

Asian Medical Nomenclature Debates Position Paper

The Role of Standards in the Transmission of
Chinese Medical Information

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I am a major partner of Redwing Book Company, Inc. and Publisher of the
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I wish to talk about standards and their role in the transmission of information in Chinese medical regulation, education, practice and commerce. Before I do, however, I would like to discuss standards in a more generic context.

Standardization is a concept that is greatly misunderstood. People tend to think of a standard as a set of rules that everyone is forced to apply. People also tend to think that standardization of the English terminology of Chinese medicine means choosing one equivalent for each Chinese term, and forcing everyone use that term. Western practitioners are resistant to the idea of standardization—of terminology or anything else—because they fear that it goes against what they consider to be the “spirit of Chinese medicine,” which is individual and holistic. They see standardization as limiting their freedom of choice. Excellent ideas like the “Council of Oriental Medical Publishers” (C.O.M.P.) have been poorly received because of this misimpression.

I would like to show you that in the real world, standardization does not mean a single set of rules imposed by a single authority. The actual practice is quite different. In many cases standardization is the existence of multiple implementations that are carefully interfaced with each other. It does not limit personal preferences. In fact, an “Open Standard” gives individuals a maximum freedom of choice. The only people limited by an Open Standard are those who would impose a standard for their own benefit. Like the rule of law, standards avoid capricious and arbitrary controls. A term standard is not a list of words you must use but a method for linking your words to those of others.

The Open Source software movement (<http://perens.com/OpenStandards/Definition.html>) has an excellent discussion of Open Standards:

An Open Standard is more than just a specification. The principles behind the standard, and the practice of offering and operating the standard, are what make the standard Open.

Principles

1. Availability

Open Standards are available for all to read and implement.

2. Maximize End-User Choice

Open Standards create a fair, competitive market for implementations of the standard. They do not lock the customer in to a particular vendor or group.

3. No Royalty

Open Standards are free for all to *implement*, with no royalty or fee. *Certification* of compliance by the standards organization may involve a fee.

4. No Discrimination

Open Standards and the organizations that administer them do not favor one implementer over another for any reason other than the technical standards compliance of a vendor's implementation. Certification organizations must provide a path for low and zero-cost implementations to be validated, but may also provide enhanced certification services.

5. Extension or Subset

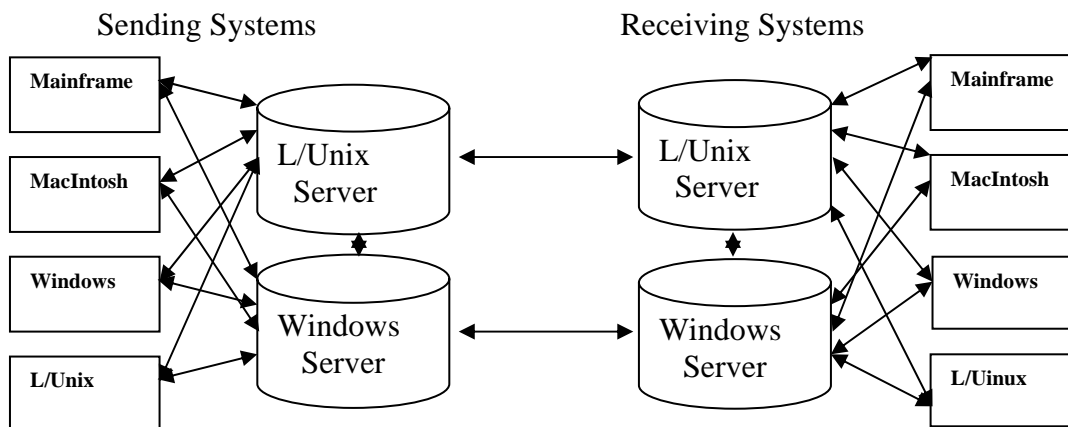
Implementations of Open Standards may be extended, or offered in subset form. However, certification organizations may decline to certify subset implementations, and may place requirements upon extensions (see *Predatory Practices*).

6. Predatory Practices

Open Standards may employ license terms that protect against subversion of the standard by *embrace-and-extend* tactics. The licenses attached to the standard may require the publication of reference information for extensions, and a license for all others to create, distribute, and sell software that is compatible with the extensions. An Open Standard may not otherwise prohibit extensions.

While the language of these principles is that of the software developer, if you change “vendor” to “publisher,” and “predatory practices” to “arbitrary exclusivity,” you can see that these principles are equally appropriate for information providers. Someone, anyone, who offers Chinese medical information, is protected by the standard because everything they need is open and available. The user of Chinese medical information is protected because the standard insures that all information can be accurately accessed and verified.

The internet provides a familiar example that shows how open standards allow information transmission to evolve in an open and cooperative manner. Here is what the internet looks like as a generic image:



On the sending side there are many, many different operating systems and communications programs. Yet, every one of those programs can connect to any server, any service provider. All service providers and all server systems can exchange data with all other providers and systems. The same is true on the receiving side. This is a perfectly inter-connected network. Of course, in the real world the diagram is much more complex. Not only are there many more personal and server operating systems than those shown but each of the interconnections is complex. Nonetheless, any device can be fit into the system because there are published, technically complete and shared standards for each connection. Any software writer can fit their application to the system. No manufacturer can control any user’s choices. Nothing makes this clearer than

the fact that to achieve control of the internet the large telecom companies (the arrows in the middle) need congressional legislation to over-ride the “net neutrality” standard, thus creating chargeable services for their own benefit. In short, it takes arbitrary action in favor of powerful insiders to break an open standard.

How Is All This Possible?

This open, perfectly interconnected network is possible because there are standards, because these standards are open, available to anyone and controlled by standards agencies cooperatively developed and funded by commercial and academic institutions. In addition to the technical facility necessary to accurate, reliable communications, standards have allowed for contributions from many people. These contributions helped the internet grow quickly, serving vastly different societies at a relatively low cost. In Congressman John Conyers words:

The reason the internet has been so successful is that it may well be the most egalitarian medium ever known to man.

The primary benefits are:

1. Equal access for all
2. Incentives to investment in hardware and software development,
3. Elimination of monopoly control by a dominant entity,
4. Preservation of less capitalized and newer entities,
5. Preservation of minority and niche systems,
6. Greater stability for users,
7. Lowered development costs for everyone,
8. Easier “roll-out” of improvements.
9. Technical stability.

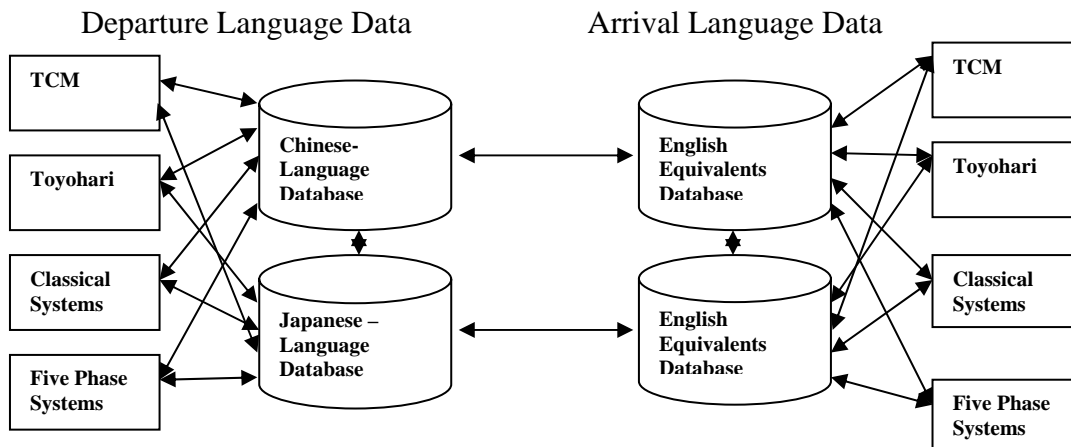
Closed systems, on the other hand, retard development and investment, restrain trade in favor of arbitrarily selected parties, and reduce the options available to individuals. As regards computing systems, Microsoft’s proprietary standards are a valid example. Because the information necessary for software developers to manage aspects of the Windows operating system are available only to those whom Microsoft selects, broad areas of software development have been dominated by Microsoft. The famous court case against the integration of Internet Explorer with the Windows operating system was essentially an attempt to remedy the restraint on competition achieved through secret technical standards.

Information that cannot be traced to its sources, private methods and terms, are a closed system, just as hidden from scrutiny as a network controlled by a secret technology.

The Role of Open Standards

Standards play an equalizing, competition-engendering role in many aspects of computing. However, they also play this role in virtually every aspect of life that is free of dominant party

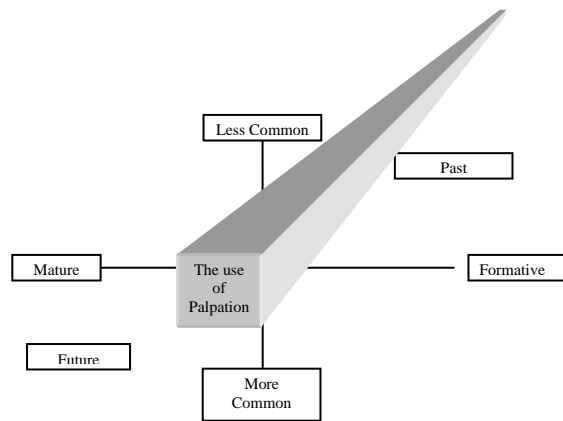
control. In the context of Chinese medicine, we could modify the internet connection diagram thus:



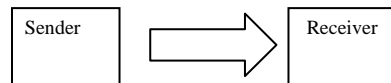
On the sending side, information in source languages like Chinese can be selected by individuals' choices. The same is true for the arrival language. Writers are free to choose what they consider important. However, if the relationship between the departure language data and the arrival language is nonexistent or obscure, only the writer knows what they have selected to transmit. It is hidden standard. You and I, the recipients of the information, are entirely dependent on the writer.

Obviously, the parallel diagram is also a considerable simplification. For the sake of the illustration, I have neglected other Asian languages such as Korean or Vietnamese. Chinese medical systems also come in many more varieties than the diagram shows but none of those complexities exceed the model of interconnection here illustrated. When any of the relationships between the essential data become proprietary, or are simply lost by virtue of being unavailable, the interconnections break down. If the relationship between the Chinese language database and the English equivalents database is obscure, there is no way to know how the English text is related to the Chinese text. Remove the double-ended arrows in the middle of the diagram and the Chinese medical information network becomes just as arbitrary as an internet where someone else decides what you and I may say to one another.

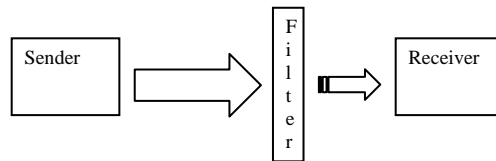
Furthermore, the systems represented by the double-ended interconnecting arrows in this model are derived from human behaviors over time, rather than through a one-time technical specification. Chinese medicine is an experiential art that has formed through practical experience in different times and places. It has not been derived from a single line of logic. Neither is it rigorously consistent or stagnant. Thus, openness is even more important because of Chinese medicine's variety. For example, if we look at any one concept in Chinese medicine, we see that it is multivariable. Any concept in Chinese medicine can be simultaneously described by its state of historical development (between formative and mature), by its relative predominance within a given system (from less common to more common) and by its station on the time line of Chinese medical history. In the following illustration, we see that the use of palpation has become both more mature and more common in the present.



Yet, even this is not the whole story. Theoretically, data or information transmission is a relatively straightforward process:



In reality, there are “filters” that modify the transmission:



In system such as the internet, a filter might be a firewall, a program that examines arriving data for its source or destination and permits or disallows further transmission. Human exchange, whether written or oral, is filtered by subjective qualities such as audience expectations, fixed opinions, and philosophical biases. Writers may filter information based on their personal experience; publishers may filter information from economic concerns. In the term discussions that have taken place thus far, the role of filtering has been only partially recognized. The idea that one translator views the value of Chinese information differently than another has typically been discussed in terms of “clinical” as opposed to “academic” translation, or as a matter of who is right or wrong. These debates have been circular, returning to the same arguments (and even the same words) over and over again. This is because the notions of “clinical” and “academic” are inadequate for understanding how Chinese medical information is filtered in transmission and because these arguments have focused on terms as words, not as concepts.

Information Filtering

How do we shed light on this problem? If there were an open standard where writers presented their lists of English equivalents for Chinese concepts, we could compare those lists and read the decisions behind the implementers’ choices. This would be very valuable to teachers because they could know whether any particular text fit their curriculum needs. This would be valuable

to students for the same reason. Clinicians could easily decide what literature was likely to have the information and the level of detail they needed. However, because there is no open standard, the problem is much more complex and very significant filtering goes unrecognized.

First, there is filtering at the concept level. Concept filtering is the selection of what Chinese medical ideas are worth “mapping” between the source language and English (or any other arrival language). Like a sieve through which some things pass and others do not, a concept filter changes what the eventual reader receives. The decision whether or not to preserve a Chinese medical concept in translation is more or less a decision whether or not to assign it a consistent English equivalent by which it can be reliably recognized. Thus, comparing term lists is a very direct and useful way to understand what a translator, or the developer of a translation approach, considers worthwhile. It is also a practical way to understand a translator or writer’s interests. A few clinically relevant examples should suffice.

Traditional Chinese medicine has a variety of patterns of swelling that are often obscured by the use of the English term “edema.” Edema in Chinese medicine is actually several different traditional diseases, each of which has distinct causes, pathomechanisms, and treatments. A practitioner who is only familiar with the generic concept of edema will lack the ability to trace their patients’ complaints to a specific Chinese category, limiting the efficacy and safety of their treatments.

While the basic Chinese medical concept of water swelling does largely correspond to edema, water swelling is further differentiated into traditional disease categories such as “skin water,” and “wind water,” each of which have different manifestations and require different treatments. In addition, the Western concept of edema contains pathologies that do not correspond to the general category of water swelling in Chinese medicine. For example, the biomedical condition of toxic edema is not classified as water swelling in Chinese medicine and cannot be treated as such. In clinical education, the correspondence to “edema” is probably a useful example, but losing the practical clinical distinctions also hides time-tested clinical strategies. Somewhere, these practical differentiations must be learned. Otherwise, the T.C.M. learned in English will not be the T.C.M. known in Chinese. Simplifying the Chinese concept of water swelling into the Western notion of edema not only causes practitioners to lose valuable insights on potential treatments, it also has the potential to create errors in decision-making that can compromise patient safety.

Another example of a commonly simplified cluster of traditional diseases is revealed by the use of the term “spermatorrhea.” Spermatorrhea is often discussed in English texts as though it represents a specific state of pathology in Chinese medicine. In fact, Chinese medicine recognizes four distinct conditions of irregular seminal discharge. Because of this widespread simplification, few Western practitioners are aware of the applicable disease categories. This lack of knowledge causes many Westerners to speculate that spermatorrhea is not a disease but is instead a polite way of discussing masturbation. Thus, their therapeutic decisions are misdirected.

The four distinct disease categories of involuntary seminal discharge have nothing to do with masturbation, and each category represents distinct pathomechanisms and gradations of severity,

requiring widely differing treatment approaches. The four traditional diseases of involuntary loss of semen that are reduced to spermatorrhea are known as: 1) dream emission, 2) seminal emission without dreaming, 3) seminal efflux, and 4) great seminal discharge. Practitioners who only learn the simplified concept of “spermatorrhea” are unaware of the differing severity of these conditions, and often attribute every involuntary loss of semen to insecurity of kidney qi. In fact, seminal emission can occur because of effulgent sovereign and ministerial fire, heart vacuity and liver depression, insecurity of kidney qi, noninteraction of the heart and kidney, or spleen vacuity qi fall. Once again, we see that simplification of traditional disease concepts can only result in poor mastery of Chinese medicine. It also can result in gross clinical blunders that compromise patient care.

Examples of clinically significant simplifications abound in the English literature of Chinese medicine. For yet another example, consider the common Chinese medical concept of heart palpitations. While all students are familiar with heart palpitations, relatively few students realize that Chinese medicine differentiates two distinct types of palpitation. “Fright palpitations” are instigated by fright or an emotional stimulus. They are paroxysmal in nature. Fright palpitations are seen in both repletion and vacuity patterns. By contrast, “fearful throbbing” is a more severe and constant condition that is not triggered by emotional stimulus. Although associated with fear, fearful throbbing is not induced by fear; rather, its severity induces a sensation of fear in the patient. Unlike fright palpitations, fearful throbbing is only seen in vacuity patterns. Thus, these two distinct conditions differ in severity, causation, and treatment, yet any survey of licensed practitioners will quickly reveal that this clinical distinction has largely been lost in simplified teaching materials.

What we see in these examples is filtering of information based on how well it seems to fit with western perspectives and writers’ ideas of what their target audience is prepared to learn.

While issues of simplification are numerous and problematic, multiple Chinese concepts are also frequently merged as a result of biomedicalization. For example, to eliminate dampness in Chinese literature medicinals that “disinhibit dampness” are recommended. The notion of “disinhibiting dampness” (*li shi*) or “disinhibiting urine” (*li niao*) refers to releasing inhibition and promoting fluency of movement and activity. However, disinhibiting medicinals are often inappropriately translated as “diuretic agents,” a term that describes the specific pharmacologic action of inducing urination regardless of whether dampness or inhibited urination is present.

It is a fundamental notion in Chinese medicine that medicinals have different actions that express according to the state of the patient and the medicinals combined in a patient-centered formula. For example, *fu ling* (Poria) is considered to disinhibit urination as well as quiet the spirit. If it is prescribed in combination with spirit-quieting medicinals for a patient with insomnia, it does not disinhibit dampness. However, if Poria is combined with damp-disinhibiting medicinals for a patient suffering from water swelling, it will exert a damp-disinhibiting effect. While a diuretic agent unconditionally induces increased urine output in all subjects, this notion is not directly transferable to the Chinese medical concept of disinhibition, where the actions of a medicinal are dependent on the state of the individual and the combinations utilized in the entire formula.

As a consequence of this biomedicalization of therapeutic actions, many practitioners are unclear which dampness-disinhibiting medicinals actually exert a pharmacologically diuretic effect and which do not. At present, there is significant concern about the risk of herb-drug interactions, and diuretic herbs are considered to pose risks of additive interactions when combined with diuretic drugs. If traditional therapeutic mechanisms are passed through a filter that biases in favor of pharmacological actions, we lose the distinction between the differing approaches of Chinese and Western medicine. If we label both true diuretics and disinhibiting agents as diuretics through biomedical filtering, we lose the clarity and safety necessary for medical practice and appear pseudo-scientific in the eyes of the mainstream medical system.

These examples show the two primary filters by which clinically relevant concepts are altered in the transmission of Chinese medicine: biomedicalization and simplification. Concerned that Western readers will not be able to understand the natural metaphors and traditional theory of Chinese medicine, some authors have chosen to make traditional ideas appear more scientific. Other writers have chosen to omit various traditional concepts and disease categories because they believe that the complexity inherent in Chinese medical theory will limit the audience for their books. These decisions are theirs to make but with an open standard everyone would be better prepared to judge the value of those decisions. It is not that there should be no simplified presentations or no correspondences to biomedicine, it is that everyone should know what they are.

Content filtering is more difficult to assess than concept filtering. If a concept filter is a sieve through which only parts of an idea will pass, then a content filter is a sieve through which only parts of a body of knowledge may pass. Although comparisons of term lists will reveal what someone believes is worthy of transmission, term lists alone will not reveal what of a given source text, or a source body of knowledge, has been included or excluded. To illustrate the problem of content filtering, I have compared two descriptions of liver depression both of which are drawn from widely available books. One description follows the Chinese as precisely as possible (source orientation). The other was written for a student audience (target orientation).

I took the description of liver depression in **The Fundamentals of Chinese Medicine** and compared it to the equivalent description of liver qi stagnation in the new edition of **Foundations of Chinese Medicine** by breaking each description into statements of fact. There are far more differences than just the names for the same pattern. I defined a statement of fact as any claim, any sentence that said something about the subject. I matched those statements based on their agreement and quantified the differences by simple counts. (See: <http://www.paradigm-pubs.com/refs/LiverComp.pdf> for the details) The following table resulted:

Category of Fact	Fundamentals	Foundations
Number of fact statements	87	43
Facts not matched to the Chinese text	0	44
Number of Pathomechanism-related facts	29	15
Number of Treatment Principles	14	1
Number of Symptoms and Signs	6	10

Number of Western Medical Correspondences	4	1
Number of Pattern/Formula facts	7	2
Number of Materia Medica facts	3	0
Number of Aupuncture / Pattern facts	15	5
Number of Personal Observations	0	19

In **Foundations** only Symptoms and Signs appear more frequently than in the Chinese text, the entire difference being the inclusion of personal observations. There are no personal observations in the **Fundamentals** text, which is a significant clue as to the difference in transmission philosophy. In all other basic categories the information is richer in the Chinese sources. In other words, in the preparation of **Foundations** there have been specific decisions not to transmit elements of Chinese knowledge. In short, a content filter has been employed.

Based on simple quantification of the facts presented, it is clear that **Foundations** is a highly simplified text. A clear bias in favor of personal observations and a clear bias against Pathomechanisms, Treatment Principles and Aupuncture to Pattern relationships has been used in content selection. Internal medicine in terms of Materia Medica and Formula to Pattern relationships has been deliberately excluded. While you may agree with the content filtering in **Foundations**, what counts is that everyone understands how the content has been simplified so they are able to make their own decisions.

An open standard reveals both conceptual and content filtering through making term lists and transmission philosophies freely available. Teachers, students, clinicians and educators who know what lies behind the literature they are offered, are best able to choose what suits their needs.

Standardization as a Natural Process

While filtering in the development of Chinese medical information in English creates a complexity that is not present with rigorous analytic standards such as the fundamental “Transport Control Protocol / Internet Protocol” standard by which the internet functions, it does not change the essentials of Chinese medical transmission. In the simplest sense:

$$\text{Chinese (人)} = \text{English (human)}$$

There is a large database of Chinese medical data that is nearly this simple because existing standards have allowed standardization to occur naturally:

1. Acupuncture Points
2. Chinese Medicines
3. Materials and Methods

For example, I was recently at an academic conference where clinicians and scholars attended each other’s presentations. At one panel that I remember particularly well Toyohari practitioners interacted with scholars of classical Chinese, Chinese medical history, anthropology and linguistics, as well as T.C.M. writers and clinicians. During a discussion of a researcher’s

use of particular acupoints, each person used their own nomenclature, yet there was no misunderstanding. In other words, communication was not disrupted by the different recipient filters:

K1 = Gushing Spring = *yǒng quán* = Bubbling Spring = KI-1

The first point on the kidney channel has a physical referent that is known to anyone who shares in the professional knowledge of acupuncture because it has been standardized into a relatively small number of variants. The filters that produced these variant names are not so dense as to disguise the common source. Historically, those that were not transparent, or were otherwise inconvenient, have disappeared. This is also true of the nomenclature for medicinals:

苍朮 = *Cāng Zhú* = *Atractylodes Rhizoma* = *atractylodes root*

Since there are established standards exterior to our field for the relation of Pinyin to Chinese characters, the formation of Latin pharmaceutical names and for the formation of English names for those substances that do not already have common English names (e.g. “ginger”), the transmission of information is greatly enhanced. The natural process of standardization is well advanced. Whether “Kidney” is graphically emphasized by an initial capital or “kidney” is not, we can be sure that both refer at least to the same physical viscus. Interestingly, this is also true for a small list of words that describe “ideas” more than “realities.” “Meridian” and “channel,” may represent different philosophical emphases but in professional discourse, there is an insignificant probability of confusion.

In sum then, through the natural processes of use and the application of ready-made standards, some classes of nomenclature in English language Chinese medicine have already become standard enough that large groups of physical entities (e.g. flowers, seeds, stems, minerals, places on the body) have acquired standard names. While there are still more than one approach in common use, these variances have become publicly available and, in a sense, freely available because they have been used with enough consistency in a large enough body of work. Professional users have absorbed their inter-relations. As part of this process, certain names and ideas have effectively disappeared. For example, using “orbis” for the Chinese medical concept of an organ is essentially meaningless to those whose studies have commenced in recent years.

From looking at hard systems and the softer systems of Chinese medical nomenclature we can make some generalizations about significant aspects of English language term standardization:

1. They are public, meaning both that they are available and that they are not effectively the property of any one person or organization.
2. They are freely available, meaning both that you can acquire them at will and that they are not secret.
3. They have been used in a body of literature that has been found useful enough to have been absorbed into the professional knowledge base.

4. They have been reasonably consistent and used over a long period of time.

If we return to the benefits associated with open standards, we can see that all these apply. In fact, to some extent the natural process of standardization has effectively accomplished the advantages of open standards:

1. Equal access for all – anyone can acquire the rules for the formation of standardized nomenclature such as latin names.
2. Incentives to investment – because anyone can use any of the freely-available lists, anyone can offer their own products using names that are useful in classes, examinations and other texts.
3. Elimination of monopoly control by a dominant entity – for example, although herb companies do sponsor the use of their brand names in educational and clinical materials, a freely-available standard nomenclature prevents the highly capitalized brands from achieving overwhelming name recognition. In mainstream education, the use of brand nomenclature disqualifies a text for classroom use.
4. Preservation of less capitalized and newer entities – for example, new publishing companies have been able to offer new materia medicas and study guides using the standard medicinal nomenclature used in schools.
5. Preservation of minority and niche systems – for example, Japanese transliterations are not frequently used but anyone interested can link the Japanese to the Chinese and thus all other standards.
6. Greater stability for users – what students learn today they will be able to use tomorrow.
7. Lowered development costs for everyone – for example, anyone who writes or publishes can use the “Practical Dictionary” terminology without royalty, contract or limitation.
8. Easier “roll-out” of improvements – as can be seen with the new generation of materia medica, medicinal nomenclature is now effectively a single standard.
9. Technical Stability – Because they are open to scrutiny and available to many people, problems are more easily discovered and corrected.

Standardization is not simply one authority handing-down a terminological directive, but the natural process of a field codifying its experience; what we might call the “process of generic standardization.” A functional standard need not be a biblical directive (e.g. “thou shalt use deficiency”), but a criteria-based contribution to the field’s intellectual tools.

C.O.M.P. as a Standards Cooperative

The process of generic standardization was greatly supported by Bob Flaws and Honora Wolfe’s insightful funding of the meeting that led to the formation of the Council of Oriental Medical

Publishers (C.O.M.P.). Because the idea was not meaningful to every publisher or writer, C.O.M.P. has not progressed far beyond that first step; it is still the essential seed of a workable standards process. If participation in C.O.M.P. were extended to include professional organizations like A.A.O.M., and critically, the license testing boards such as N.C.A.A.O.M., it would become a functional standards agency. That agency would not certify one terminology over others, but would certify that the term implementations offered all met the same criteria. It would function to promulgate a standard and to make implementations of that standard freely available. The original C.O.M.P. code stated it thus:

The Code for The Council of Oriental Medical Publishers is a way to label books, articles and other Oriental medical materials such that readers know how the information was prepared, why its producers believe it to be accurate, and how they can cross reference its information to the work of other authors. The Code establishes a set of standard labels that anyone can use, whether or not they consider themselves members of C.O.M.P. It does not exclude any approach, approve any approach, or suggest that any translator is better than any other. In other words, the C.O.M.P. code is not a regulation or ruling. It does not concern what can and cannot be sold or used for any purpose. It is a voluntary trade convention that provides useful labels that anyone may apply.

C.O.M.P. has no formal membership, anyone who wishes to participate is welcome. The main product of the C.O.M.P. code is a set of labels that describe books and other information in Oriental medicine. These labels are distinguished by qualities of the writer or publisher's Stylebook. A Stylebook is a list of materials used to make intellectual works consistent. Thus, a Stylebook is not necessarily a book. For example, it may be a list of references. One publisher or writer may use more than one Stylebook. A Stylebook can be simple or it can be complex. For example, a sinologist's Stylebook could easily consist of several published books and articles that describe his or her approach to translation, the research on which that approach was based, samples of its application, and descriptions of the methods and logic behind its creation. Stylebooks can include reference books, terms lists and other tools. In sum, a Stylebook is a catalog of the resources two professionally trained translators would need to arrive at identical translations of the same text without consulting one another.

What would such a standard look like given the C.O.M.P. experience and what we have since learned? First, I think it must describe what each implementation of a term standard should provide. In my opinion, that statement should include:

1. *A statement of intent.* A detailed presentation of the implementer's notion of what their implementation accomplishes.

2. *A statement of scope.* A detailed presentation of the implementer's claim for what realm, genre, or element of the field's literature their implementation serves.

3. *A statement of procedure.* The implementer’s description of how term decisions are made, the criteria for choosing one term over another. Such a statement should also describe a process for dealing with the translation of new terms.

4. *A freely available term list.* A working list of English equivalents for a set of Chinese concepts that match the intent and scope the implementer claims.

Statement of Intent

The statement of intent is key to understanding the “why” of any particular implementation of an open standard. It describes the use for which a particular implementation is designed. For an examining authority such as N.C.C.A.O.M. this might be no more than a statement that their Chinese-English term list defines the concepts they may test and the English terms used to identify those concepts on their exam. For someone writing in a particularly narrow area, such a statement might be the description of a body of texts, the names of authors, or genres to which their term list applies. What the standard requires is a public description of intent sufficient for others to make a decision whether the implementation offered fits their purpose.

As far as Paradigm Publications is concerned, we see our **Practical Dictionary** (PD) terminology as a general purpose, generic, Stylebook for the translation of a broad range of Chinese medical literature, as well as a broad range of original writing about Chinese medicine. It is intended for an intellectual environment supported by “local glosses” – term lists specific to a book or article. We offer it for use by anyone. It is a multi-author, multi-publisher standard where local glosses (new, different, historically or technically specialized terms and explanations) provide flexibility and independence while promoting readers’ ability to access information accurately.

Statement of Scope

The statement of scope is of key import to understanding the who, when or where of a Stylebook. Since Chinese medical concepts have evolved through time, have had different “slants” for different authors or different schools of thought, in some situations specialized Chinese-English glosses may be worthwhile. In many instances, a local gloss detailing term definitions specific to a particular text or author will be sufficient. While terms with multiple definitions have not proven difficult to manage in the translation of a significant sample of Chinese medical literature, the development of indigenous western ideas about Chinese medicine is accelerating. Thus, the English equivalents of Chinese terms can accrue meanings that diverge from the Chinese sources. A statement of scope can clarify these developments for readers.

The scope of the PD terminology is that of the major monolingual Chinese language Chinese medical dictionaries. The CD version we distribute to translators who adopt PD terms for their work currently covers about 30,000 terms.

Statement of Procedure

Since a relatively small part of the Chinese medical literature in Chinese has been translated, it is inevitable that term lists will need to expand. Thus, a procedure for on-going linguistic research is necessary.

As regards the PD terms, this is something that is not so formally done. Local glosses have generally handled the introduction of new terms. Currently, the group of people central to the further development of the term set work together informally via the internet. Numerous papers and studies describe the approach well enough that multiple translators have been able to contribute terms. However, now that PD terms are used by writers who are not as well known to one another, it is likely that further growth will require a more formal peer system.

Freely Available Term List

“Freely available” does not necessarily mean “for free.” It does, and must mean, that there can be no arbitrary limits on who may have access to a term list that conforms to a field-wide standard. As a specific example, while I am free to charge for the **Practical Dictionary**, I am not free to demand that no rival publisher use those terms. Access is critical to the natural process of standardization. If the term sets adopted for license testing are secret, arbitrarily available, or just unpublished, this creates a franchise for the term list owner, a block to commercial access and intellectual development.

It is important to note that none are required to offer a freely available term list. If someone feels their interests are best served by keeping their term list private, that is their right. However, it is also the field’s right to say that a private list is not an acceptable foundation for educational literature. The field’s interests must supersede private interests and the commercial attractiveness of the education market could be a powerful incentive to openness. In my opinion, an ideal standard would specify a list of terms for which each implementer would provide their terms. This has distinct advantages. First, it specifies a minimum scope. For example, as noted before, as a start the concepts found on license examinations provide a very practical scope. Next, because other efforts such as those of the W.H.O. or S.A.T.C.M. include lists that reflect their assessment of which are the basic terms, list comparisons will help us understand content filtering. Finally, list comparisons also reveal concept filtering by showing what Chinese terms are or are not preserved in translation.

The PD terms list has been available in a number of forms, many of which were used to gather information and suggestions from people interested in standardization of a Chinese medical term set. Presently, there are two formal publications. **The Practical Dictionary of Chinese Medicine** is our commercial product covering 6,000 of the most used Chinese medical concepts. We also offer a CD Dictionary of 30,000 terms to translators applying the PD term set. Given the growing scope of the PD list, and the number of current contributors, the next editions are likely to be software based.

The Current State

At present, standardization is a "hot topic." There are currently four standardization processes of which I am aware:

1. The W.H.O. process. Two of my colleagues, Drs. Wiseman and Unschuld, have participated in the the W.H.O. process since its inception. At the last meeting in Degu Korea an English terminology was voted upon, largely by persons who do not speak English. I have not seen the resulting list. I do not know if the "elected" terms were later changed by a more principled process and to my knowledge the list has not yet been published. My impression of the W.H.O. communications I have read is that the participants are primarily interested in a terminology for representing Chinese medicine in biomedical journals. The W.H.O. term set is about 4,000 terms.

2. The World Federation of Chinese Medicine Societies (W.F.C.M.S.) acting as the agent of The State Administration of T.C.M (S.A.T.C.M.) recently held meetings in Beijing, P.R.C. What is important to note is that this conference was meant to forward the establishment of an English language terminology to be used by Chinese publishing companies, in particular, People's Medical Publishing House in their program to present 1,000 translations to the West. N.C.A.A.O.M. also participated in this conference. The S.A.T.C.M. term list numbers about 5,000 and has been published as **Chinese Terms in Traditional Chinese Medicine and Pharmacy** by Dr. Wang Kui and Zhu Jianping.

3. The A.A.O.M. Conference for which I have prepared this paper.

4. There will be a large international conference in Berlin early next year. Two lists, one for biomedically integrated literature and one for traditional literature, will be circulated to experts world wide who will be invited to participate in the development of a widely distributed standard. It is implicit in the organization of this conference that those who seek the scientization of T.C.M. and those who wish to transmit the traditional practices will never agree on terms because their frames of reference are incompatible. Someone who believes that the only valuable concepts in Chinese medicine are those that can be expressed as biomedical information is not interested in retaining natural metaphors. Thus, the thrust of this conference is implicitly that of open standards.

I believe there are two significant matters to consider. First, the participants in each of these processes understand that the U.S. and Australian examination and education authorities shape the largest market for Chinese medical texts. P.R.C. authorities and publishers are neither unaware of the English language market, nor the relatively minor role P.R.C. literature plays in western education. There is no doubt that they will increase their efforts to gain what they see as a necessary influence. Second, it is clear that there will be multiple standards available by the end of 2006 and that they are likely to remain for a long time.

As regards the first observation, it is important to note that this puts the U.S. and Australian national organizations in a very powerful position. As a bookseller, I would go so far as to say

that any term standard that does not recognize the need for license examinations will likely fail to inspire the production of a body of literature. This suggests that the appropriate interaction for the A.A.O.M., N.C.A.A.O.M, or a coalition of authorities is to assert a role in the process of standardization. (I am suggesting only examples of authorities, not a participant list.) C.O.M.P. offers an established platform and a history of compliant publishers and writers. Thus, it provides a nascent agency a head start. Once such an agency exists, it can invite representatives of the W.H.O. and the W.F.C.M.S. to present the principles of formation and the lists their processes derive. P.R.C. agencies are prepared to do so. The principles issued at the end of the Beijing conference are, like the forthcoming Berlin conference, are a step toward an open standard.

In other words, I suggest that the Western field assert its authority as regards its own terminological needs. I do not mean that westerners assert authority over Chinese medicine, only that English-speaking experts should play an authoritative role in these efforts.

As regards the second observation, it is my opinion that multiple standards will exist, perhaps permanently. While the natural process of standardization will eliminate those approaches that do not attract adherents, it is far too early to make predictions of permanence. Porkert's terms have not disappeared, people simply do not use them. For the largest part it will be people who know Chinese medical language and who seek to bring Chinese medical information into English who will determine what terms are used. My suggestion, therefore, is that the appropriate authorities issue a Chinese - English list of the concepts and the English terms used to identify those concepts on U.S. (and other national) license exams. Such a list would be used as the equivalent of the W.H.O. and S.A.T.C.M. lists in an initial standards process. I believe this will have the beneficial influence on investment I have previously described while accelerating the natural process of standardization.

If we consider that there are already defacto standards created by state and national licensing exams, and that these are the foundation of a very significant investment in curriculum, commercial products and student works, I think it becomes clear that nothing will change overnight. Different approaches to transmission will be with us for a long time. Thus, a policy that supports the natural process of standardization while providing the advantages of openness, availability and scrutiny, is the fairest and most advantageous policy for the field. In sum, I would like to encourage everyone who is interested in the development of our field to look at the process of standardization as a natural outcome of our need for accurate communication and learning.

We do not need an arbitrary standard, something imposed from “on high.” Neither do we need a hidden standard, something that closes primary markets to investment and development. We need an open standard that encourages competition and development.