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Promoting a Culture of Cybersecurity
New Zealand Case Study

ITU Regional Cybersecurity Forum for Asia-Pacific 2008

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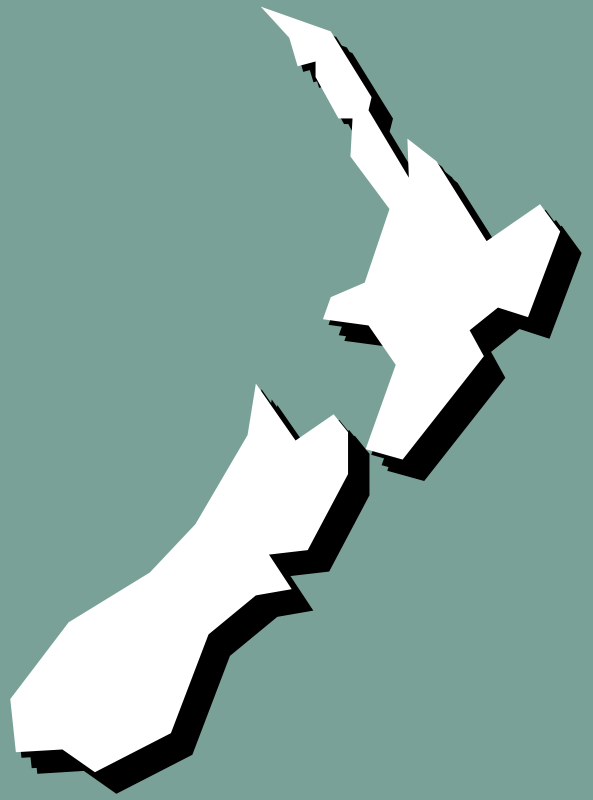
New Zealand in Context

- Pop 4.2 million
- Parliamentary Democracy
- Literacy Rate 99%
- Nation of small businesses
- 16.5 broadband subscribers per 100 inhabitants
- Jack of all trades



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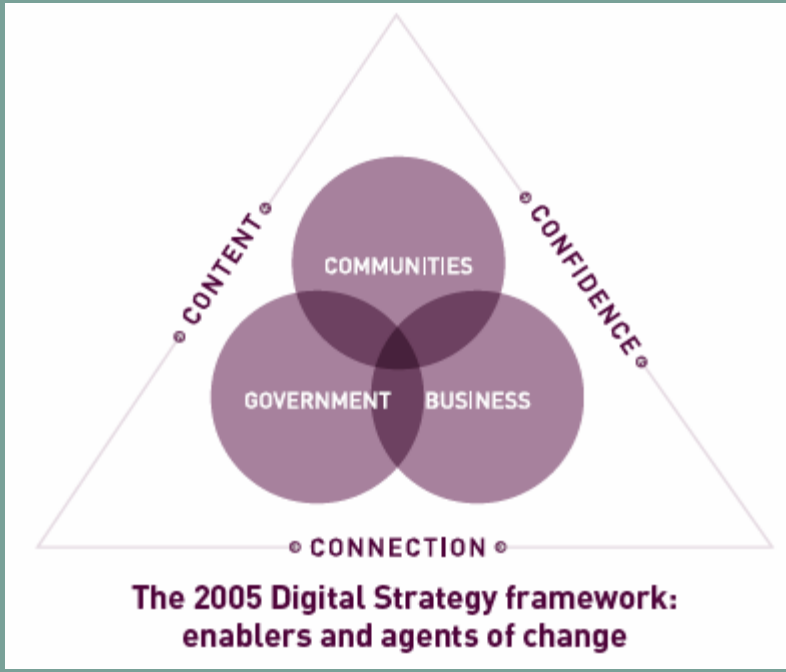
Digital Strategy



The 2005 Digital Strategy framework:
enablers and agents of change

The Draft Digital Strategy 2.0
Ministry of Economic Development

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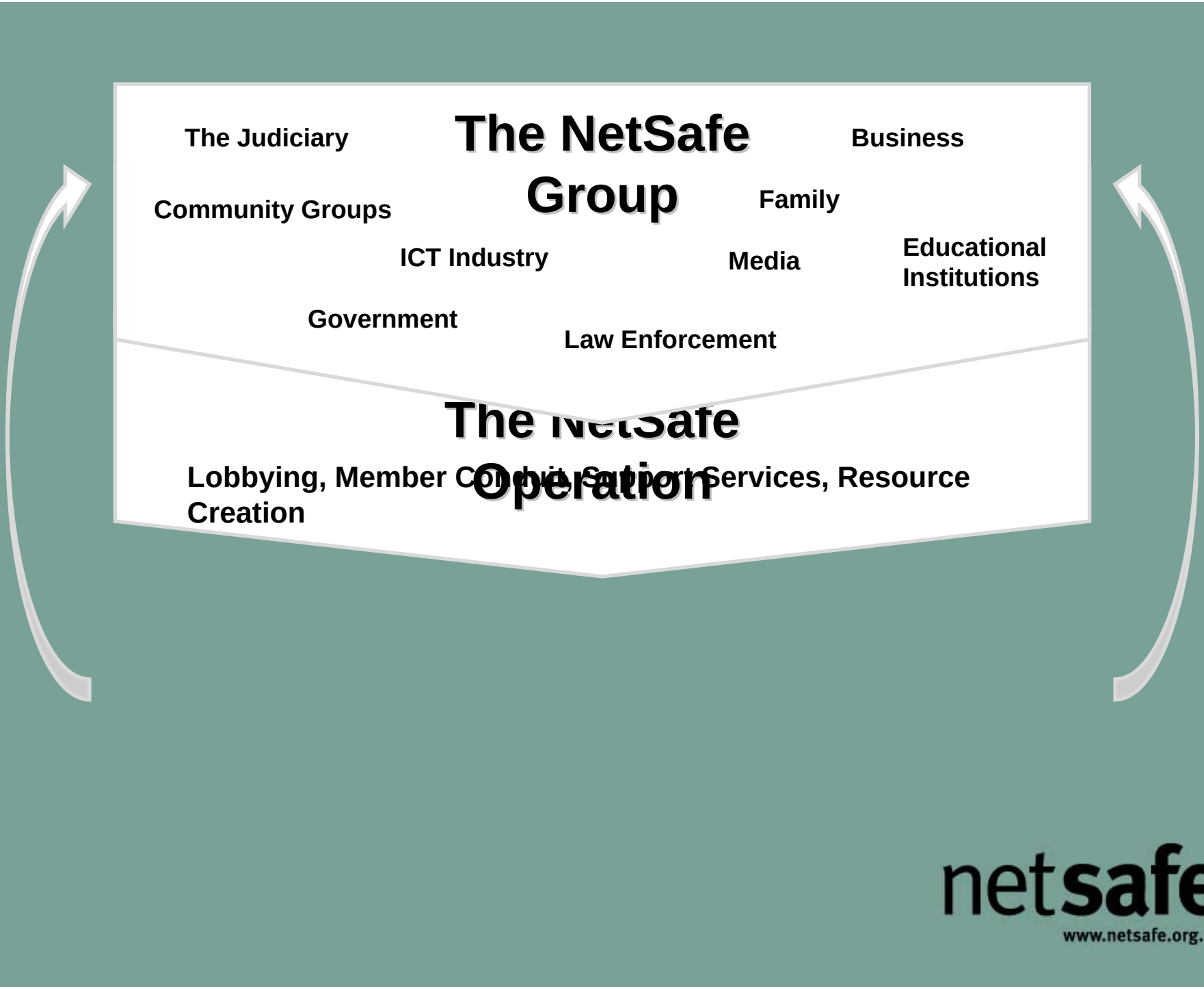

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Achieving a Cybersecurity Culture

V.B.1. Cybersecurity plan for government-operated systems

V.B.2. Security awareness programmes for users of systems and networks

V.B.3. Encourage a culture of security in business enterprises

V.B.4. Attention to the needs of children and individuals

V.B.5. National awareness program

V.B.6. Enhance science and technology, and R&D activities

V.B.7. Review privacy regime to include online environment

V.B.8. Develop awareness of cyber risks and available solutions

Provide budget support

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BUSINESS SECURITY CULTURE

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SME Toolkit

- Self assessment process leading to:
  - Policy framework
  - Training plan framework
- Community space(s)
- Self paced training course

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CHILDREN AND INDIVIDUALS

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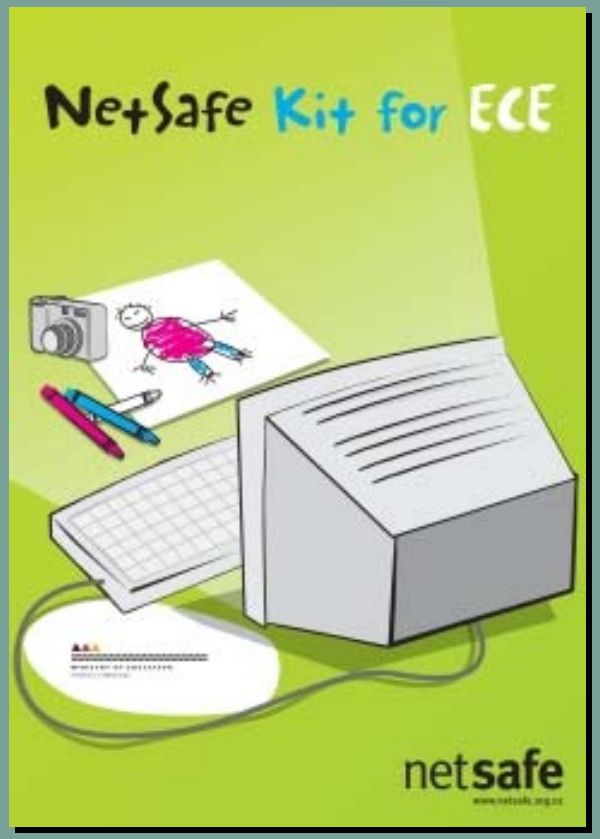
Cybersafety Programmes



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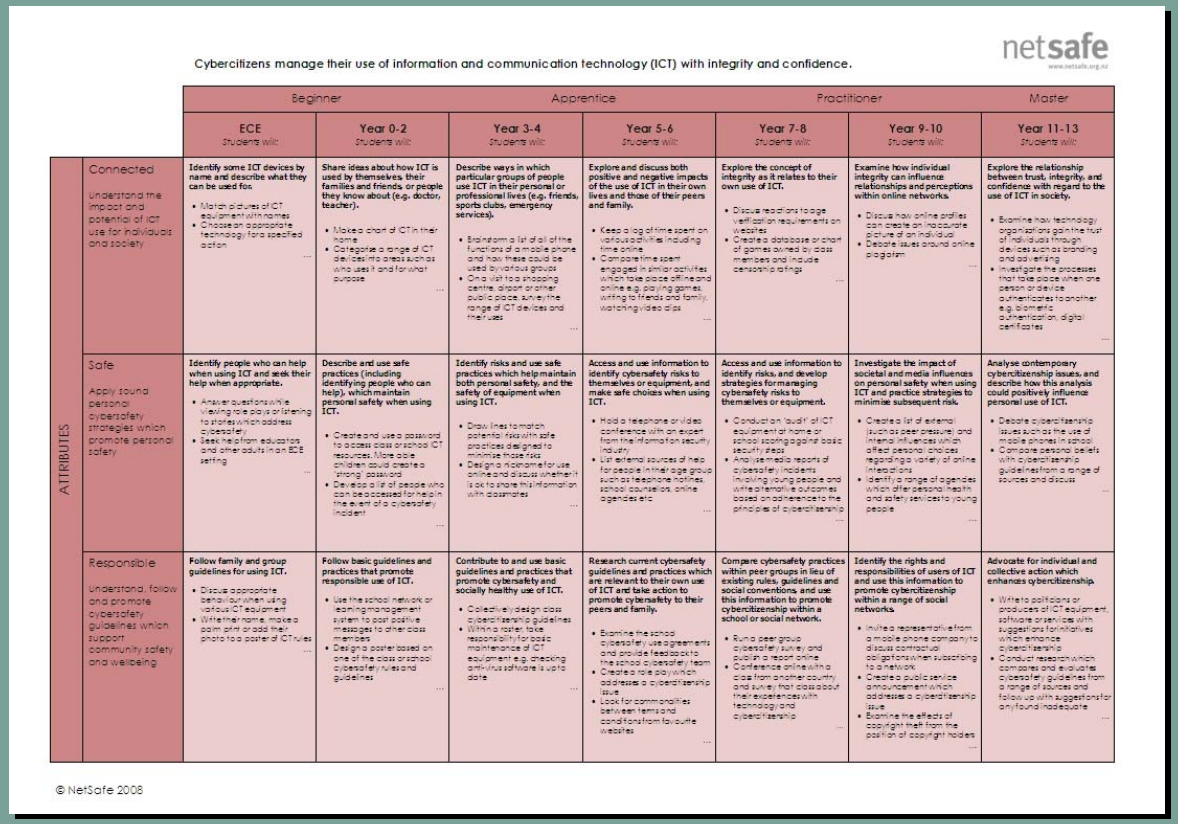
Oh great!
Here come
the fun police.

Cybercitizenship Pathway



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Cybercitizens manage their use of information and communication technology (ICT) with integrity and confidence.

ATTRIBUTES	Beginner		Apprentice		Practitioner		Master
	ECE *Students will:*	Year 0-2 *Students will:*	Year 3-4 *Students will:*	Year 5-6 *Students will:*	Year 7-8 *Students will:*	Year 9-10 *Students will:*	Year 11-13 *Students will:*
Connected Understand the impact and potential of ICT use for individuals and society	**Identify some ICT devices by name and describe what they can be used for.** • Match pictures of ICT equipment with names • Choose an appropriate technology for a specified action ...	**Share ideas about how ICT is used by themselves, their families and friends, or people they know about (e.g. doctor, teacher).** • Make a chart of ICT in their home • Categorise a range of ICT devices into areas such as who uses it and for what purpose ...	**Describe ways in which particular groups of people use ICT in their personal or professional lives (e.g. friends, sports clubs, emergency services).** • Brainstorm a list of all of the functions of a mobile phone and how these could be used by various groups • On a visit to a shopping centre, airport or other public place, survey the range of ICT devices and their uses ...	**Explore and discuss both positive and negative impacts of the use of ICT in their own lives and those of their peers and family.** • Keep a log of time spent on various activities including time online • Compare time spent engaged in similar activities which take place offline and online e.g. playing games, writing to friends and family, watching video clips ...	**Explore the concept of integrity as it relates to their own use of ICT.** • Discuss reactions to age verification requirements on websites • Create a database or chart of games owned by class members and include censorship ratings ...	**Examine how individual integrity can influence relationships and perceptions within online networks.** • Discuss how online profiles can create an inaccurate picture of an individual • Debate issues around online plagiarism ...	**Explore the relationship between trust, integrity, and confidence with regard to the use of ICT in society.** • Examine how technology organisations gain the trust of individuals through devices such as branding and advertising • Investigate the processes that take place when one person or device authenticates to another e.g. biometric authentication, digital certificates ...
Safe Apply sound personal cybersafety strategies which promote personal safety	**Identify people who can help when using ICT and seek their help when appropriate.** • Answer questions while viewing role plays or listening to stories which address cybersafety • Seek help from educators and other adults in an ECE setting ...	**Describe and use safe practices (including identifying people who can help), which maintain personal safety when using ICT.** • Create and use a password to access class or school ICT resources. More able children could create a 'strong' password • Develop a list of people who can be accessed for help in the event of a cybersafety incident ...	**Identify risks and use safe practices which help maintain both personal safety, and the safety of equipment when using ICT.** • Draw lines to match potential risks with safe practices designed to minimise those risks • Design a nickname for use online and discuss whether it is ok to share this information with classmates ...	**Access and use information to identify cybersafety risks to themselves or equipment, and make safe choices when using ICT.** • Hold a telephone or video conference with an expert from the information security industry • List external sources of help for people in their age group such as telephone hotlines, school counsellors, online agencies etc ...	**Access and use information to identify risks, and develop strategies for managing cybersafety risks to themselves or equipment.** • Conduct an 'audit' of ICT equipment at home or school, scoring against basic security steps • Analyse media reports of cybersafety incidents involving young people and write alternative outcomes based on preferences in the principles of cybercitizenship ...	**Investigate the impact of societal and media influences on personal safety when using ICT and practice strategies to minimise subsequent risk.** • Create a list of external (such as peer pressure) and internal influences which affect personal choices regarding a variety of online interactions • Identify a range of agencies which offer personal health and safety services to young people ...	**Analyse contemporary cybercitizenship issues, and describe how this analysis could positively influence personal use of ICT.** • Debate cybercitizenship issues such as the use of mobile phones in school • Compare personal beliefs with cybercitizenship guidelines from a range of sources and discuss ...
Responsible Understand, follow and promote cybersafety guidelines which support community safety and wellbeing	**Follow family and group guidelines for using ICT.** • Discuss appropriate behaviour when using various ICT equipment • Write their name, make a palm print or add their photo to a poster of ICT rules ...	**Follow basic guidelines and practices that promote responsible use of ICT.** • Use the school network or learning management system to post positive messages to other class members • Design a poster based on one of the class or school cybersafety rules and guidelines ...	**Contribute to and use basic guidelines and practices that promote cybersafety and socially healthy use of ICT.** • Collectively design class cybercitizenship guidelines • Within a roster, take responsibility for basic maintenance of ICT equipment, e.g. checking anti-virus software is up to date ...	**Research current cybersafety guidelines and practices which are relevant to their own use of ICT and take action to promote cybersafety to their peers and family.** • Examine the school cybersafety use agreements and provide feedback to the school cybersafety team • Create a role play which addresses a cybercitizenship issue • Look for commonalities between terms and conditions from favourite websites ...	**Compare cybersafety practices within peer groups in lieu of existing rules, guidelines and social conventions, and use this information to promote cybercitizenship within a school or social network.** • Run a peer group cybersafety survey and publish a report online • Conference online with a class from another country, and survey that class about their experiences with technology and cybercitizenship ...	**Identify the rights and responsibilities of users of ICT and use this information to promote cybercitizenship within a range of social networks.** • Invite a representative from a mobile phone company to discuss contractual obligations when subscribing to a network • Create a public service announcement which addresses a cybercitizenship issue • Examine the effects of copyright theft from the position of copyright holders ...	**Advocate for individual and collective action which enhances cybercitizenship.** • Write to politicians or producers of ICT equipment, software or services with suggestions for initiatives which enhance cybercitizenship • Conduct research which compares and evaluates cybersafety guidelines from a range of sources and follow up with suggestions for any found inadequate ...

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Hector's World™

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The NetBasics

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NATIONAL AWARENESS PROGRAM

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Challenges

- Low media interest in positive initiatives
- Human response to ‘non-immediate’ threats
- Funding
- Cutting edge – no clear path
- How do we measure success?

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