software requirements of all organisations and that the introduction of new software into workplaces needs to be carefully done to avoid disruption.

The Green Party will:

4.19 Require government agencies to use open standards for new projects and to consider the use of Free and Open-Source Software during government procurement where practical.

4.20 Move towards open format standard/open document standard for government office documents and databases.

5. Privacy

ICT makes the storage and correlation of personal data much more prevalent than it has been in the past. The nature of the technology means that it is easy to gather and use information of all sorts, including accurate and inaccurate information. Once information is placed in a database it can last there indefinitely. This information should be collected, stored, and treated ethically, and access to this information by New Zealanders is paramount.

The Green Party will:
5.1 Scrutinise closely any information sharing between different state databases, and oppose those that are unwarranted.

5.2 Improve the public's access to official information and ensure that there are effective reviews in place for those who do not receive the requested information or consider that information held about them is incorrect (see our Democracy and Constitutional Transformation policy).

5.3 Support amending the New Zealand Bill of Rights Act 1990 to specifically include a right to privacy.

5.4 Review controls on the sale of private information, and the exchange of information between government agencies, to ensure consistency with the aims of the Privacy Act.

5.5 Promote and publicise the right of people to see the personal information held on them in state and other databases and to correct such information.

5.6 Ensure that personal information that is held by public sector agencies concerning Aotearoa New Zealand citizens is the responsibility of Aotearoa New Zealand organisations.

6. **6. ICT and Worker Issues**

The increasing use of ICT has enabled businesses to utilise different workforces at different stages of the production chain more efficiently and flexibly. These changes can improve business' productivity, but can also affect workers' rights, health, existing protections and livelihood. In particular, the ICT workforce is especially susceptible to pressures for efficiency and flexibility. There are known, and possibly unknown, health issues associated with ICT use. Also rapid changes in technology can make ICT workers' skills obsolete.

The Green Party will ensure that:

- **6.1** The introduction of new ICT into workplaces is accompanied by retraining and that effective steps are taken to minimise disruption to people’s working lives.

- **6.2** The health of all workers is monitored for known harms of ICT and those harms are mitigated.

- **6.3** Possible harms are researched prior to the introduction of ICT and evaluated formatively (with the introduction of new technologies, proper care must be taken to identify and mitigate any associated negative health effects).

7. **ICT and Education**

The Green Party supports the use of ICT in education where it is appropriate. A better understanding and use of ICT in schools needs to be established urgently. ICT is not an educational solution in itself and poor learning plus expensive ICT will result in expensive poor learning. The Green Party would like to see ICT in education enhance learners research skills and abilities, provide timely access to knowledge resources, provide innovative styles of learning, and assist learners to develop technological literacy, and explore their creativity.
The Green Party will:

7.1 Support the balanced use of ICT in education, as a means of enhancing access and fostering technological literacy, critically evaluating and using technology, and providing hands-on experience for students interested in gaining technology-focused employment.

7.2 Encourage the development of educational ICT service providers.

7.3 Support the further development of distance learning through ICT without sacrificing face-to-face contact with instructors, tutors, and students.

7.4 Ensure ICT use in schools does not compromise teacher and student health.

Schools face competitive and financial pressures in providing appropriate technology for learners, and we support the use of open and transparent tender processes where public money is involved.

The Green Party will:

7.5 Ensure the Ministry of Education takes a proactive role in negotiations with technology companies to provide ICT products and services that work best for learners and their communities, and to ensure schools do not become sites for the marketing and commercialisation of learning products.

7.6 Ensure that the Ministry of Education promotes the use and benefits of Free Open-Source Software in schools.