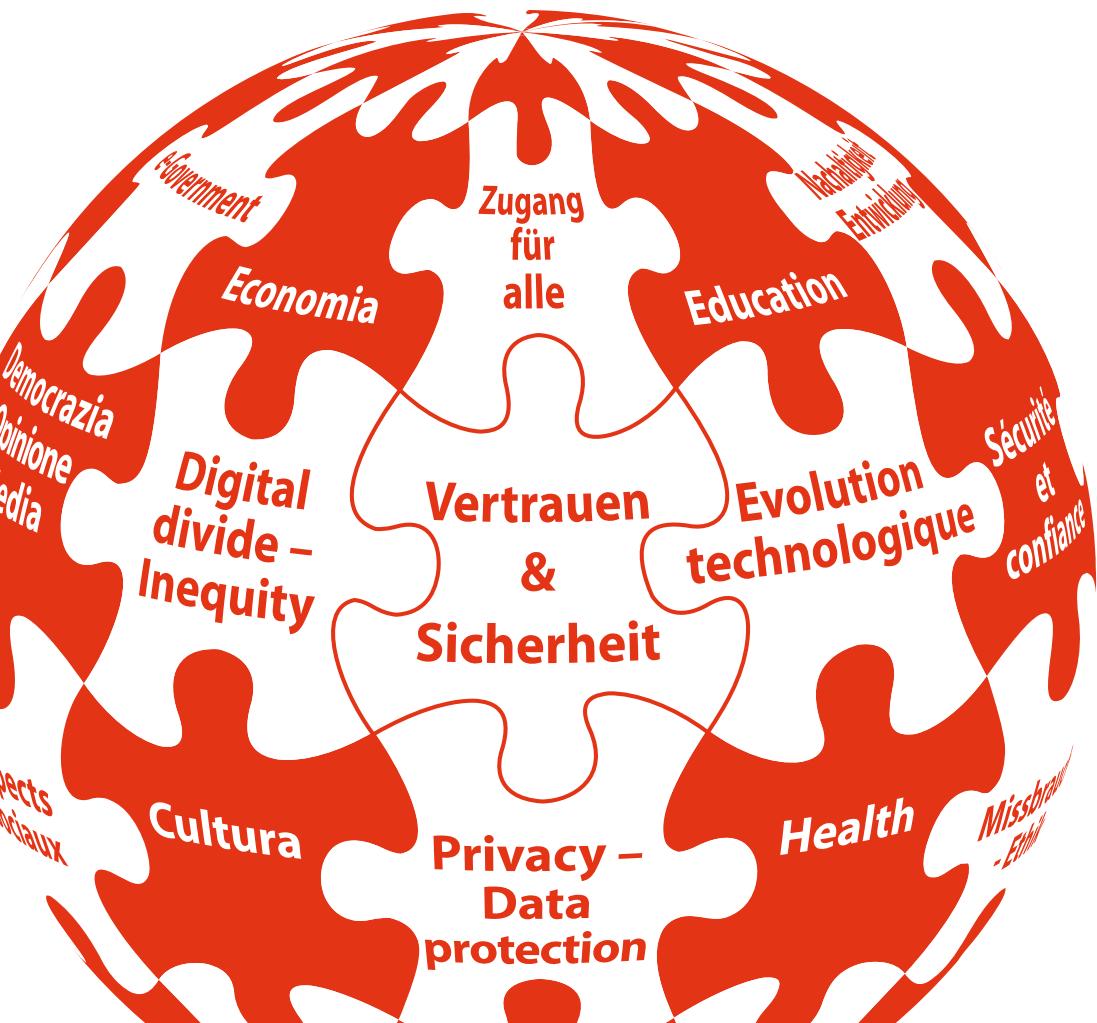
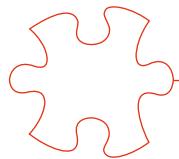


# Information Society in Switzerland

Informationsgesellschaft Schweiz  
Société de l'information en Suisse  
Società dell'informazione in Svizzera







### We are the information society!

The internet is opening up new horizons and possibilities for society. Whether at work or at home, it would be difficult to conceive of life without computers. Nowadays, anyone looking for information starts by searching the internet. The internet, which is little more than fifteen years old, offers a virtually unlimited supply of information and is also used as a quick and cheap means of communication. You can quickly check your bank balance, pay bills, look up a timetable, book flights or holiday travel, etc.

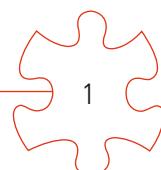
Although these merely represent a convenience for individuals, they result in savings for businesses in terms of administrative procedures with suppliers, customers and government administrations.

The implications of the new information and communication technologies in terms of society and business are immense. Consequently in January 2006, the Federal Council revised its original «Strategy for an Information Society in Switzerland», which was drawn up in 1998. Switzerland needs to keep pace internationally in this important area in order to be able to use the new technologies as a competitive advantage.

Compared with other countries, Switzerland has created excellent conditions for the digital age and is among the leaders in terms of infrastructure – broadband, computer penetration and internet access. In terms of specific usage, however, Switzerland lags behind in many areas, such as eGovernment, eHealth and education and culture, four applications that are urgent priorities in the Federal Council's strategy.

Politicians may propose goals and applications to achieve a Swiss information society, but these must be implemented in the economy and in society and we call on everyone, including you, the reader, to assist in doing this.

Any initiative that encourages the use of the new information and communication technologies should be welcomed, whether that initiative comes from society or from business.

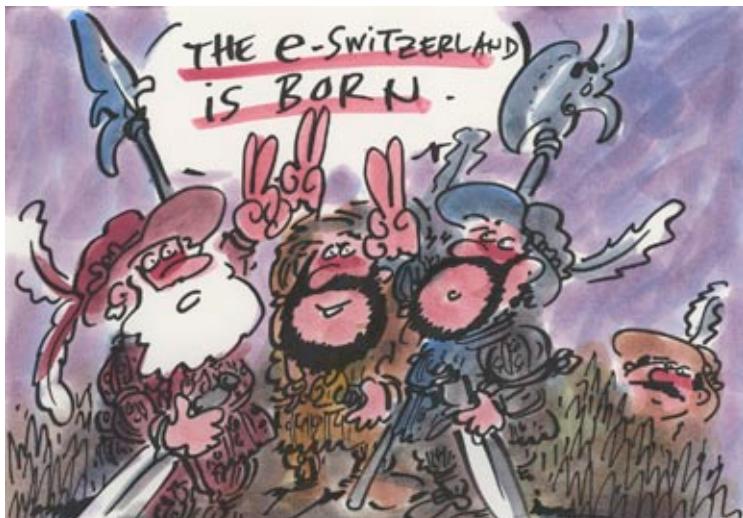


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With sponsorship from the Swiss Academy of Engineering Sciences, SATW, the Committee on Information and Communication Technologies and the umbrella organisation ICTswitzerland have taken the initiative and prepared this easy-to-understand booklet, together with a number of sponsoring organisations from business, civil society and politics. It is available to anyone who is interested, but especially to those who pass on knowledge in their working or private lives.

At the end of January 2007, a conference was held in Gerzensee at which interested parties and experts from all over Switzerland discussed the different applications of the Federal Council's Strategy for an Information Society in seven workshops, the outcome of which served as a basis for this brochure. The well-known cartoonist, Pierre-Paolo Pugnale, captured the event in over 100 cartoons during the conference. A small selection of his cartoons can be found in this booklet.

In addition to the brochure, the initiators and sponsoring organisations have also set up a website containing a wealth of material which it hopes will stimulate a lively discussion throughout society. You, too, can take part by clicking on [www.ict-21.ch](http://www.ict-21.ch).





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The Chinese symbol for «opportunity» and «danger» is the same. The internet opens up a wealth of opportunities, but also dangers – dangers to private internet users and risks which both the public and private sector must address in detail.

The internet as an «always-on» system also contains questionable information, information which contains errors or half-truths. Data highways are just as dangerous as other highways, but the difference is that there are no generally accepted traffic rules or police who can enforce compliance, because there is such a wealth of information. Dealing with the internet safely is a skill that has to be learned and then practised. In Switzerland, we take the issue of data protection very seriously.

System security is vital in order to enable the country, the economy and society to function properly. Protecting the information technology structures of the state, business and society against criminal or terrorist attack is of prime importance. The Confederation, in conjunction with a wide variety of institutions in Switzerland and abroad, keeps the major risks in check and assures network security.

Internet users must themselves be responsible for dealing with the risks associated with private use, which for some individuals may be extremely high. If everyone takes the appropriate safety measures, abuses can be kept in check. Government departments provide the framework conditions to enable us to trust the new systems and their use when we use the internet properly.

The Confederation, too, has in recent years used the internet as a tool for providing information quickly and easily. Citizens have easy access to all important government information via the Swiss Portal [www.ch.ch](http://www.ch.ch) and the portal of the Federal Authorities of the Swiss Confederation [www.admin.ch](http://www.admin.ch) which are operated jointly by the Confederation, the cantons and the communes. The Confederation, together with the cantons and the communes, also wants to promote eGovernment.

In the cantons of Geneva, Neuchâtel and Zurich, thousands of voters have already been able to cast their votes electronically. As a result

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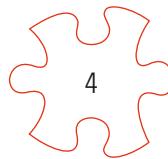
of these successful trials, Parliament has decided to gradually extend eVoting trials.

Our thanks go to the initiators and sponsoring organisations for supporting the development of the information society in Switzerland and for their continued support. But we also thank you, the reader, for your interest and for helping to promote the information society in Switzerland.

ANNEMARIE HUBER-HOTZ  
Federal Chancellor

### Links

- **Federal Council's Strategy for the Information Society (1998, 2006)**  
<http://www.bakom.admin.ch/themen/infosociety/00695/index.html?lang=en>





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## Trust, Confidence and Security

Vertrauen und Sicherheit • Confiance et Sécurité • Fiducia e Sicurezza

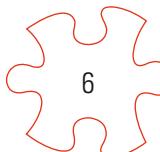
### We need trust and confidence

1

Most people have already experienced this problem, whether at work or in their private lives: once confidence is damaged or lost, it is difficult to restore. And where there is a lack of security, feelings of unease and mistrust increase, not just between people, but also when dealing with technology, computer programs and old or new services.



Information and communication technologies (ICT) offer new benefits and opportunities. However, there are also risks associated with them which are not always immediately apparent, although these still ought to be the exception. If we manage to tackle the problems relating to privacy or data protection and reduce the possibility of improper use, deceit and harm, improved security and confidence in dealing with ICT will follow. In the final analysis, although road hogs and traffic offenders do exist, it does not mean that we should have less confidence in the roads being essentially safe.



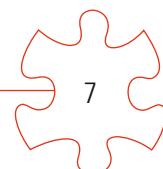


We also need rules and standards in the information society, in the same way that we have traffic regulations, so that we can participate with confidence and without impediment and can exploit its benefits. What we need is not just new government laws to tackle major risks (spam, cybercrime, etc.); business and society also need to develop and implement corresponding rules and obligations.

There are many reasons for the lack of confidence and the perceived lack of security. Experts point out that using the internet, online and mobile services or other «electronic» services, requires a basic understanding of their features. Our reservations, scepticism and healthy common sense, based on experience, also serve as good counsel in the digital age. Personal responsibility and the acquisition of new media and communication skills are also a must. However, responsibility for oneself also includes responsibility for those who are close to us or in our trust, especially children.

The protection of young people on the internet can no longer be ordained by decree or delegated to a specialist department which decides on age and suitability – as was the case with films. Young people are now often much better at surfing the net than their parents – and their parents therefore frequently have no idea about the useful or unsavoury content their offspring find there. Once a year, a «Safer Internet Day» (SID) is held throughout Europe which aims to tackle this problem and protect children and young people from violence and pornography in the new media.

Trust, confidence and security are best ensured if the soundness of new services is checked in advance or if we resort to reliable mediation from individuals or professionals. Since April 2007, people in Switzerland no longer need to put up with being pestered by all kinds of unwanted spam as sending spam is now a punishable offence and can be reported to the relevant government departments. Caution should always be exercised – even with what appears to be attractive (free) offers from the internet. The State Secretariat for Economic Affairs (SECO) has also published a brochure with practical tips and urges people to «beware of internet scams».





1

### Statement 1

«Eine informierte Gesellschaft schafft die Voraussetzungen für eine lebendige demokratische Ordnung. Das setzt voraus, dass die BürgerInnen nicht nur über die Chancen, sondern auch über die Risiken der neuen Informationstechnologien ausreichend informiert sind und sie verantwortungsvoll nutzen. Den für den Datenschutz verantwortlichen Stellen bei Bund und Kantonen obliegt es, darüber zu wachen, dass bei heutigen wie künftigen Anwendungen der Schutz persönlicher Daten gewährleistet ist.»

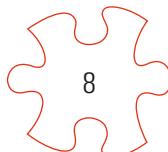
HANSPETER THÜR, Eidgenössischer Datenschutz- und Öffentlichkeitsbeauftragter



### Statement 2

«How SAFE is... SAFE enough?»

RAYMOND MOREL, SATW, ICTswitzerland, IFIP





## Statement 3

«Wer Vertrauen will - muss Vertrauen schenken! Die Anbieter von Waren, Dienstleistungen, etc. haben endlich begriffen, dass nicht die Technik oder die Technologie die Markt-Treiber sind, sondern die Konsumenten, die Vertrauen haben in einen Anbieter, seine Produkte und seinen off- und online-Auftritt. Immer mehr Firmen lassen sich durch unabhängige Dritte in die Karten schauen und erfüllen freiwillig Auflagen, die Fairness in den Geschäftspraktiken widerspiegeln und somit für Anbieter und Konsumenten einen Gewinn darstellen!»

ROBERT HILTY, e-Trust International Association A.S.B.L., Brussels

## Links

- **Contributions of the Participants**

<http://www.ict-21.ch/spip.php?rubrique53>

- **Documents and References**

<http://www.ict-21.ch/spip.php?rubrique7>

- **Trust, Confidence and Security**

<http://www.bakom.ch/themen/infosociety/01691/01710/index.html?lang=en>

- **Online security for children and young people (in German and French)**

<http://www.security4kids.ch>

- **Swiss Security Day (in German and French)**

<http://www.swisssecurityday.ch/>

- **The Federal Data Protection and Information Commissioner**

<http://www.edoeb.admin.ch/index.html?lang=en>

- **EU Safer Internet**

<http://www.qlinks.net/quicklinks/status.htm#saferint>

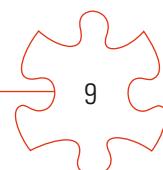
- **Educaguide: ICT and Ethics (German and French)**

<http://www.educaguides.ch/dyn/9961.php?sid=47337587996174395918355705571130>

- **Beware of internet scams (SECO brochure) (in German, French and Italian)**

<http://www.seco.admin.ch/dokumentation/publikation/00035/00038/02033/index.html?lang=de>

Free publications at: [fair-business@seco.admin.ch](mailto:fair-business@seco.admin.ch)





## Education in social change

«Knowledge is power», as the English philosopher, Francis Bacon (1561-1626), said. But you cannot really have knowledge without education, whether this is obtained in schools or elsewhere. Education must be accessible to everyone and everyone should have equal opportunities for access. At least that is the generally-accepted principle. Now more than ever, education is a lifelong process for society as a whole.

## 2

Given the spread of modern information technologies, the way in which learning is organised faces new challenges. Schools, as the traditional places of regular learning, are particularly affected by this development. It is not just about using PCs and imparting computer skills, but also about «looking behind the scenes». How does word processing work? Who does what with all the data – especially mine? Who gains most from all the information?

It is therefore clear that the much-vaunted information society demands a wealth of material and social skills, particularly on the part of teaching staff. Much of the knowledge that is available today can no longer simply be captured in standard teaching materials and set curricula. Personalised learning provision, geared towards particular target groups, is vital. Schools will now increasingly have to integrate informal learning processes and cooperative methods of learning.

Thanks to today's communication technologies, there are also new and more diverse opportunities to acquire and provide knowledge in the education sector. In the past, distance learning made it possible to obtain further qualifications, irrespective of where the learning institution was located. New eLearning forms and services have appeared in the last few years. eLearning cannot replace existing ways of providing knowledge, but it is likely to supplement and support them, where viable and useful.

Nowadays, school children are increasingly exposed to distorted images, misleading messages and temptations by certain media. Dealing with different types of media and their various forms, roles,



styles and the like – where the key word is media competence – should be afforded a higher status in school education and promoted specifically.

Young people develop their own media preferences and interests, which develop as they search for information. The new media represent an opportunity to spread youth identities and culture. New forms of «edutainment» can also be used for this, provided that they actually enable playful and effective variants of lifelong learning.

2

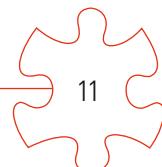


### Statement 1

«Insegnare, per me, non significa solo sostenere i singoli individui nell'apprendimento di conoscenze strettamente legate alla mia materia scolastica, ma accompagnarli e guidarli nello sviluppo di competenze sovradisciplinari quali, per esempio, le capacità di apprendere in maniera autonoma e collaborativa, di gestire e valutare l'informazione e di osservare con uno sguardo curioso e critico la realtà che li circonda e i continui mutamenti del mondo in cui vivono.»

[http://ict.satw.ch/SPIP/article.php3?id\\_article=307](http://ict.satw.ch/SPIP/article.php3?id_article=307)

SARA ALLOATTI, Scuola cantonale «Hohe Promenade» di Zurigo  
Premiato il «Cavaliere della comunicazione 2005»



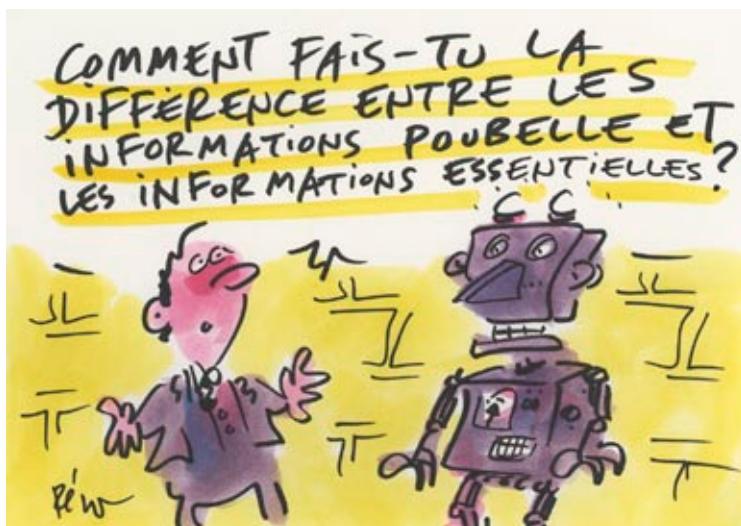


## Statement 2

«Welche Informationen im Internet sind verlässlich und was ist wirklich wissenswert? Was muss gelernt und geprüft werden? Was kann nur rasch im Netz abgerufen werden? Genügt Zugangswissen statt Faktenwissen? Wie werden die Möglichkeiten des Wissensaustausches und der Teamarbeit über das Netz genutzt? Mit den neuen Technologien verändert sich der Zugang zu Wissen, was Folgen für Bildungsinhalte und Lernorganisation nach sich ziehen wird.»

2

HANNA MURALT MÜLLER, Schweizerische Stiftung für audiovisuelle Bildungsangebote (SSAB)



## Statement 3

«Les progrès numériques sont à la fois l'un des facteurs de déstabilisation du système éducatif et l'une des ressources pour sa possible réforme.»

Extraits p. 31 du dossier République 2.0 – Vers une société de la connaissance ouverte (5.4.07)



### Statement 4

«Faire son chemin dans la vie en société et dans le monde du travail n'est pas envisageable sans disposer des compétences de base dans l'utilisation des nouveaux médias électroniques. Les 26 directrices et directeurs cantonaux de l'instruction publique sont conscients de ce défi à l'école et à la formation. Ils ont ainsi adopté le 1er mars 2007 une actualisation de la stratégie de la CDIP en matière de technologies de l'information et de la communication (TIC) et de médias dans laquelle sont fixées les priorités pour une collaboration au niveau suisse dans le domaine TIC et formation. Le Serveur suisse de l'éducation [www.educa.ch](http://www.educa.ch) en tant que plate-forme pour l'échange d'informations et l'accès aux contenus électroniques d'enseignement et d'apprentissage doit être assuré à long terme et son développement poursuivi.»

[http://www.edk.ch/f/CDIP/Geschaefte/framesets/mainIKT\\_f.html](http://www.edk.ch/f/CDIP/Geschaefte/framesets/mainIKT_f.html)

ISABELLE CHASSOT, Conseillère d'Etat du Canton de Fribourg,  
Présidente de la Conférence suisse des directeurs cantonaux de  
l'instruction publique, (CDIP)

### Links

- **Contributions of the Participants**

<http://www.ict-21.ch/spip.php?rubrique56>

- **Documents and References**

<http://www.ict-21.ch/spip.php?rubrique10>

- **Public-Private Partnership – «School on the Net»**

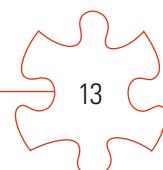
<http://www.bakom.ch/themen/infosociety/01691/01745/index.html?lang=en>

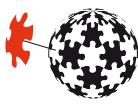
- **The Swiss Education Server**

<http://www.educa.ch/dyn/14.asp>

- **EDK/CDIP – ICT Strategy (in German and French)**

[http://www.edk.ch/d/EDK/Geschaefte/framesets/mainAktivit\\_d.html](http://www.edk.ch/d/EDK/Geschaefte/framesets/mainAktivit_d.html)





## Democratic Opinion-forming and Decision-making

Demokratische Meinungs- und Willensbildung • Formation démocratique de l'opinion • Formazione di opinioni e volontà democratiche

### Democracy requires the exchange of ideas and participation

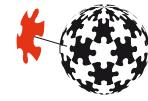
Switzerland offers unique and exemplary opportunities for democratic participation. Yet many citizens are either not interested or have very little interest in politics – at least in terms of how they experience or understand «politics». As a result of the new technologies, there are now far more opportunities for broad, democratic decision making. We need to use them appropriately.

3

The democracy of the future will be electronically networked. The aim is to improve information, democratic opinion forming and decision making using the new media. Although it has become easier to exchange information, the increasing flow of information also makes it more difficult for people to get their bearings and form their own opinion. On the one hand, search engines such as Google make it much easier to search for information; but, at the same time, by determining the selection and ranking of search results, they also influence the formation of opinion.

Information alone without an exchange of ideas is not enough. In the political debate about ideas, programmes and concepts, it is better to talk to each other than to talk about each other – and not just before votes or elections. A well-informed citizen who is familiar with the proposals in question, but does not take part in voting, contributes little to democracy. Democracy requires the participation of citizens.

The new information and communication technologies have also led to an enormous «acceleration», as the communications expert, Peter Glotz, once described it. Consequently, many people in society, especially the elderly, cannot keep pace with the speed of change which can lead to them losing their bearings and being left behind. A digital divide could also divide Swiss society. And the exclusion of any segment of the population is dangerous in a democracy. In order to ensure social cohesion, we need special offerings and programmes for all those who can no longer keep pace on their own.

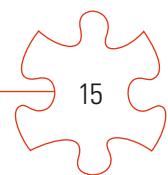


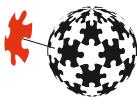
The media play a major role in a democracy and therefore have a special responsibility. Experts are afraid that some parts of the media are increasingly losing sight of their social mission and no longer really contribute to the formation of public opinion. Factual information is increasingly being overlaid or even suppressed by entertainment – allegedly in the public interest. The public service aspect of radio and television – by which they are required to serve the public interest – will therefore continue to be crucial.



3

Democracy in the digital age (eDemocracy) is therefore more than the mere continuation of previous types of participation through new technical means. The new possibilities pose major challenges for political actors, parties and authorities alike. Trust is required in order to exercise democratic rights by electronic means. But trust is only possible if the procedures are familiar and easily understood. Following the trials that it authorised in the cantons of Geneva, Neuchâtel and Zurich, the Confederation also wishes to give other cantons the opportunity to practise eDemocracy. Another of its objectives in doing this is to get young people more interested in politics. So far, the results are very promising. This much is certain: when it comes to introducing electronic participation, security takes priority over speed.





3



## Statement 1

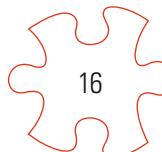
«A l'ère de la globalisation et du numérique, la place du débat politique et des informations d'intérêt général dans les médias est vitale pour la démocratie suisse. Le mandat de service public de la SRG SSR idée suisse devra être renforcé pour ce qui concerne l'Internet et les nouveaux médias.»

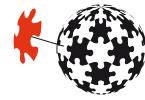
ARMIN WALPEN, SRG SSR idée suisse.

## Statement 2

«Ich finde es naiv davon auszugehen, dass die elektronische Demokratie bei der Information und Meinungsbildung aufhört. eDemokratie bringt vielmehr neue Formen der Entscheidungsfindung und der elektronischen Beteiligung. Damit sind auch nachhaltige Auswirkungen auf das politische System der Schweiz, auf Politik und Parteien verbunden.»

ANDREAS LADNER, IDHEAP, Forschungsprojekt «smart-vote», NCCR Democracy





## Statement 3

«A l'avenir également, les médias réalisés dans le respect de l'éthique journalistique doivent rester le lieu fondamental de la discussion publique et de la formation de l'opinion – et non être cantonés à une fonction de divertissement.»

MATHIEU FLEURY, impressum (Die Schweizer Journalistinnen)

## Statement 4

«L'expression des droits démocratiques au moyens des TICs implique la confiance des citoyens. La confiance n'est possible que si la transparence des processus peut être démontrée.»

MICHEL WARYNSKI, Chancellerie d'Etat à Genève

3

## Links

- **Contributions of the Participants**

<http://www.ict-21.ch/spip.php?rubrique54>

- **Documents and References**

<http://www.ict-21.ch/spip.php?rubrique8>

- **Report on electronic voting pilot projects  
(in German and French and Italian)**

[http://www.parlement.ch/ab/frameset/d/s/4716/241444/d\\_s\\_4716\\_241444\\_241683.htm](http://www.parlement.ch/ab/frameset/d/s/4716/241444/d_s_4716_241444_241683.htm)

- **Electronic voting, the Federal Chancellery  
(in German, French and Italian)**

<http://www.bk.admin.ch/themen/pore/evoting/index.html?lang=de>



## Culture

Kultur • Culture • Cultura

### Culture in the digital age

Shorter working lives and the resulting increase in leisure time, combined with higher incomes, has meant that the importance of culture in all spheres of society is increasing. Today, culture is no longer limited predominantly to the temples of high culture such as opera houses, concert halls, theatres or museums.

4



Art, in nearly all its guises, almost always has a close relationship with technology – one example of this is films. With the advent of computers, artists have increasingly turned to media art. Even the boundaries between the producers and «consumers» of culture have become blurred as a result of digital technologies and the emergence of new forms of artistic expression. In a knowledge society, immaterial works are gaining increasing importance.



The new communication technologies have also led to culture becoming borderless. This gives rise to a blurring between local and global culture. However, the exchange of culture encouraged by better dissemination technologies and global marketing is associated with discernible risks, such as the erosion of cultural diversity.

Another phenomenon, which also has an effect on creative art, is the growing tendency in society towards individualisation to the point of isolation and the creation of new social networks.

All these developments pose new challenges for cultural and media policies which are still predominantly based on national borders. State support for culture and the media is coming under increasing pressure due to the liberalisation of markets and increasing globalisation. It is obvious that niche culture and small-scale performing arts in the regions – in total contrast to mass culture – have virtually no chance of survival without support from the State.

Another key question for cultural policy in the digital age will be how to reconcile conflicting interests: on the one hand, artists are entitled to reasonable compensation for their creations and their works. On the other hand, younger artists are increasingly questioning the commercial use of art and are demanding unrestricted access to creative works. Swiss copyright law will also have to find solutions that are fit for the future, not least because the public is calling for all the creative art that has been encouraged with the help of public funds to be accessible to them.

Equally important in the digital age is the question of how to deal with the country's cultural heritage. Vast amounts of literature, films, music and the like need to be digitised at great expense as soon as possible in order to safeguard them for future generations. The Swiss Federal Archives and the Swiss National Library have already begun this mammoth task. However, given the scale of the challenges, much still remains to be done in terms of Switzerland's cultural policy.



## Statement 1

«Le numérique, une chance pour la culture:  
le nouvel écosystème numérique de la culture est confronté, presque simultanément, à trois phénomènes:

- la numérisation des œuvres et l'essor fulgurant des pratiques d'échange sur les réseaux,
- la démocratisation des capacités de création et de diffusion,
- le phénomène de la "longue traîne", ... redonne de la valeur au fond de catalogue et donne une réalité à la diversité culturelle.»

Extraits p.17 du dossier République 2.0 – Vers une société de la connaissance ouverte (5.4.07)

4



## Statement 2

«Dans la Société de l'Information, la capacité de notre pays à produire et à consommer ses propres images est déterminante pour son identité et son indépendance. Un cinéma suisse largement accessible à tous les citoyens est l'un des objectifs prioritaires; de nouvelles stratégies de distribution de nos films devront être identifiées en fonction du développement de nouveaux supports de divertissement et d'information.»

NICOLAS BIDEAU, section Cinéma, Office fédéral de la culture (OFC)



## Statement 3

*«Der Vorschlag des Bundesrates ist ein guter Schritt, um die Probleme unserer zukünftigen digitalen Gesellschaft zu bewältigen.*

*Zu wünschen wäre, dass der Bund in Zukunft noch verstärkter interveniert und vor allem in der Bereitstellung der digitalen Netzwerke eine initiative Rolle einnimmt! Dies vor allem im Hinblick auf die Chancengleichheit zwischen Mann und Frau und in der Betreuung der Randregionen.»*

SAMIR – Filmemacher

## Statement 4

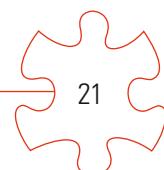
*«Die Kulturszene der Schweiz ist so vielfältig wie einzigartig. Um ihre Vielfalt – jenseits blosser Gefälligkeiten – zu bewahren, braucht es eine Kulturförderung. Doch auch die Kultur muss sich neuen Herausforderungen stellen und darf nicht im Bewahren von Pfründen verharren. Mit neuen Technologien wird sich das Kulturschaffen grundlegend verändern, das heisst, die bisherigen Grenzen zwischen Produzenten und Konsumenten werden sich immer mehr vermischen.»*

WOLF LUDWIG, comunica-ch

4

## Links

- **Contributions of the Participants**  
<http://www.ict-21.ch/spip.php?rubrique57>
- **Documents and References**  
<http://www.ict-21.ch/spip.php?rubrique11>
- **Memoriav: preserving the audiovisual heritage**  
<http://en.memoriav.ch/>





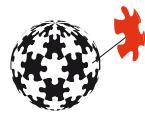
### Suitable framework conditions and opportunities for competition

The internet, unlike virtually any other major invention before it, was the result of the creativity of scientists and the boldness of a few pioneers from the business community. The fact that it functions so well and is spreading at breathtaking speed has only been possible because agreement was reached on binding standards and norms (internet protocols) at an early stage. Government administrations have so far – in contrast to classical telecommunications – largely kept a low profile in terms of regulating net traffic.

The use of the internet for business purposes was only recognised towards the end of the 1990s and the first attempt at a «New Economy» soon foundered. The first attempts at a «commercial colonisation of the internet», as one scientist put it, were so audacious that the dotcom bubble burst within a short space of time. However, the increasing economic importance of the new information and communication technologies (ICT) is undeniable.

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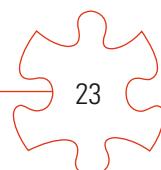


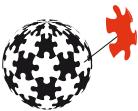
Information and communication technologies now have a decisive impact on productivity, competitiveness, new markets and the export opportunities of country's economy. ICT influence the training and employment opportunities of future generations. Today, anyone who fails to seize an opportunity in terms of training, business strategy, business organisation or market orientation, risks gambling away his future. Although the western industrialised nations were the leading players in all world markets yesterday, former developing countries or NICs such as China or India have caught up rapidly. Many business and finance experts predict that the Indian subcontinent, now a leading service provider in information technology, will also be the global engine of growth in coming years.

If Switzerland is to remain an important location for business and if its domestic economy is to remain competitive, major changes are essential. At the same time, a future-oriented division of labour is required. The government can create suitable framework conditions for defining internationally-compatible interfaces to improve market access for companies. There is also a major requirement for investment in education, training, further education and professional development, as well as in research and technology support. In its «Strategy for an Information Society», the Federal Council is trying to take account of these challenges and has given them the appropriate priority.

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However, in the age of globalisation and digitisation it is becoming increasingly clear that a government's power to legislate only reaches as far as the country's borders. International cooperation is also required. But even on this side of the border, the information society can only be shaped for the future if all involved work closely together: the government, business and Swiss society.





### Statement 1

«Der moderne Staat soll Dienstleistungen für die Unternehmen erbringen. Er steht den Unternehmen jederzeit mit einer raschen, unkomplizierten elektronischen Abwicklung von Administrativabläufen zur Verfügung. Im Sinn des No-Stop Government (keine Stopps bei der Verwaltung) unterstützt und begleitet der Staat die Unternehmen. Diese sind Partner, nicht mehr sporadische Bittsteller beim Staat.»

CHRISTIAN WEBER, Ressort KMU-Politik – Staatssekretariat für Wirtschaft (SECO)

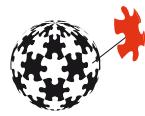


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### Statement 2

«Die elektronische Abwicklung des gesamten Behördenverkehrs bringt gerade für KMU eine spürbare Entlastung. Sie ermöglicht den Zugriff zu Formularen und die Erledigung von Routinegeschäften auf einfache Art auch ausserhalb von Bürozeiten. Zusätzlich müssen alle administrativen Melde- und Bewilligungsverfahren laufend kritisch auf deren Notwendigkeit und mögliche Vereinfachungen geprüft werden. Nur mit beiden Massnahmen lässt sich die Bürokratielawine eindämmen. Der volle Effizienzgewinn bedingt zudem, dass auch die staatlichen Stellen die elektronische Abwicklung in ihre eigene Tätigkeit integrieren.»

THOMAS PLETSCHER, Geschäftsleitung economiesuisse



## Statement 3

«Les entreprises bénéficient de la continuité et de la pérennité de l'État.»

ANDREAS SCHWEIZER, COM ICT (SATW), Association pour le patrimoine industriel (API)

## Statement 4

«Digitale Inhalte und die damit verbundenen technologischen Innovationen und neuartige Verbrauchernachfrage sind inzwischen ein wichtiger Wachstumsmotor der IKT-Industrie. Digitale Inhalte und das partizipative Web sind aber auch für alle anderen Unternehmen, für Internet-Nutzer aber auch für den Zugang zu Wissen, Bildung, und die Politik relevant. Der Staat kann die Erstellung und Nutzung digitaler Inhalte durch die Schaffung allgemein förderlicher Rahmenbedingungen unterstützen und für ein günstiges unternehmerisches Umfeld sorgen. Er ist gleichzeitig aber auch ein wichtiger Urheber und Nutzer digitaler Inhalte. Wie der Staat selbst mit seinen digitalen Inhalten umgeht, welche Inhalte er digital anbietet und wem er zu welchen Bedingungen Zugang gibt, muss verbindlich geregelt sein.»

Dr. SACHA WUNSCH-VINCENT, OECD (Paris)

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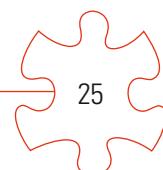
## Statement 5

«Gäbe es ohne Internet eine globale Wirtschaft, die es uns als kleine Firma ermöglichen würde auf dem Weltmarkt präsent zu sein? Heute führen wir weltweit Web-Präsentationen vor, informieren all unsere Kunden zeitgleich und updaten unsere Systeme auf der ganzen Welt, ohne dass wir die Büros verlassen müssen. Ohne diese globale Kommunikationsinfrastruktur würde die Noser Gruppe ganz anders aussehen!»

RUEDI NOSER, Unternehmer und Nationalrat

## Links

- **Contributions of the Participants**  
<http://www.ict-21.ch/spip.php?rubrique52>
- **Documents and References**  
<http://www.ict-21.ch/spip.php?rubrique6>
- **One-stop shop for SMEs (in German, French and Italian)**  
[http://www.kmuadmin.ch/kmucms/index\\_de](http://www.kmuadmin.ch/kmucms/index_de)
- **Services for businesses**  
<http://www.ch.ch/unternehmen/index.html?lang=en>



### Government on the net

In January 2007, the Federal Council adopted its eGovernment strategy, though to date, few people have made use of eGovernment services. Businesses are the most frequent users, as this cuts their administration costs, whereas private individuals tend to use the new services tax returns, for example. It therefore seems that people either do not know enough about the services available or that it is not straightforward enough. People are still having problems in their day-to-day dealings with it.



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eGovernment means using new information and communication technologies (ICT) with the aim of improving the quality and efficiency of public administrations – whether at federal, cantonal or local level. We anticipate that with these new eGovernment methods, communication with citizens and businesses, which is not always as smooth as it should be, will also be improved. But to achieve this, the administrative processes within and between the three levels of the Confederation, the cantons and the communes need to be reformed so that if someone moves from one location to another, for example, the commune concerned automatically receives the relevant information.



Where government operations are simplified and improved, their use, quality and transparency will improve for everyone involved. The concept of eGovernment regards citizens as independent partners. Citizens want to be able to get a dog licence, fishing permit, or fill in and file their tax returns, for example, quickly and easily. Thanks to the internet, they can do this from home at any time – regardless of office opening times and without having to know which authority in the Confederation, canton or commune is responsible. Furthermore, government must meet the needs of business, especially those of SMEs, which are different from the needs of private individuals.

Switzerland's national web portal, [www.ch.ch](http://www.ch.ch), is therefore geared to the needs of its citizens and businesses. It is structured by topic and target audience and provides information about all three levels of government (Confederation, cantons and communes) and their services. At the same time, users are kept up to date about the nature and scope of the electronic services provided by the government.

Government administration should act as a role model and enhance citizens' confidence in its services by offering the best possible guarantees in terms of privacy and data protection and by making decisions transparent. The new technologies (ICT) promote harmonisation, standardisation, data security and efficiency in government and at the same time they improve access for citizens, improve their participation and increase transparency. In so doing, it is also important to remove the barriers encountered by people with disabilities. Trust is based on understanding government processes and the potential risks. We therefore need to support users at all levels.



### Statement 1

«Bei der elektronischen Verwaltung geht es nicht nur um die Modernisierung der technologischen Infrastruktur, sondern vor allem um die Neugestaltung und Reorganisation der internen Abläufe auf allen Ebenen, bei Bund, Kanton und Gemeinde. Denn nur wenn wir wissen, was wir tun, und wie wir es tun, können wir die verlangten Leistungen erbringen und die Transparenz schaffen, die nötig ist, um in der globalisierten und immer komplexeren Welt der Zukunft bestehen zu können.»

AMR HUBER, Bundeskanzlei, Elektronischer Behördenverkehr

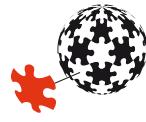
### Statement 2

«E-Government nutzt die Fortschritte der Technik sowie geänderte Verhaltensweisen der BürgerInnen, Unternehmen sowie der Verwaltung, um eine wirtschaftliche Abwicklung von Dienstleistungen zu ermöglichen, einen Beitrag zur Standortförderung zu leisten und den politischen Zusammenhalt zu festigen.

In den nächsten fünf Jahren sollen Privatpersonen und Unternehmen im Kanton St.Gallen einen schnelleren, unkomplizierteren und kostengünstigeren Zugang zu Dienstleistungen der Verwaltung erhalten. KMU und Wirtschaft sollen administrativ entlastet werden.

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*Für direkte Transaktionsmöglichkeiten mit BürgerInnen sowie zwischen den betroffenen Verwaltungseinheiten sollen die nötigen elektronischen Instrumente geschaffen werden. [.]»*

PETER SCHÖNENBERGER, Regierungsrat des Kantons St.Gallen

### **Statement 3**

*«De la donnée à la connaissance, véritable ressource stratégique de notre société, ce nouveau paradigme guide notre stratégie vers un écosystème, basé sur un référentiel e-society, ouvert, interopérable, flexible et centré sur le citoyen.»*

[http://ict.satw.ch/SPIP/article.php3?id\\_article=402](http://ict.satw.ch/SPIP/article.php3?id_article=402)

[http://www.ict21.ch/ecrire/?exec=articles?id\\_article=177](http://www.ict21.ch/ecrire/?exec=articles?id_article=177)

JEAN-MARIE LECLERC, Centre des technologies de l'information (CTI), Genève

### **Statement 4**

*«Die Schweizer Bevölkerung ist ausserordentlich anspruchsvoll. Was nicht hundertprozentig funktioniert, wie auf Qualitätsstufe des e-Banking, hat bei unseren BenutzerInnen keine Chance. Es kann daher nicht darum gehen, einfach möglichst schnell viele neue Applikationen einzuführen, wenn diese nicht gut sind.»*

CARL AUGUST ZEHNDER, ETH Zürich, ICTswitzerland, SATW

6

## **Links**

- **Contributions of the Participants**

<http://www.ict-21.ch/spip.php?rubrique55>

- **Documents and References**

<http://www.ict-21.ch/spip.php?rubrique9>

- **eGovernment strategy**

<http://www.bakom.ch/themen/infosociety/01688/index.html?lang=en>  
<http://internet.isb.admin.ch/themen/egovernment/00067/index.html?lang=en> (in German, French and Italian)

- **The Swiss portal**

<http://www.ch.ch/index.html?lang=en>

- **Trendbarometer «eGovernment» (in German)**

<http://www.e-government.bfh.ch/index.php?nav=375>



## Health and Healthcare

Gesundheit und Gesundheitswesen • Santé et système de santé •

Salute e servizi sanitari

### Efficiency and time are crucial

Even in healthcare, new information and communication technologies (ICT) have left their mark. Electronic healthcare (eHealth) makes it easier for people to get a second opinion. People who are chronically ill can send the information needed to monitor their illness (weight, blood pressure, etc.) from home. Access via internet is more convenient for patients as they no longer have to provide their name, address and health insurance details repeatedly when seeking treatment. Just as in other areas of the economy (banking, insurance, media, etc.), the introduction of new technologies requires a change in attitude and behaviour on the part of everyone involved: healthcare staff, health insurance companies and the population at large, both sick and healthy.

In the last few years, there has been a heated debate in the healthcare sector about the explosion in costs which is affecting health insurance premiums. There are still considerable opportunities for cutting costs by avoiding duplication particularly in the areas of prevention, savings quality and health promotion. The new communication technologies can help to improve processes and coordination and improve efficiency. Ultimately, those working in the healthcare and health insurance sector will benefit as much as patients.

After a serious accident, time is often critical when it comes to saving lives. If the emergency services have immediate access to the victim's key basic data, such as blood group, they can take the necessary action much more quickly and in a targeted manner. Health cards have already been introduced in other countries, such as Austria and France. Nevertheless, a number of precautions need to be taken to prevent any improper use of sensitive personal health details. At all stages in the system, patients need to have the final say as to who is permitted to access their personal details and under what circumstances (the right of individuals to determine the use of their private data). Particularly in the area of health, careful consideration must be given to issues of security and trust by all concerned.

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Consequently, eHealth has been made a top priority in the Federal Council's revised strategy (January 2006). The Confederation's main focus is as follows: between now and 2015, a personal electronic dossier will gradually be introduced for all patients. But these improvements can only be achieved if service providers (doctors, etc.) have access to relevant information about their patients, whatever the time or place. The dossier must be designed in such a way that data security, data protection and data sovereignty are ensured and that patient privacy is still safeguarded. Health insurance cards are expected to play a pioneering role in the implementation of this strategy, which is still the subject of lively debate.



### Statement 1

«Le Tecnologie dell'Informazione e della Comunicazione (ICT) applicate all'ambito sanitario facilitano la concertazione tra i diversi professionisti, favorendo una maggior efficacia ed efficienza degli interventi e diventando nel contempo un'occasione fondamentale di crescita professionale continua.

Le ICT sono alleate del cittadino, anche nella sua veste di paziente, fornendo le opportunità per renderlo più consapevole e partecipe delle decisioni riguardo il proprio stato di salute.»

PATRIZIA PESENTI, Consigliera di Stato, Ticino

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## Statement 2

«Der Patient der Zukunft erwartet eine überall abrufbare, qualitativ hochstehende und kostengerechte medizinische Leistung. Schon heute betreut Medgate täglich bis zu 1'500 Patienten per Telefon, Internet und Videokonferenz. Damit die Schweiz ein konkurrenzfähiger Wirtschaftsstandort bleibt, braucht es sowohl einen nationalen Standard für das elektronische Patientendossier als auch eine Angleichung der Schweizer Telemedizin an die internationalen Standards.»

Dr. med. ANDY FISCHER, Schweizer Zentrum für Telemedizin MEDGATE

## Statement 3

«Der Einsatz von ICT in der Medizin (eHealth) führt zu neuen Möglichkeiten der Prozessoptimierung und zu einer Qualitätsverbesserung bei der Patientenversorgung, was mit ein Anliegen der SATW-Leitung ist. Ihr gebührt grosse Anerkennung für das Engagement, denn dieses dient letztlich allen Bürgern und Patienten, auch in wirtschaftlicher Hinsicht.

ICT in der Patientenversorgung beinhaltet u.a. den rechtskonformen 24/7 Zugriff auf alle entscheidungsrelevanten Daten, ein Real-Time Datenmanagement und bewirkt eine Fachgruppen-, Länder- und Sprachgrenzen übergreifende Vernetzung aller involvierten Personen durch eine logische Interoperabilität. (medXchange-Metadatenbank) [ . . ]»

Dr. med. JOACHIM KELL, medXchange

## Statement 4

«eHealth ist keine Science Fiction, sondern eine Frage des gesunden Menschenverstandes! Es geht darum, sich an den Bedürfnissen der gesunden und kranken BürgerInnen auszurichten, mit zeitgemässen Mitteln unsere Strukturen und Prozesse für die Bewältigung der bereits heute erkennbaren logistischen und ökonomischen Herausforderungen fit zu machen. eHealth kann hier und jetzt umgesetzt werden – vorausgesetzt, der Wille zur Verbesserung unseres Gesundheitswesens ist ernsthaft vorhanden. Neue Wege entstehen, indem man sie geht!»

Dr. med. MARTIN D. DENZ, Swiss Society for Telemedicine and eHealth, European Health and Telematics Association, Brussels, COM ICT (SATW)



## Statement 5

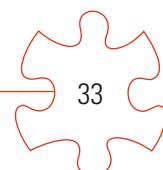
«Die Bürgerin und der Bürger müssen im Zentrum der eHealth Strategie stehen. Deren Nutzen und Interessen müssen bei der Zielsetzung klar zum Ausdruck kommen. Ich denke dabei unter anderem an die Entscheidungskompetenz bezüglich Datenzugang, die bei den Versicherten liegen muss. Zudem braucht eHealth ein klares rechtliches Umfeld. Bei der Finanzierung stellt sich die Frage, wer die Investitionen bezahlt, weil die Kosten nicht unbedingt dort entstehen, wo auch der Nutzen erfolgt.»

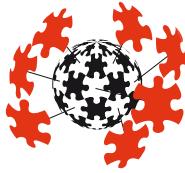
EDITH GRAF-LITSCHER, Nationalrätin, Patientenstelle Ostschweiz, Öffentliche Krankenkassen Schweiz (ÖKK)

7

## Links

- **Contributions of the Participants**  
<http://www.ict-21.ch/spip.php?rubrique58>
- **Documents and References**  
<http://www.ict-21.ch/spip.php?rubrique12>
- **eHealth strategy (in German, French and Italian)**  
<http://www.bag.admin.ch/themen/krankenversicherung/00305/03505/index.html?lang=de>





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## Glossary

**eDemocracy:** using information and communication technologies to simplify information and communications within and between authorities, citizens and businesses and other government institutions.

These new technologies make it easier for citizens to take part in political issues at all levels of government. Citizens may, for example, be asked to submit ideas electronically on shaping the public domain. Even consultation procedures (hearings) can be carried out electronically.

When talking about exercising political rights, the term **eVoting** is used. eVoting means voting electronically in elections and popular votes, and in future will include the possibility of adding digital signatures to referendums and initiatives, and submitting proposals for candidates in National Council elections.

**eGovernment, electronic government or electronic administration** means reorganising communications from and with government departments using modern information and communication technologies. eGovernment intensifies and promotes dialogue between the State and the people and makes it easier to carry out government business while still maintaining the normal communication channels. Citizens and businesses should be guided quickly to the relevant government office, without needing to have any prior knowledge, and should be able to reach the government official they need quickly and without difficulty (e.g. by using forms).

Developing eGovernment further will lead to **non-stop-government**. In non-stop-government, citizens and businesses will no longer have to go through countless government officials, but will get what they need automatically – for example, forms or directories – in the most practical and cost-efficient manner. In the longer term, non-stop-government will render administrative procedures «invisible».

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**eHealth** or electronic health means the use of information and communication technologies in healthcare to reduce the administrative burden (on doctors, health insurance funds, insurers) and to improve the quality of healthcare, both regionally and worldwide. Well-known examples of this are telemedicine or disease management (coordination of all measures for the optimal treatment of an illness).

**eLearning** (also online learning) is characterised by the use of new information and communication technologies in education. New forms of electronically-based project and group teaching supplement both traditional teaching and learning, as well as distance learning, which can be undertaken anytime and anywhere. Essentially, eLearning also makes professional training and professional development easier and satisfies the requirements of lifelong learning.

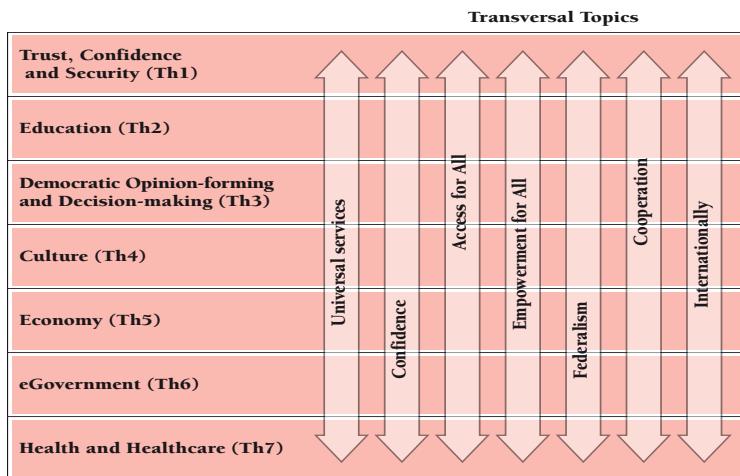
## General Links

- **Federal Council's Strategy for the Information Society (1998, 2006)**  
<http://www.bakom.ch/themen/infosociety/00695/index.html?lang=en>
- **Strategie «eGovernment» (January 2007)**  
<http://www.bakom.ch/themen/infosociety/01688/index.html?lang=en>
- **Strategie eHealth (December 2006 – June 2007)  
(in German, French and Italian)**  
<http://www.bakom.ch/themen/infosociety/01689/index.html?lang=en>  
<http://www.bag.admin.ch/themenkrankenversicherung/00305/03505/index.html?lang=en>
- **The education sector: The Public Private Partnership – «Schools on the Net»**  
<http://www.bakom.ch/themen/infosociety/01691/01745/index.html?lang=en>
- **Trust, Confidence and Security**  
<http://www.bakom.ch/themen/infosociety/01691/01710/index.html?lang=en>
- **The Swiss information society in figures**  
<http://www.bakom.ch/themen/infosociety/01692/index.html?lang=en>



## Organisation

### Grid for the Forum ICT 21 in Gerzensee



### Moderators (M) / Rapporteurs (R)

**Th1** (M): ROBERT HILTY (certifida, e-Trust International Association)  
(R): MARKUS FISCHER (SATW, ICTswitzerland)

**Th2** (M): LOUIS-JOSEPH FLEURY (SATW)  
(R): MICHAEL ANDERES (Direktion für Erziehung, Kultur und Sport, Freiburg)

**Th3** (M): VINZENS WYSS (Zürcher Hochschule Winterthur / Institut für Angewandte Medienwissenschaft)  
(R): PETER STÜCHELI-HERLACH (Zürcher Hochschule Winterthur / Institut für Angewandte Medienwissenschaft)

**Th4** (M): JÜRGEN ISLER (Schweizer Fernsehen / 3sat)  
(R): DANIEL BOOS (Digitale Allmend)



**Th5** (M): KARL HOPPLER (Bison-System AG)  
(R): PHILIPPE JAEGGLI (Bison-System AG)

**Th6** (M): FULVIO CACCIA (SATW, ICTswitzerland)  
(R): WOLF LUDWIG (comunica-ch)

**Th7** (M): MICHEL ROULET (TMI Technology Management, Innovation Consulting, SATW)  
(R): Dr. med. JOACHIM KELL (MedXchange)

## Organisational Committee Forum ICT 21

- SERGIO BELLUCCI (TA-SWISS)
- SABINE BRENNER (BAKOM)
- GUILLAUME CHENEVIÈRE (comunica-ch, Fondation Médias et Société)
- MARKUS FISCHER (SATW, ICTswitzerland)
- MATHIEU FLEURY (impressum – Die Schweizer Journalistinnen)
- MATHIAS KNAUER (Suisseculture, Plateforme suisse pour la diversité culturelle)
- WOLF LUDWIG (comunica-ch)
- RAYMOND MOREL (SATW, ICTswitzerland, IFIP)
- HANNA MURALT MÜLLER (Bundeskanzlei, SSAB)
- CHANTAL PEYER (comunica-ch, Brot für Alle (BFA))

In cooperation with

- GERTRUD LUTZ ZAMAN (Bundeskanzlei)
- PIERRE-PAOLO PUGNALE – PECUB (dessinateur philosophe)
- ROBERTO SEGALLA (HEP Bejune)

List of Participants

- see <http://www.ict-21.ch/spip.php?article137>



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## Patronage

SATW ([www.satw.ch](http://www.satw.ch))

Swiss Academy of Engineering Sciences,  
member of Swiss Academies of Arts and Sciences

**a<sup>+</sup>** ([www.akademien-schweiz.ch](http://www.akademien-schweiz.ch))

## Supporting organisations

Commission ICT de la SATW (<http://ict-satw.ch>)

ICTswitzerland ([www.ictswitzerland.ch](http://www.ictswitzerland.ch))  
Information and Communication Technology

ePower für die Schweiz! ([www.epower-initiative.ch](http://www.epower-initiative.ch))  
Eine parlamentarisch-wirtschaftliche Initiative

comunica-ch ([www.comunica-ch.net](http://www.comunica-ch.net))  
Swiss platform for the information society

TA-SWISS ([www.ta-swiss.ch](http://www.ta-swiss.ch))  
Centre for Technology Assessment

## Partners

Federal Office of Communications (OFCOM)  
<http://www.bakom.admin.ch>

Swiss Federal Archive (SFA)  
<http://www.bar.admin.ch>

Federal Chancellery (FC)  
<http://www.bk.admin.ch>



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Layout: Georges-Alain Dupanloup

Illustration: Pecub – <http://www.ict-21.ch/IMG/PENDANT-Forum/index.htm>

Cover and Printed by: SRO Kündig – Genève

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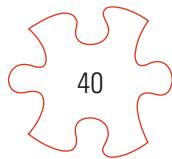
Impression:

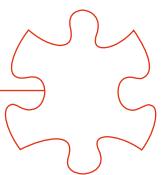
9000 German, 4000 French, 3000 Italian, 4000 English



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## Notes







[www.ictswitzerland.ch](http://www.ictswitzerland.ch)

## ICTswitzerland: the voice of ICT in Switzerland

thanks the following organisations for their support  
in the production of this booklet:



Schweizerischer Verband der Telekommunikation  
Association Suisse des Télécommunications  
Swiss Telecommunications Association

[www.asut.ch](http://www.asut.ch)



[www.gri.ch](http://www.gri.ch)

Schweizer Informatikgesellschaft  
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