

Electronic Government: Perspectives and Pitfalls of Online Administrative Procedure

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Abstract

Today, Electronic Government not only means to provide information for citizens on the web, but handle their requests for legal decisions online. Although this might primarily be seen as a technical revolution, it is argued here that this change potentially has major effects on the current legal architecture of administrative procedure as a whole, thereby generating social and political questions that should not be underestimated, since even constitutional and civil rights are touched by this process. It is the purpose of this paper to explore these effects and answer the question to what extent arising problems can be solved on a technical level, and where additional legislative measures should be taken. Although these observations begin with a focus on European and in particular Austrian law, the paper will elaborate on those legal aspects common to most Western democracies. By analyzing the legal basis of administrative procedure as well as technical aspects of systems already being implemented, critical issues are identified and suggestions are made on how to avoid these pitfalls.

1 From Magic to Reason

When in antique times a citizen needed to contact authorities in any legal issue, his request had to fulfill a set of strict formal procedural requirements. In ancient Rome such requests had to be stated verbally before the praetor, in predefined formulas called *actiones* which, in today's view might have more in common with magic spells than

legal procedure. Without sticking to the spell, i.e. having sufficient education himself or the resources to afford a lawyer, a citizen's request was rejected or even considered non-existent¹.

Albeit this situation changed in detail, its basic concept remained in practice on a broad basis until after the Unanimous Declaration of the United States of America in 1776 and the French Revolution in 1789, one of their major achievements being that all persons should be equal before law. As a consequence, no person should be withheld a right because of his origin, wealth or education. Another achievement of at least equal importance, prepared by prerevolutionary philosophy and implemented in the centuries to come, was that of democracy - that the real and only legitimate sovereign can and should be the citizens, electing their representatives. Neither should a citizen be restricted from the right to passively or actively participate in elections, nor should votes be counted differently².

¹Max Kaser, *Römisches Privatrecht*, 15th ed., Munich (1989), p. 34 ff. It should be mentioned that the distinction between *ius civile* and *ius publicum* was substantially different from today's: civil law was any case involving an individual's rights whereas public law meant legal regulatives enacted by an official authority, cf. *Gerhard Dulckeit/Fritz Schwartz/Wolfgang Waldstein*, *Römische Rechtsgeschichte*, 9th ed., Munich (1995), p. 50 ff. A perception similar to that of contemporary legal theory, where civil law are considered norms regulating relationships between citizens among each other and public law those dealing with the relationships between citizens and government was only beginning to grow in the late Classic Age of Roman jurisdiction (Ulp., Dig. 1, 1, 1, 2) and never fully developed.

²Although the Constitutional State and the concept of civil rights are derived from the in-

A precondition for the effectiveness of both principles is, of course, the availability, i.e. openness of the relevant information. Not knowing the law, one will not be able to judge his rights adequately and not knowing about past decisions of his representative, a citizen might elect him under false assumptions.

In comparison to what has been observed above, the internet is relatively young. Still, it is often considered as a means to perfection of democratic involvement in a civil society, its perceived and supposedly inherent openness being argued³. But this romantic perception might be based on incorrect assumptions: the current openness of a computer network is due to architectural, technical decisions and all but inherent. Potentially, digitally in general and the internet in particular offer more possibilities of control and limiting civil rights than any medium before in history⁴. The internet is just a means of communication - not necessarily of *open* communication. From this seemingly abstract observation, an important conclusion has to be drawn: the application of new technology alone will not take away the burden for society to shape democratic processes and to decide on the architectural principles of how itself should be governed.

fluence of humanism in philosophy and can be traced back through the Renaissance to ancient Greece, those ideas found their breakthrough on a broad basis of legal implementation only in the first half of the 20th century in many European countries, cf. *Heinrich Mitteis/Heinz Lieberich*, *Deutsche Rechtsgeschichte*, 19th ed., Munich (1992), p. 509 ff.

³*John P. Barlow*, *The Economy of Ideas* (1994), http://www.wired.com/wired/archive/2.03/economy.ideas_pr.html; *Eben Moglen*, *Anarchism Triumphant* (1999) http://emoglen.law.columbia.edu/my_pubs/anarchism.html

⁴*Vittorio Frosini*, *Law and Liberty in the Computer Age - The Harvard Papers*, Oslo (1995), p. 12; *Lawrence Lessig*, *Code and andere Gesetze des Cyberspace*, Berlin (2001), p. 366 = *Code and other Laws of Cyberspace*, New York (1999).

2 Administrative Procedure Today

But before we shall examine possible effects of administrative procedure going online, let us first take a brief look at its current state. The basis for the following observations will be the central parts of Austrian administrative procedural law⁵; parts that can be found throughout other European countries as well and therefore might be considered common aspects of administrative procedure⁶. What happens, according to the law, when a citizen wants to make a request, an application, a complaint or some other report to an administrative office?⁷

1. Making a request: This step usually initializes an administrative procedure (if the authority does not start investigations by itself) and law establishes an extremely low entry barrier: almost any way of informing administrative authorities will do. Oral, written, telephonic and electronic submissions are, among others explicitly mentioned. It is among the duties of the responsible officer to guide any parties involved through the procedure and to inform them which steps to take to secure their rights (also called the duty of *Manuduktion*⁸).
2. Investigation: Another important duty of the responsible authority is to re-

⁵The General Law on Administrative Procedure (AVG, Allgemeines Verwaltungsverfahrensgesetz), BGBl. 51/1991 (WV), was enacted for the first time in 1925 and republished in a consolidated version in 1991. It is regarded as an exemplary model for administrative procedure throughout Europe.

⁶This paper focuses on administrative procedure as a *process*. For an analysis of legal problems associated with electronic filing in administrative procedure, please see *Christian Martschin*, *Rechtsprobleme der Einführung des elektronischen Verwaltungsaktes*, in: ZfV 2001/1561, p. 746-755.

⁷For the following please see §§ 13, 13a, 37 and 18 AVG; for further details *Ludwig K. Adamovich/Bernd-Christian Funk*, *Allgemeines Verwaltungsrecht*, Vienna (1987), p. 395 ff; *Robert Walter/Heinz Mayer*, *Grundriß des österreichischen Verwaltungsverfahrenrechts*, 6th Ed., Vienna (1995), p. 107 ff.

⁸*manu ducere* (latin) = to lead one by the hand.

trieve and investigate all relevant information regarding a case. Investigations have to take place as soon as an officer receives any information that indicate a need for administrative actions.

3. Completion/Decision of the case: After the officer has achieved a *personal impression* of all circumstances relevant to the case, he has to decide it.

Note that these three steps do *not* constitute a detailed administrative workflow. Depending on the legal materia (e.g. Construction Law, Business Regulation Law etc.) there might be a variety of additional, special procedural regulations involved. So what is outlined here are only those procedural regulations that can be regarded as the least common denominator, because virtually every administrative case is based on them. Consequently, the view taken here on a general level has to be extended to the materia-specific regulations involved when implementing a real-world application if necessary. So the three phases described above are - in the order presented here - what law requires as a minimum from, either on a federal, regional or local administrative level. Therefore they have to be taken into account when defining an actual workflow⁹ in the real world.

On the other hand, current law is indifferent to some aspects which obviously will take

⁹Of course, the workflow paradigm is not the only possible point of view, neither should it be, cf. Klaus Lenk, "Business Process Re-Engineering": Sind diese Ansätze der Privatwirtschaft auf die öffentliche Verwaltung übertragbar? in: Roland Traummüller (Ed.), Geschäftsprozesse in öffentlichen Verwaltungen: Neugestaltung mit Informationstechnik, Heidelberg (1995), p. 27-43 (31 ff); *Idem*, Verwaltungsmodelle und Informatikleitbilder - Zur theoretischen Grundlegung der Verwaltungsinformatik, in: Klaus Lenk (Ed.), Informatik in Recht und Verwaltung: Entwicklung, Stand, Perspektiven, Heidelberg (1997), p. 39-56 (44 ff). For the even larger variety of possible viewpoints and influences to be taken into account when designing a complex interactive system please see Maria Wimmer, Designing Interactive Systems: Key Issues for a Holistic Approach, Linz (2000), p. 84 f and 176 ff. Nevertheless, as far as E-Government systems are considered, law will always be one of the determining factors for their general architecture.

place often. For example, a process of (informal) information gathering by the applicant will often precede the actual procedure. The authority will be willing to help here, because if a case evolves, it is obliged to do so anyway as a part of the official procedure. This informality might become problematic when an officer incorrectly advises an applicant not to take certain procedural steps, thereby - willingly or not - leading him undocumented in a wrong direction.

Some important aspects should be emphasized once more: The authority's legal possibilities of refusing to handle a request are limited; throughout the whole procedure, it is the the authority's duty to protect the interests of an applicant (and other parties possibly involved) without a legal counselor by informing them about their rights, his possible steps in the procedure and the consequences thereof. Last, but not least it is the authorities duty, to gather the relevant information for a decision.

It also should be noticed that these requirements are expressions of constitutional principles and civil rights, the most important of which involved here are the constitutional principle that any administrative action has to be based on and within the limits of law, the civil right to have a case decided by a legal judge and the civil right to be subject to a fair procedure¹⁰. These rights might be adapted in detail by procedural law, but they are not subject to substantial change or abolishment by Federal Law.

3 An Outline of Administrative Procedure, v3.0

After the early stage in history of a rather formal legal procedure being replaced by what might be called *legal procedure based on human rights and reasoning*, we are now approaching a change of maybe equal significance. But whereas the first revolution was obviously a philosophical and political one, what we are facing now is a technical change: What until now happened in

¹⁰Ludwig K. Adamovich/Bernd-Christian Funk, Allgemeines Verwaltungsrecht, p. 373 ff.

the authority's office and on paper will be packed into an interactive online application one can access from his home. If this is judged to be a good or a bad thing, a progress or a peril, is irrelevant - because it will happen inevitably. But is it really *only* a technical change?

Or will it bring political change, too? If it at least might, it is essential to be aware of what effects on law, society and philosophy it is about to be accompanied by. Without this awareness, society might fall victim to a technology that was not analyzed fully when it was time to do so, instead of determining and forming its own future.

The basic architecture of online administrative procedure will be composed at least of these elements¹¹:

1. A web form in which the applicant should provide as much information relevant to the case as possible.
2. The actual procedure starts when the form is submitted successfully to the authority. It should be possible for the applicant to follow the stages of the internal handling online.
3. Completion/Decision by the responsible officer should be supported electronically, e.g. by integration of juridical databases and templates for decisions.

¹¹The Department for Law and Informatics of the University of Salzburg is currently developing such applications in cooperation with the Cities of Bischofshofen (<http://www.bischofshofen.sbg.at>) and Neumarkt. Five more local communities have expressed their interest in collaborating in this Project, cf. *Dietmar Jahnell/Georg Jakob/Jürgen Zahrer*, E-Government in der Praxis - Die Stadtgemeinde Bischofshofen in: NOEO Wissenschaftsmagazin 01/2002, p. 14-18. The following three points are based on the requests by representatives of these cities in the planning phase, although they seem to be common on an international level, see e.g. *Bo Yang/Feng Sheng*, E-Government: The Case Study of Nanhai's E-Government in Practice, Proceedings of ICEB 2002, Beijing (2002), p. 420-424 (422).

4 Effects, Dangers

When mapping the three stages of online procedure to the previously mentioned legal requirements regarding an administrative workflow, the following problematic issues emerge:

4.1 Access

Current legislature allows a variety of ways of submitting applications *as suggested by the nature of the case*¹² and mentions electronic submission as only one possibility among others. The center of this point of view is the administrative office, everything that might reach the officer there, be it an applicant knocking on his door, a phonecall, an incoming fax or an e-mail potentially initializing an administrative case.

Electronic Government shifts this focus from an office in the real world to a web portal. Two questions arise immediately: What about citizens not owning a computer/an internet connection? And what should be the software requirements on the client side, if any? In other words: the current hype seems to suggest that online government will make life easier for all citizens. But how would react one if local authorities would suddenly handle only requests of persons arriving in dark-blue BMWs at the office, refusing to deal with request from anyone else?

4.2 The Nature of the Form

But any user interface, even a simple HTML-form, has to act at least a little bit like this to be of any use at all. The user's input has to be verified: a street name can not be accepted as a zip code and vice versa. It would also be desirable to check if a given address exists at all. A more sophisticated application might interface with the local inhabitants registry database to verify if the address a certain applicant provides is matching the place where he actually lives, thereby also providing additional proof that

¹²"[...] der Natur der Sache nach [...]", § 13 Abs. 1 AVG

what is being submitted is indeed a serious request, and not caused by a playing cat, trying to catch the computer's mouse.

Of course, the latter problem can be solved using digital signatures - but what if the user does not supply the signature in the required way? Will the application treat the request as non-existent? Is the internet leading us back to the days of ancient Rome, where one either had to know the magic spell or loose his rights?

In the early stage of Electronic Government research, Electronic Business was proposed as a obvious model, but with research advancing it was recognized that this perception might be inadequate if it would not be modified substantially and at least partly dropped¹³. In essence, this holds true from a lawyer's point of view, too. Whereas civil law provides just a basic framework with a lot of freedom for agreements and obligations that blossom to a large variety in the real world, administrative law - and in particular, the law of administrative procedure - does not leave as much room.

Therefore, it might be considered a little ironic that a user interface provided by administrative powers with the purpose of enabling citizens to submit requests resembles - in the eyes of a lawyer - a standardized mass contract with general trading conditions. An offer the consumer has either to accept or find another supplier - which in our case might be rather difficult, since government is a monopoly by definition. Apart from the technical standards applied, another dilemma is evolving here:

- Quite obviously, online requests have to be verified and also filtered by content, thereby potentially limiting citizens' access to authorities.

¹³Klaus Lenk, "Business Process Re-Engineering": Sind diese Ansätze der Privatwirtschaft auf die öffentliche Verwaltung übertragbar?, 35 ff; Roland Traummüller, Rechtsinformatik auf dem Weg ins nächste Jahrzehnt, in: Klaus Lenk (Ed.), Informatik in Recht und Verwaltung: Entwicklung, Stand, Perspektiven, Heidelberg (1997), p. 3-24 (14); see also Interview with Roland Traummüller, NOEO Wissenschaftsmagazin 02/2002, p. 18.

- Therefore, a way of legally controlling the filtering, as well as the forms itself should be found.

4.3 When to investigate

One of the major objectives of online administrative procedure and likely the main reason for its current popularity is the lean administration approach proposed by the New Public Management paradigm. This implies minimizing workload, rationalizing the process of achieving results, thereby achieving what recently seems to be one of the most popular goals of government - cutting costs¹⁴.

This is the reason why administrative offices when implementing E-Government want the applicant to provide as much information relevant to the case as possible. This alone is not necessarily a bad thing, since it enables a quick and cost-effective completion, which basically is a major benefit for the applicant, too - but it changes the sequence of steps in the procedure nevertheless in a quite remarkable way: a major part of the investigation is now done *before* a request is submitted, i.e. happening before the real procedure has even started. And it is done by the applicant himself, not by an officer, whose role is redefined as being more passive than in conventional procedure. But as of now, the transfer of responsibility from the deciding officer to the applicant is not really intended by law. The most obvious result is that a decision in an electronic procedure might be appealed successfully, if that procedure was not accompanied by sufficient ways of guiding the applicant through his case.

But appealing a decision is an issue of time and money, therefore only few appeals are filed. So, together with what has been said under 4.1, a possible outcome might be that an application is rejected, because a citizen is not able to do fulfill the duty of an administrative officer, who normally would be obliged by law to acquire a personal impression of the case by himself. This is another,

¹⁴Cf. Traummüller, Rechtsinformatik auf dem Weg ins nächste Jahrzehnt, p. 14 f.

maybe even more important reason, why the content of forms itself should be controlled.

4.4 Electronic Decision-Making?

Theoretically it might also be possible to generate a decision electronically from templates and text modules - at least in a large number of similar cases where the decision is either yes or no. But this mass of cases is reduced significantly when those cases are left out where a variety of conditions and additional obligations (for example to protect the interest of neighbor's in construction permission) are adjuncted to a positive decision and only those rare cases can be resolved electronically where everything comes down to the authority either fully rejecting or accepting a citizens request.

The problem arising here is that legal decision-making is quite intentionally a highly situative process: procedural requirements are a framework, centering around a human being deciding the case. The judge, or in our case the administrative officer, is granted a remarkable liberty by law when evaluating the proofs he bases his decision on. In administrative procedure, it is primarily up to him to collect and investigate that proof, but how he lets that proof influence his decision, i.e. if he finds a testimony believable or not, is largely up to him. To the amazement of non-lawyers, simple numerical logic can be left aside. As an extreme example, a judge might condemn a robber, even if his seven complices give him an alibi, only because he believes the testimonial of the victim. Today, society and law have more faith in the human's ability to further justice than in strict formalities.

But legal decision-making by machines pones more technical difficulties, problems that even fuzzy logic might be unable to solve. Fuzzy logic can help in situations where to many preconditions render a linear solution impossible or ineffective by approximation and by ignoring some of preconditions according to certain rules. But these preconditions either represent a large number of exactly measured values (e.g. outside temperature) or at least center around such properties (systolic blood pressure above 200 Torr)¹⁵. Aside from law's focus on

¹⁵Hans-Heinrich Bothe, Fuzzy Logic, 2nd ed.,

the human judge, legal Fuzziness is a.) textual instead of numerical and b.) even less exact, as terms like *reasonable*, *the nature of the case* etc. which are often used in laws (and decisions as well) show.

Consequently, while mathematical principles have been introduced relatively lately into legal thinking¹⁶, it has been argued that information technologies will hardly be capable of substituting the decision of a judge in its core, but - like in Computer Aided Design - might be valuable in supporting and modeling the process of human decision-making¹⁷.

Still, electronic decision support and expert systems in combination with templates for decisions might lure officers into reproducing the same decisions again and again, just because no applicant has yet taken the burden of appealing it. Administrative decisions are likely to become more "machine-generated" anyway. But at a second glance, this is not a special problem of E-Government: administrative offices have always kept their template collections on paper. An electronic system might render the use of templates more transparent and the templates more coherent.

5 Possible Solutions - the Application Side

5.1 Accessibility

Technical Accessibility

This issue has been identified by the European Union too, which in the Resolution on E-Government has defined accessibility

Berlin (1995), p. 3 ff.

¹⁶Leo Reisinger, Rechtsinformatik, Berlin (1977), 19 ff.

¹⁷Herbert Fiedler, Logische Struktur und informationstechnische Unterstützung richterlicher Rechtsprechung, in: Norbert Achterberg (Ed.) Rechtssprechungslehre, Köln (1986), S 311 - 320 (314 f); see also Georg Jakob, Die Forschungsarbeit von Tammelo und Schreiner zur Künstlichen Intelligenz, in: Erich Schweighofer/Thomas Menzel/Günther Kreuzbauer (Ed.), Tagungsband zu IRIS, dem Internationalen Symposium für Rechtsinformatik in Salzburg (to be published July 2002).

as one of the three major points for evaluating successful E-Government projects¹⁸. It can be dealt with relatively easy: first of all, applications have to be platform independent. Therefore, they have to be designed as server-side webservice. In this context, platform independency does also mean browser independency, so adherence to the standards defined by the World Wide Web Consortium¹⁹ is a must and the use of browser-specific extensions has to be avoided.

Avoiding proprietary specifications is even more important regarding encryption and digital signatures: those should be based on open standards²⁰ not only for security reasons, but for the requirement to make governmental services available to every citizen. Whereas for a company, it can be a desirable marketing goal to reach only those target groups with a certain technical equipment and bleeding edge hard- and software of a certain brand, for a Government Institution it is imperative to orient its services on common denominators²¹, so that even not up-to-date versions of Microsoft Windows, MacOS and Linux (and others) have to be supported as well as any browser capable of SSL connections²².

For making online services available for those who do not have a computer or an internet connection of their own, public terminals should be provided in administrative buildings. At least an adequate percentage of those should also be accessible for disabled citizens. In general, interface design

should be aware of accessibility issues, e.g. colors and fonts should be chosen so that additional difficulties for people with a weakened sight are avoided, voice-enabled applications should be introduced as soon as possible etc.

Accessibility of Information

Since one of the main tasks of E-Government applications is lean administration, which in this case is achieved by transferring workload from the officer to the citizen, the necessary information has to be available *online*, too. It is not sufficient to provide documents that have to be public, e.g. a city senate's protocols, only in libraries or basements of administrative buildings anymore; they have to be accessible through the web, and full-text searchable where appropriate.

It is interesting to observe that some offices seem to object the idea of putting on the web even such documents that have to be made available to the public anyway²³, because here the internet is evidently tearing down the last entry barrier by enabling citizens to search documents from their home instead of requesting them from an officer one by one.

Preferably, that information should be available via online-databases in phase prior to implementing electronic legal procedure, so citizens are able to get accustomed to handle that information as soon as possible.

5.2 More than Userfriendly

A negative example of an immensely rich amount of legal information presented in a way and with an interface that is almost unusable without special knowledge is the database of European law, CELEX, which from the beginning on was designed as a pure system for lawyers, administrative officers, judges and other people with a presumably firm legal background. But as the

¹⁸Resolution on E- Government, 8th Meeting of european ministers of the public service and administration, 7 November 2000 - Strasbourg.

¹⁹<http://www.w3c.org>

²⁰The sponsorship of the OpenPGP-compliant GnuPG by the German Federal Government can be taken as an example here, <http://www.gnupg.de/start.html>

²¹Basically the same conclusion is also drawn by *Christian Bock*, who also mentions laws against unfair competition in this context, E-Government und Recht, in: Michael Gisler/Dieter Spahni (Ed.), E-Government: eine Standortbestimmung, 2nd ed., Bern (2001), p. 155-177 (168 f).

²²Certain services have to be provided that way for security and privacy reasons, *Dietmar Jahn/Georg Jakob/Jürgen Zahrer*, E-Government in der Praxis - Die Stadtgemeinde Bischofshofen, p. 15 ff.

²³The Machiavellian principle of obscurity being a virtue of government still seems to intact here, cf. *Niccolo Machiavelli*, Il Principe, Florence (1532), XVIII (reprint, Stuttgart 1986, 1999, p. 137).

applicant gets assigned a more active role in administrative procedure, legal information has to be presented in a more commonly understandable way. The user interface should be as simple and self-explaining as possible to avoid any further complication and limit the need for additional explanations.

Userfriendliness is often regarded as an additional service, supposed to motivate citizens to switch to online services rather sooner than later, when in reality it is much more: a legal imperative, derived from the officers duty to help and consult the citizen during procedure. This requirement is so fundamental, that what today is considered userfriendly might not be enough at all. Userfriendliness has to be replaced by real intuitivity. This might prove to be the biggest obstacle on the way, since not only the usability of an interface has to be guaranteed, but also various legal issues have to be presented in an understandable way.

Most likely, the most efficient way will be to additionally host discussion boards, to hold online office hours via instant messaging and to consult officers via e-mail, thereby creating a collaborative working environment for officers and parties involved, albeit implementation of these measures will lower short term cost-cutting effects of entire systems significantly.

Accessibility and userfriendliness can be targeted together by the creation of one-stop online portals²⁴ but this is not a magic bullet either: aside from suffering one of the most dangerous security holes by design - being a single point of failure - administration takes place at least on a federal, on a regional and on a local level. Experience shows, that the respective authorities and institutions are afraid of the loss of autonomy, influence, power and last but not least that they are likely to face budget cuts when participating in solutions developed by the federal government. A negative side effect of that fear are a lot of local communities reinventing their own flavors of the wheel.

²⁴Maria Wimmer, E-Government im Trend der Verwaltungsinformatik, in: Erich Schweighofer/Thomas Menzel (Ed.), Auf dem Weg zur ePerson, Vienna (2001), p. 249-255 (254).

5.3 Human Decision-Making

As it has been observed above under 4.4, law itself *requires* human beings with a special expertise, i.e. judges or administrative officers to solve and decide cases. Current legislature focuses on the human factor of deciding in so many ways that an electronic judge to really replace a human would require changes to the very architecture of law and legal theory, which are so substantial that they are beyond the scope of this paper²⁵. But what should be stressed here once more is that legal procedure is *intentionally* a situative process focused on the interaction of human individuals and cannot be replaced by the syntactic logic of automation²⁶ easily.

So application design in E-Government not only has to be aware that it should not replace, but support and even encourage an autonomous decision by the administrative officer. A key to the latter might be to integrate a template system into the officer's user interface that presents him with more than two possibilities of formulating his decision. But the most important aspect is that the decision itself to either reject or fulfill a citizens request should be entirely left to the human representative of the authority. Since the extensive (re)use of templates in legal decisions is a phenomenon not unique to electronic offices, such a system might even have the improving effect of rendering administrative decisions more human by enabling officers to concentrate on the most important part of their work - getting a personal impression of all aspects relevant to the case and deciding it accordingly.

This is where the most positive aspect of stripping down the officers workload to its essence might be gained. Getting the citizen more involved in procedure, obliging him to provide those informations furthering his interests, assigning him a more responsi-

²⁵*De lege lata*, an electronic judge is simply illegal. For more details on this aspect, please see Georg Jakob, Die Forschungsarbeit von Tammo und Schreiner zur Künstlichen Intelligenz (to be published July 2002).

²⁶Friedrich Lachmayer, Der pragmatische Kontext der Rechtsinformatik, in: Erich Schweighofer/Thomas Menzel (Ed.), E-Commerce and E-Government, Vienna (2000), p. 187-202 (198).

ble role leaves more room for the officer to do the actual legal evaluation. If different offices are connected via internal messaging systems or discussion boards, brainstorming sessions on a regular basis could be held and the expertise of officers furthered at a relatively low additional cost. Together, these measures might indeed be able to further justice.

6 Legal Conclusions

Throughout this discussion, the following issues, which can and should not be left to technical implementation on a case by case basis, but have to be dealt with by the legislative power have emerged:

- The use of open standards should be required explicitly (not only implicitly) by law and respective projects should be funded accordingly.
- General directives for user interface design in E-Government have to be created and accompanied by a flexible legal framework for agreements between different levels of administrative authorities on user interface standards. On the officer's side, the encouraging of human deciding has to be taken into account, too.
- Standards and possibly templates for XML-applications on the regional and local level have to be established. As of now, many XML-documents are not as viewer-independent as the language itself would allow. Whereas paper, according to a common saying is patient, data formats are also crucial when archiving decisions (try to open a document saved with a word-processor of the eighties with a more recent program).
- A mechanism of legal control regarding the content of of online forms, similar to that of generalized trading terms via consumer protection laws, has to be established as well.
- The problem of the citizen doing the officers work has to be recognized by

legislators and dealt with accordingly, i.e. by legally defining which of the methods of online legal support mentioned above must be provided as a minimum.

- For a period of at least a decade, the old-fashioned methods of non-electronic handling of administrative cases have to remain as an alternative and backup in those fields where electronic procedure is introduced.

7 A Technical and Legal Framework enabling E-Government

Although this examination was started from a rather skeptic point of view, it has been shown that law and technology together might be able to benefit from each other in the course of implementing electronic administrative procedure on a broad scale. On one hand, adaption of existing law and enacting of new regulations is necessary to enable the switch from conventional to electronic procedure. When implementing systems today, this issue has to be

On the other hand, it has been an unaccomplished task for decades, to unify and to standardize procedural law in different administrative materias, to render administrative procedure more efficient and decisions more transparent²⁷. The requirements of the digital revolution, when dealt with consciously, might help to finally achieve these goals. The key metaphor for this vision should be technology as a container route, where different, but standardized containers hold the variety of administrative cases, centering around human beings: the citizen and the decision of a human officer²⁸. In this metaphor, the law is represented by the rails, which define the direction in which to go.

²⁷Ludwig Adamovich/Bernd-Christian Funk, *Allgemeines Verwaltungsrecht*, p. 375.

²⁸These human aspects have also been pointed out in the final report of a study for the Austrian Federal Chancellery by *Georg Aichholzer/Rupert Schmutzer*, *E-Government - Elektronische Informationsdienste auf Bundesebene in Österreich*, Vienna (1999), p. 19.

By creating an environment involving the citizen more in his own case and at the same time enabling the officer to do more and better actual legal work, collaboration can and should be what administrative procedure is based upon in the future. If an approach as the one outlined here is taken, this might not only lead to more transparency and justice, but render society more self-organizing as a whole.