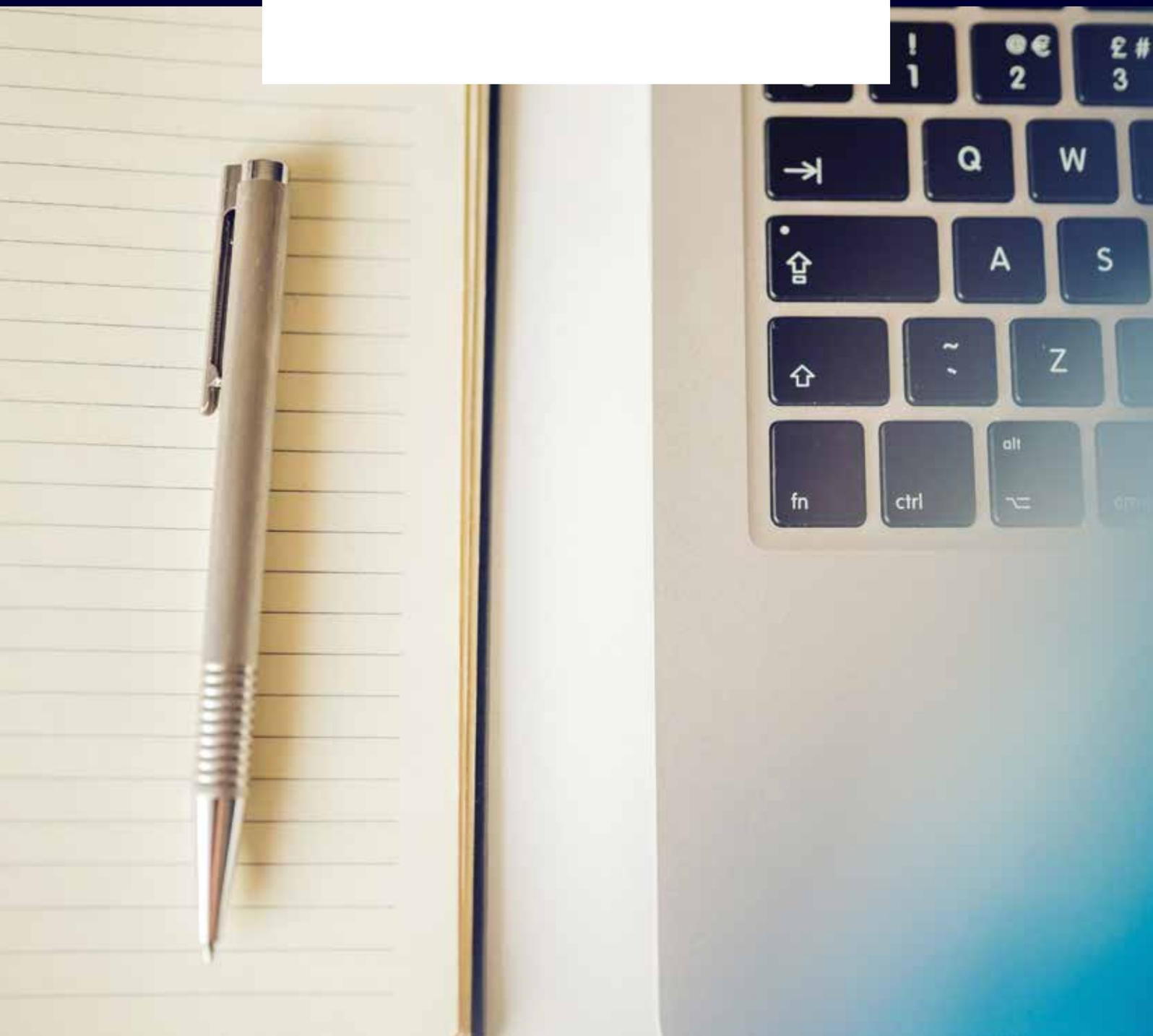
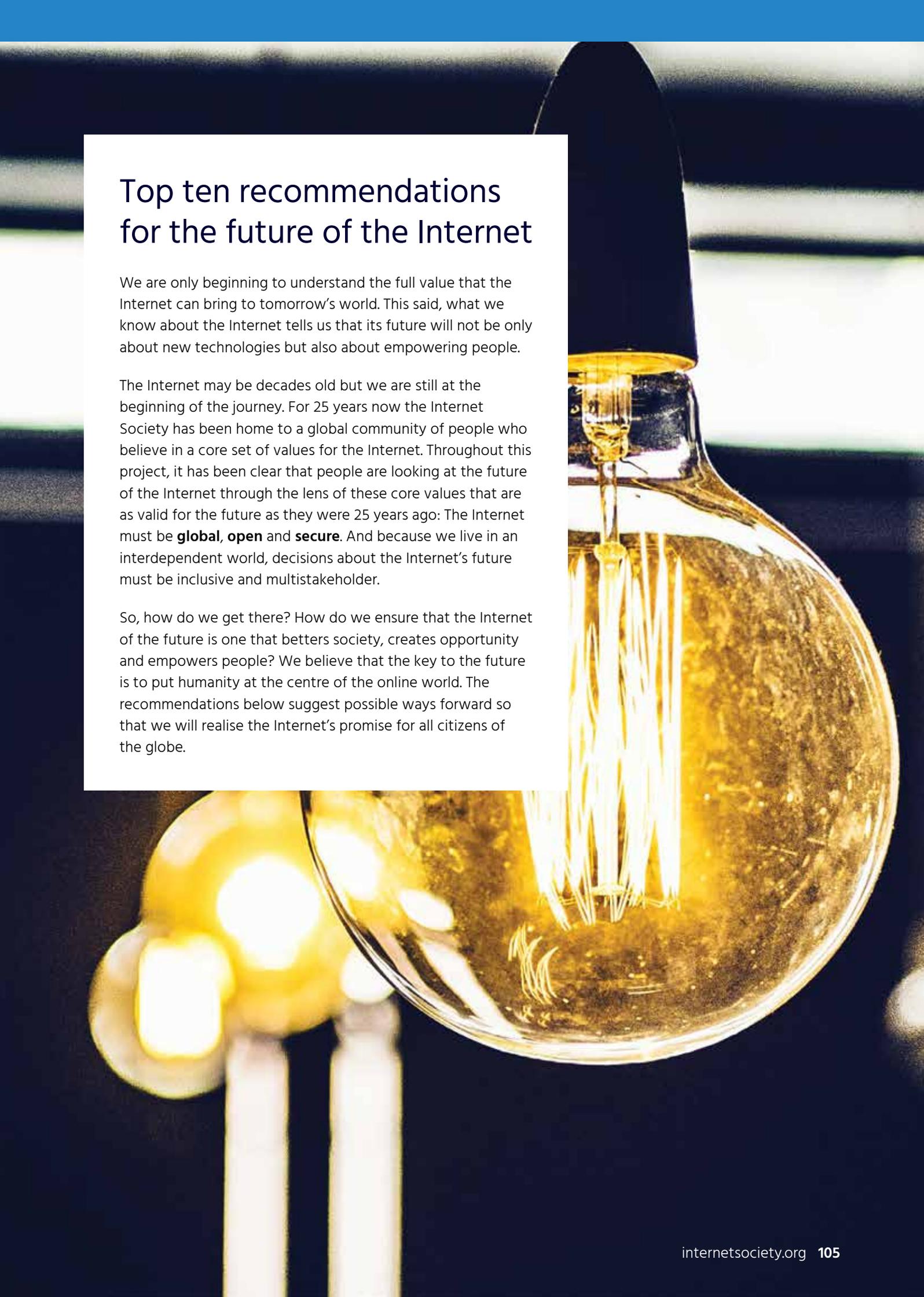


9

Recommendations





Top ten recommendations for the future of the Internet

We are only beginning to understand the full value that the Internet can bring to tomorrow's world. This said, what we know about the Internet tells us that its future will not be only about new technologies but also about empowering people.

The Internet may be decades old but we are still at the beginning of the journey. For 25 years now the Internet Society has been home to a global community of people who believe in a core set of values for the Internet. Throughout this project, it has been clear that people are looking at the future of the Internet through the lens of these core values that are as valid for the future as they were 25 years ago: The Internet must be **global**, **open** and **secure**. And because we live in an interdependent world, decisions about the Internet's future must be inclusive and multistakeholder.

So, how do we get there? How do we ensure that the Internet of the future is one that betters society, creates opportunity and empowers people? We believe that the key to the future is to put humanity at the centre of the online world. The recommendations below suggest possible ways forward so that we will realise the Internet's promise for all citizens of the globe.



Human values must drive technical development and use

- We must have a public debate for society to agree on ethical standards and norms for the use of emerging technologies.
- These ethical considerations should be embedded in the design and development of new technologies.
- Industry should be proactive in incorporating independent ethical reviews into business decisions about emerging technologies.

Apply human rights online as well as offline

- Governments should stop using Internet shutdowns and other means of denying access as a policy tool: we must keep the Internet on.
- Just as in the offline environment, any limitations to human rights online should be a last resort and be exceptional, proportionate and follow the due process of law.
- Individuals should continue to have the ability to communicate confidentially, anonymously and securely.
- Encryption is and should remain an integral part of the design of Internet technologies, applications and services. It should not be seen as a threat to security. We must strengthen encryption, not weaken it.



Put users' interests first with respect to their own data

- Put users in control of their own data. All users should be able to control how their data is accessed, collected, used, shared and stored. They should also be able to move their data between services seamlessly.
- Application and service providers must be transparent about how and why they collect users' personal data. No one should use personal data to discriminate against individuals or groups of individuals.
- Encourage data minimisation practices. Insist on selective data collection and only for as long as necessary.

Act now to close digital divides

- Recommit the UN Sustainable Development Goals, in particular, to provide universal and affordable access to the Internet in least developed countries by 2020.
- Prioritise infrastructure development around the globe including high speed and wireless networks, community-based infrastructure and data centres.
- Create a hosting environment for local content that reduces transit costs and allows for cheaper, better, faster traffic exchange.
- Equip youth and workers with the right skills, connect local talent to the global economy.
- Incorporate security-by-design into devices and systems to prevent the emergence of a security divide.

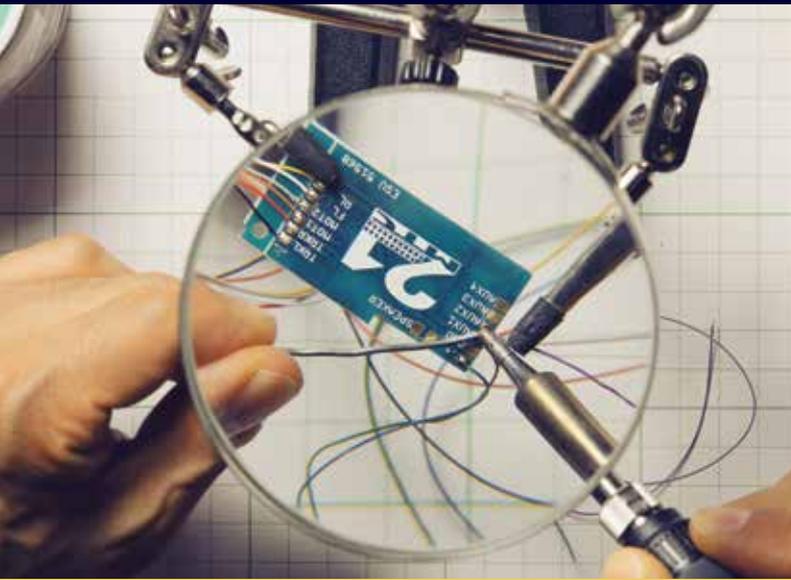


Make the Internet economy work for everyone

- Governments, institutions and industry must prioritise skills development and training to allow people to keep pace with innovation and its impact on jobs. They must prepare the workforce for “new collar jobs”.
- Create an enabling environment for entrepreneurship and empower people to create their own globally competitive startups. Ensure users from all around the world become creators rather than simply consumers.
- Remove barriers to cross-border data flows to ensure that everyone has the same opportunity to participate in and benefit from the global Internet economy.
- Competition policies across the world should be adapted to reflect the complexity of the modern Internet economy, including taking digital presence, data collection and citizen use into account when assessing a company’s market power.

Take a collaborative approach to security

- Online security must be made easier for users. Industry and governments should invest in the creation of usable tools and information to help users make informed decisions about privacy, rights and security.
- Corporations and governments must adopt a risk management approach that goes beyond securing infrastructure and incorporates the principles of responsibility, collaboration, and the safeguarding of human rights. They must develop best practices to protect their networks from Internet threats, and protect the Internet from vulnerabilities on their network.
- Security professionals must work collaboratively to test product security and disclose any vulnerabilities in a responsible manner. The cost of security failures must be assessed to those who cause the failure, not to the end user.
- Legal and policy frameworks must allow ethical hackers and penetration testers to share information.



Increase accountability for data handlers

- Create an accountability regime, including liability provisions to ensure that those entities that collect, compile and manipulate data are liable for its abuse and its security, not the users.
- Develop insurance policies that reward responsible security behaviour and the proper protection of personal data.
- The roles, responsibilities, and liabilities of those handling data should be clarified.

Build strong, secure, resilient networks

- Interoperability based on open standards, global reach and integrity, and permissionless innovation must remain a cornerstone of future network development.
- Technologists need to promote diversity in networks and services to allow for the next generation of products and services to emerge.
- Prepare for dramatic growth in the number of users and devices. Scale bandwidth and IP addressing capability by investing in underlying network infrastructure including IPv6, as well as new radio equipment and technologies (e.g. 5G), and backhaul fibre.



Address the need for online social norms

- Make the Internet a safe place where everyone is free from online violence and harassment.
- We must forge basic norms of behaviour online so that users feel confident in using the Internet.
- Large Internet platforms must take greater responsibility to tackle the problems of violence and hate online.
- Multistakeholder engagement is the way to develop norms of behaviour. All stakeholders in society need to accept responsibility to ensure that the Internet is not used as a tool to spread hate.

Empower people to shape their own future

- Stakeholders should support civil society and its critical role in protecting and promoting human rights online.
- Governments should welcome and support civil society's meaningful participation in domestic Internet policymaking.
- All stakeholders should build momentum from the recent success of multistakeholder processes, and expand the use of these processes globally.