# ANIA-CARING Connecting, Sharing, and Advancing Nursing Informatics

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**aNia**--**CaRING** is a nursing informatics organization advancing the delivery of quality healthcare through the integration of informatics in practice, education, administration, and research.

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#### BENEFITS OF MEMBERSHIP

- Access to a network of informatics professionals domestically and internationally,
- An active e-mail list with the option to have messages in digest format,
- · An online, searchable membership directory,
- Quarterly newsletter indexed in CINAHL, Thomson Gale & EBSCO Publishing,
- Job Bank with employer paid postings,
- Reduced rate for the Computers, Informatics, Nursing (CIN) journal,
- Annual aNIa--Caring conference,
- Membership in the Alliance for Nursing Informatics, www.allianceni.org, and
- Meetings and conferences around the nation and the world.

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## Worklists: Helping to Transform Nursing Care

Lisa Anne Bove, MSN, RN – BC, Helen Jesse, MS, RN

#### Abstract

One of the functions that has become a standard workflow tool in advanced clinical information systems today is the use of worklists or tasklists. Worklists are intended to provide the clinician with a summary of the interventions and reminders needed for a particular patient at a particular time. This article will address criteria to use when identifying what intervention or order should become a task, the benefits of worklists, how worklists can support transformation in patient care, and some next step activities to help you implement them at your facility.

#### Keywords

Worklist; transformation; implementation; task; tasklist;

#### Introduction

orklists and tasklists that have become a standard workflow tool in advanced clinical information systems today. Worklists are intended to provide the clinician with a summary of the interventions and reminders needed for a particular patient at a particular time. For example, medication administration records have been worklists for many years, first on paper and then electronically, where the intervention in this case was a medication that was due at a specific date and time. The nursing kardex was used as a starting point for a worklist, but it often needed to be supplemented by the nurse on each shift with the specific times that an intervention needed to be completed. In addition, the kardex usually didn't include all of the plan of care interventions and outcomes. Unlike the paper kardex, online worklists can combine physician - driven orders as well as care plan interventions into a single view of the interventions need for a specific patient. This can help the clinician determine what needs to be done for each patient based on problem and physician orders.

#### Welcome

from the Editor and Secretary

am excited to start the year with the first newsletter of 2010, and the first newsletter as editor. I am excited for several reasons; the first is because I believe our newly merged organization has the potential to make a huge impact on Nursing, Nursing Informatics, and Informatics. I am also excited because we have a great team of volunteers assisting with the news letter in several capacities: As peer reviewers, "proof readers" and contributors.

I encourage each of you to share your knowledge and experience by contributing. Our newsletter team will assist in fine tuning your document, and your peers will appreciate your contribution to the body of knowledge. The ANIA-CARING newsletter is a quarterly, peer reviewed publication, which is indexed in EBSCO Publishing, Thomas Gale, and CINAHL. This brings a level of prestige to those who contribute as well as the increasing the body of knowledge, and helped others learn and grow.

## MEMBER NEWS



By Susan K Newbold, PhD RN-BC FAAN FHIMSS

#### <mark>ania</mark>-caring <u>Membersihip Profile</u>

As of 03/10/2010, there are 2701 members from 50 states and 30 countries: Australia, Bermuda, Brazil, Canada, Chile, Croatia, England, Finland, Germany, India, Ireland, Israel, Jordan, Kuwait, Lebanon, Malaysia, New Zealand, Pakistan, Panama, Philippines, Qatar, Saudi Arabia, Singapore, Slovenia, South Korea, Spain, Taiwan, Thailand, UAE, USA.

#### <u>GRADUATFION</u>

#### BSN,

**Elizabeth A. Scully**, Galloway, NJ graduated with high honors from the University of Phoenix and was inducted into Sigma Theta Tau.

#### **Graduation MSN**

Irene L. Berger, Marengo, IL, Walden University, December 2009.

**Frank Boczar**, Pittsburgh, PA, University of Pittsburgh Informatics program graduated 12/2009 in nursing informatics.

Jericho A. Garcia, Bergenfield, NJ, University of Medicine and Dentistry, New Jersey, May 2009.

Marianne B. Schenk, Dayton, OH, Walden University, January 2010. She completed coursework with Walden University on 8/23/2009 with Commencement on Saturday, 1/23/2010.

**Brenda J. Smith**, Mount Desert, ME, MS in Nursing with focus on Healthcare Informatics from University of Colorado, July 2009.

#### Certification in Nursing Informatics from the American Nurses Credentialing Center (ANCC):

Davis R. Austria, New York, NY, December 18, 2009

Sharon Blackerby, Carrollton, TX, January 11, 2010

Phillis AJ Burcham, Land O' Lakes, FL, September 2009

#### Welcome from the Editor and Secretary

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Another benefit of contributing to the ANIA-CARING Newsletter is the possibility of winning the Maggie B. Cox Newsletter Award. This award, named after our past Editor and Board member Maggie Cox, is granted annually to encourage members to contribute by rewarding the winner with a substantial amount of money to help pay for a conference, to assist with certification exam fees, or any other board approved educational expense. The winner is determined by a panel who evaluates the following criteria:

- Timeliness and usefulness of the topic for ANIA-CARING members
- Organization and content (the topics are clearly explained and easy to follow)
- The article evokes reader interest
- Inclusion of scholarly support (content references, bibliography, suggested reading)
- Implications for Nursing and Healthcare informatics Practitioners

#### A Message from Linda Thede and Jeanne Sewell:

Jeanne Sewell and I want to thank Dr. Hunter for her review of our beginning informatics textbook, *Nursing and Informatics: Competencies and Applications*. This is the third edition, replacing the 2003 version. We understand Dr. Hunter's concern about the missing glossary. However, to keep the price down, and preserve the ability to update when necessary, it was decided to place the glossary online at http://dlthede.net/Informatics/Glossary.html. It is also accessible from the main Web page for the book at

http://dlthede.net/Informatics/Informatics.html. Because this field changes very rapidly the authors try to keep information current by updating the Web page and by the use of a blog at http://jeanne-sewell.blogspot.com/. Again, we appreciate the thoughtful, thorough, review of our text. The critiques are things that we will keep in mind as we work on the 4th edition to be published in 2013.

Sincerely, Linda Q. Thede and Jeanne P. Sewell

## Worklists: Helping to Transform Nursing Care

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Today, many vendors offer software that creates worklists beyond medication records to help manage patient care. These worklists are intended to help clinicians better manage their workload based on physician orders and/or plans of care. Worklists can identify the interventions needed for each patient with time and frequency so clinicians can better prioritize care throughout the day. Worklists can also help clinicians to electronically delegate tasks to others, such as patient care technicians. Worklists can also help respiratory therapists who often get assignments based on orders to organize staffing and document more efficiently.

Many nurses have not embraced this functionality as an effort to help them transform their patient care. A number of challenges face the implementation of this and other more advanced nursing documentation functions that may have added to the slow adoption of this functionality (Gugerty, 2006). There is a lot of variability in how tasklists are implemented and very little evidence-based knowledge to support tasklists. No one standard exists to help determine what tasks should be implemented in order to improve the nurses' workflow and

#### Worklists: Helping to Transform Nursing Care

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improve quality. In addition, findings from nursing time and motion studies found that nurses spend up to one-third of their time documenting their care (Gugerty, 2006, Hendrich, 2008). It is important that any nursing documentation functionality reduce rather than add to the time nurses spend on documentation. Tasklists are extended to help improve this workflow but no evidence supports this reduction at this time. The American Academy of Nursing Workforce Commission, with funding from The Robert Wood Johnson Foundation recently reported their findings from their Technology Drilldown (Bolton, 2008). Nurses reported that technology hasn't been adopted in a way that reaches its full potential, but do believe that technology can greatly reduce their burden. Worklists can support transformation in patient care.

#### **Understanding Automated Worklists**

A worklist can be defined as a list of interventions that either need to be completed or could be completed during a defined period of time, such as nursing shift. Worklists can assist clinicians to organize the patient's day around orders, procedures and interventions. In addition, worklists can help prevent errors of omission by maintaining a list of the outstanding interventions that cross between users and shifts. For the purpose of this article, items on a worklist will be referred to as tasks – whether they are orders, interventions, or procedures.

Tasks, while seemingly simple, come with a variety of subtle complexities that must be understood when they are to be used with a worklist. For example, the following are examples of the most frequent types of tasks.

#### **Table 1: Types of Tasks**

Types of Tasks		
Scheduled	Scheduled tasks have to be done on a regular schedule such as every eight hours. Examples of scheduled tasks include vital signs, dressing changes, and point of care (POC) testing.	
PRN (As Needed)	A PRN task is done when certain criteria are met. An example of a PRN task includes bath room privileges (BRP) and some dressing changes.	
Dependent	Dependent tasks occur only as a result of another intervention. An example of a dependent task could be a pain re-assessment or a vaccine on discharge	
Hanging	A hanging task is an intervention that needs to be done if an event occurs. Often these tasks need to be completed at some point during the patient's stay but cannot be scheduled. One example of a hanging task is a stool culture.	

In order for the worklist to be a meaningful tool to the clinician, the tasks are usually presented to the clinician in a time oriented manner. This time orientation should provide the clinician with a view of what tasks are due now, which tasks are coming due and which tasks are "late" or overdue if they are on a schedule. The system should identify a task as overdue if it has not been completed within a predefined amount of time. For example: medications are considered overdue if they have not been given one hour after it is scheduled time. This same

## MEMBER NEWS

Sue Fulginiti, Marlton, NJ, February 5, 2010

Rose C. Giannini, Kenosha, WI, December, 12, 2009

Phillip E. Miller, Anchorage, AK, November, 2009

Janell Rothe, Flagstaff, AZ, 2010, December 11 2009

Be A. Schafhauser, Orlando, FL. December 28, 2009

#### PUBLICATIONS:

Sana D. Marini, Beirut, LEBANON wrote: Marini, S.D., Hasman, A., Huijer, H.A, and Dimassi, H. (2010). Nurses' attitudes toward the use of the bar-coding medication administration system. *CIN: Computers, Informatics, Nursing*, 28(2), 112-123.

#### PRESENTATIONS:

**Bradley Smith**, Helena, MT. will present a workshop at NotaCon a Cleveland, OH "Creativity, Community and Technology conference" April 16. It is a multi session workshop on "Stealing from God" which enlightens people to the use of Biomimicry for solving current problems. See www.EndHack.com/biomimicry.html.

#### UPCOMING CONFERENCES:

April 22-24, 2010, ANIA-CARING Annual Conference. Westin Boston Waterfront, Boston, MA., www.ania-caring.org

May 12-14, 2011 ANIA-CARING Annual Conference. Las Vegas Hilton, Las Vegas, NV.

April 12-14, 2012 ANIA-CARING Annual Conference. Renaissance Orlando at SeaWorld<sup>®</sup>, Orlando, FL.

June 23-27, 2012, NI2012, Montreal

Canada, www.ni2012.org. Sponsored by the International Medical Informatics Association.

#### awards and Honors:

Ida Androwich, La Grange Park, IL, is the 2009 Nursing Informatics Leadership Award Recipient sponsored by HIMSS. The award was presented at the HIMSS Nursing Symposium February 28, 2010 in Atlanta, GA.

## MEMBER NEWS

- **Catherine Ivory**, Johnson City, TN was recognized March 2 at the awards & recognition banquet held in conjunction with the HIMSS Annual Conference in Atlanta, GA. She is the 2009 recipient of the Foundation of the Healthcare Information and Management Systems (HIMSS) PhD Scholarship.
- Ellen Makar, Orange, CT, and Sandra Ng, San Francisco, CA and were selected as the Alliance for Nursing Informatics (ANI) Emerging Leaders in Nursing Informatics. The program pairs nurses with mentors. Ellen is paired with Bonnie Westra and Carol Petersen. Sandra's mentors are Joyce Sensmeier and Curtis Dikes.
- Susan K. Newbold, Franklin, TN won the 2010 HITMEN and WOMEN award for improving patient care through health information technology. Specifically her work with ANIA-CARING was highlighted. The newly created award was sponsored by EMids, Healthcare IT News, Blue Cross Blue Shield Venture Partners, and Jefferies and presented at the Ritz Carlton, Atlanta, GA during HIMSS, March 2, 2010.

#### Health Data Management-CARING Nursing Information Technology Innovation Award 2010.

This is the fifth year that CARING has co-sponsored the award created by **Susan K. Newbold** and **Dana M. Womack**. See the March 2010 issue of Health Data Management for the winners that were just announced at HIMSS10 in Atlanta, GA. http://www.healthdatamanagement.com /issues/18\_3/nurses-point-the-way-toinnovation-39852-1.html

**Gold winner**: Martin's Point Health Care, Portland, ME for Coumadin management.

**Silver**: UPMC Presbyterian Shadyside, Pittsburgh for eRecord.

**Bronze:** Southcoast Hospitals Group, Fall River, MA, for Clinical Care Classification System.

Honorable Mention: Aurora Health Care, Milwaukee for Evidence-based knowledge.

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functionality can be used for non-medication tasks. For example, the completion of the Admission Database, which by regulatory requirements should be completed within the first twenty-four hours of an acute inpatient admission, could be created as a task. Often different clinicians document different parts of the admission database. In addition, some information is not readily available immediately upon admission. Using a task to remind clinicians to complete the admission database can help increase compliance.

Worklists organize data that's created from orders, plan of care or pathway or procedure and displayed into a single meaningful view. According to the Top 100 Hospitals in 2007 (Solovy, 2008), clinician worklists are one of the main benefits from the introduction of electronic workflow. A clinician worklist brings together one convenient place for all of the clinicians' activities for the upcoming shift, including physician orders, reminders and clinical interventions. These tasks can be checked off as they are completed, providing an easy way to monitor processes and to keep a formal record in place of completed activities for the patient. In addition, many worklists can be linked to electronic documentation which can help improve efficiencies of documentation. For example, some tasks just need to be documented as done. An example of this kind of task includes checking alarms, checking that the call bell is in reach, etc. Other tasks, such as a complex dressing change requires assessment data to be charted with the change. By linking the task with the documentation, redundancy (on paper this would require documenting the task done and documenting the assessment) is reduced. Many tasklists can be linked to charge entry so that when a task is marked completed, a charge can be generated. One example of a charge generating task is documenting a specialty bed. If the task is linked to charging, then when the nurse charts that the patient is on the bed, the charge is automatically generated.

#### Worklist Criteria

Since no standards exist for implementing worklists, there is a lot of variation across facilities in which tasks should be included. When implementing an electronic worklist, care should be taken to determine which orders, interventions and / or reminders should become a task. If every patient care standard, intervention and/ or physician order has an associated task, the worklist becomes overwhelming and meaningless. The worklist is intended as a tool to assist the clinician to prioritize and organize care for the patient, not a list of things that once completed mean that all of the patient's needs are met. To determine which tasks should be included, consider only defining tasks when activities are not patient care standards; that is something that does not happen all the time or all a regular basis on that unit. Define a task when the activity is unique to that patient rather than to all or most of the other patients on that unit, for example, a complex dressing change. Other criteria that can be used to determine if a task should be created include the determination of an intervention which is a very high risk for the patient if it doesn't get completed on time. For example antibiotic medications' pre- and post-levels need to be drawn at specific times. A reminder task would help the nurse not to miss the first opportunity to measure the blood levels. Another criterion for defining which orders should have a task is if the task only goes to a specific type of clinician. For example, patients are usually weighed by the patient care technician (PCT), but not every patient needs to be weighed every day. Adding a task for patient weigh based on clinical criteria or orders will help the PCT to know which patients need to be weighed each day.

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Tasks can also be created when there is no standard predictable schedule. For example, pain reassessment should be done 30 – 60 minutes after the administration of a pain medication. This is a task that is dependent on another intervention and is not specifically timed during the shift. Yet another example of this type of task is IV tubing changes, while there is a predictable schedule for this, the schedule varies for each patient. This task can serve as a reminder for the nurse that the IV tubing needs to be changed this shift for this specific patient. Tasks can also be created to implement compliance with an important policy, although tasks of this type should be used very judiciously. For example, falls risk and skin assessments are done regularly on patients at risk once the initial assessment are completed. A task could be generated if the patient meets the criteria, which can help improve assessment compliance and therefore reduce clinical risk.

#### Table 2: Task Criteria

 Criteria to Review When Determining Which Interventions Should Be Tasks

 Intervention that are not patient care standards

 Interventions that is unique to that patient (not standard practice for all patients)

 Interventions that is high risk

 Interventions is only done by a specific type of clinician

 Interventions that help improve compliance with an important policy

Tasks that are only included because of policy compliance should be limited as these tasks can often overwhelm the clinician and may lead clinicians to just document by rote, rather than document based on patients' needs. Tasks do not need to meet all the criteria to be included when implementing. Consensus by type of clinicians should be used to determine what tasks are included. In addition, Risk and Quality should be included when determining what tasks should be included to meet the specific facility's quality metrics.

#### **Benefits of Worklists**

Prior to clinical systems implementation, clinicians used paper worklists and/ or kardexs to help them determine what interventions are required for the patient during their shift. Worklists can help clinicians to organize and deliver care. Paper worklists or kardex, however, did not always contain all the information needed to help the clinician determined when to do the task and therefore many clinicians also kept a hand written to-do list. In addition, the paper worklist/ kardex were not updated real time throughout the clinicians shift if at all. Using electronic worklists can help replace the patient's kardex as well as the clinician's paper to-do list. A paper kardex was usually updated with new orders or at most once a shift whereas, an electronic worklist is updated real time as new orders are written or care plans are modified or added,

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## MEMBERS NEWS

- Honorable Mention: Middlesex Hospital, Middletown, CT for vaccination rates.
- Honorable Mention: Upper Chesapeake Health, Havre de Grace, MD for Training Strategy.
- Judges were: Susan K. Newbold, Dana M. Womack, Cindy Esser, Diana Boyer, and Gary Baldwin.

#### **BYTES OF INTERESTE**

Lawson sponsored the ANIA-CARING reception at HIMSS in Atlanta, GA on Monday, March 2, 2010. Over 60 ANIA-CARING members and friends were welcomed by Lawson staff. Attendees enjoyed a delicious array of desserts and beverages.



 HIMSS reception: Sponsored by Lawson who provided food

**Susan K. Newbold** organized the event where members could drop in, network and grab a snack.



 ANIA-CARING Reception at HIMSS Sponsored by Lawson.
 L to R, Patricia Hinton-Walker, Susan K. Newbold, Karen S. Martin, and Sue Moorhead.

Congratulations to **Giles** and Kimberly **Lippard**, Hendersonville, TN whose baby, Grant, was born December 2009.

Please send items for future newsletters to: Susan K. Newbold, sknewbold@comcast.net

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thus providing the clinician with the most up to date information regarding what care needs to be provided to the patient. Worklists can also contain reminders activities that need to be completed to prevent errors of omission. They can also help to alert the next shift clinicians to interventions that have not been completed and that still need to be completed for the patient. Another benefit of worklists is that a task can automatically create a charge when it's completed thus eliminating the need to also enter charges on the patient. Some clinical systems are also able to help a clinician to document the patient's response to the intervention by directly linking to a clinical documentation form to the task so they can complete the documentation more easily.

If updated real time, a worklist shows a comprehensive up-to-theminute view on the patient at the point of care; that is, one place to look in all of interventions the patient needs that day. By having an up-todate view of the patient's expected orders and treatments, physicians and other care givers can reduce redundant care and better prioritize treatments to help reduce length of stay. Worklists can also help to communicate more effectively with other clinical team members. By looking online at the same worklist, anyone can see what has been completed for the patient and what still needs to be completed for the patient. Worklists can also help clinicians document more efficiently and accurately as well as with greater prevalence because the information they are documented is directly related to the plan of care for that patient.

Worklists if designed carefully can assist the clinician to provide better care for a patient. Worklists should not, however, replace clinical knowledge, clinical judgment or simple common sense. They should instead be used as a supplement or support tool to help the clinician better organize and provide care more efficiently.

Worklists should not replace clinical knowledge, clinical judgment or simple common sense - they should be used as a supplement or support tool to help

#### User Buy-in of Worklists

Nurses, however, have not embraced the use of worklists. One reason that nurses have not embraced worklists is that they believe worklists support the view of a task oriented to-do list of care, rather than an individualized approach to care. Worklists, however, are intended to help organize the care that the patient needs to help the nurse focus on in improving outcomes rather than managing tasks that need to be done. A worklist can help the clinician better prioritize care based on the interventions needed throughout the shift and thus reduce the potential for errors of omission. Creating worklists with a focus on improving outcomes rather than collecting every aspect of care will help to improve clinician buy-in.

Getting nurses to use a worklist is also a struggle since electronic worklists standardizes the view of the interventions. When using an electronic worklist, everyone needs to use it in essentially the same way. The clinician must change their thought process from 'my list' of things to do and move to the thought that the worklist is a list of things that need to be done for the patient. The tasks on the worklist are specific to the patient's needs and care that is ordered. Nurses cannot really individualize these worklists for themselves; they are instead individualized for the patient and problems the patient has. This often makes it difficult for nurses to embrace worklists because they have to learn a new methodology rather than use their own paper-based organization. In order to get nurses to see the worklist as a useful tool, clinicians need to be part of the design. Collecting paper copies of their daily to-do lists can help determine what they feel is necessary for documentation or reminders for them. In addition, different clinicians want different views of the patient orders and treatments. Where possible, discipline specific worklists for key disciplines will improve adoption.

A third reason clinicians have not embraced worklists is to the number of tasks and reminders. Often when worklists were implemented, every possible task and reminder was created. Clinicians felt they were spending more time documenting the tasks than providing care. Careful consideration for defining which tasks will assist the clinician to optimize care and will help clinicians embrace the use of worklists.

As facilities embark on implementing a clinical system that will provide this functionality, they should use all of the "lessons learned" by those of us who have, by trial and error, come to the realization that there can be too many tasks on a worklist. Typically, the initial plan is to make everything a task. This, however, will only create a worklist that becomes overwhelming to the clinician. The appropriate balance of which physician orders, standards of care, clinical interventions and regulatory requirements need to be associated with one or more tasks is the most difficult objective to achieve.

#### Worklists: Helping to Transform Nursing Care

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To accomplish this, it is critical that the functionality and options offered by the vendor is understood. This information can assist clinicians to make meaningful decisions as to what is to become a task on a worklist. Once the functionality is thoroughly understood, clinicians should define what tasks would be of benefit to them to see on a worklist. Next, clinicians need to understand the system's functionality as much as possible; they will quickly learn what can and cannot be done and be better equipped to identify what things should become tasks. Risk Managers and the Quality Department should also be included to determine how worklists can best support clinical care and quality.

The more that clinicians are included the design of tasks and the worklist the greater their adoption will be. Involve clinicians as early as possible in the design and continue including them even after the functionality is live and in use. Worklists will evolve as clinicians continue to use the system and determine what is valuable to their care. Often beginning with a comprehensive worklist for PCTS and/ or other clinicians such as Respiratory Therapy to help communicate direct inpatient care needs can help nurses understand the value of a worklist.

Once a clinical system including a worklist is implemented, clinicians should be queried to determine if this tool is providing them with the information that they need in order to plan and manage their daily care. Ask clinicians what is or is not working for them. Ask which tasks would they want to see added or which tasks are nuisances or meaningless to them. This will help prevent stagnation and misuse of worklists and help improve quality. Electronic worklists, just like the paper kardex can quickly become outdated if not maintained and updated on a regular basis.

#### **Summary**

Now that clinical systems have evolved to the point that worklist / tasklist functionality has become a standard part of most products it has become essential that this feature is designed to be a useful tool; not something that is going to be yet another documentation component that must be completed. Careful thought must be given to identifying all of the physician orders, clinical standards of care, clinical interventions and regulatory requirements that potentially can have tasks and determine the ones that best support practice. Having too many tasks can create a situation that is called 'task fatigue'; which will not assist clinicians to prioritize their care. Involving clinicians in the design and ongoing evaluation of tasklists will help create a worklist that clinicians will embrace.

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## Kindling the Fire for Writing

Elizabeth C. Elkind, PhD, MSN, MBA, RNC-OB Denise Tyler, MSN/MBA, RN-BC

ast academic writing experiences may not have left fond memories, so why bring back those thoughts of it again? Writing is critical to the sharing of information. This sharing promotes the exchange of ideas along with potential for further development. As nursing informatics continues to evolve and move forward, evidence (data) is critical for driving change in practice, policy, and education (Burns & Grove, 2008). However, the evidencebase does not only stem from major or minor funded research investigation. Step back and assess what you are doing in practice because there may be initiatives that fit into a case study or action research. This is an opportunity to collaborate and communicate findings to your nursing peers. Consider it a new adventure that will differ from the past.

## Breaking Down Potential Writing Obstacles

Obstacles to writing can take on a wide variety of things for individuals and is a process that evolves over time. Two common hindrances to the process are the scholarly writing style and word processing formatting, but these are essential components. The Publication Manual of the American Psychological Association (APA) (2009) is now in its sixth edition and is frequently used in nursing and the social sciences. Use the APA Manual as a guide in the writing process. Chapter two of the APA Manual focuses upon structure and content that presents all of the elements of a manuscript. This chapter also contains a sample paper that is a helpful tool to use as a model. If struggling with the manual and in need of more visual assistance, there are also numerous web links available. However, web

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sources will require evaluation for accuracy of information. A few helpful links have been provided in Table 1: APA 6th Edition Manual and Table 2: Microsoft<sup>®</sup> Word and Formatting for APA.

#### Table 1

APA 6th Edition Manual Web Resources their passion. This is excellent advice and a good way to start developing a paper. One good way to start is by listing your accomplishments and experiences that may provide topics which others may learn from. Did you use any tools that would help others? Did you do, or participate in any studies that others can learn from or replicate? What lessons did you learn that you can share with others to help them avoid problems, or replicate positive outcomes? Can you find any literature that relates to your story that can enhance or support what you are trying to communicate?

When writing, an important concept to remember is that references should be

American Psychological Association: APA Style (Note: What's New in the Sixth Edition of the Publication Manual? Tutorials sub-menu on this page with direct links to them.) http://www.apastyle.org/manual/index.aspx

Purdue Online Writing Lab: APA (Note: There is a sample paper link that explains the style throughout it. A PowerPoint presentation about the 6th edition and lots of other helpful links.) http://owl.english.purdue.edu/owl/resource/560/15/

APA Style & Format (YouTube) http://www.youtube.com/watch?v=7HsYUA-helk&NR=1

### Table 2

Microsoft<sup>®</sup> Word Formatting for APA Web Resources

Writing does not have to a solo

Start your paper in the way you are most comfortable. Many people recommend starting with an outline for a good reason. An outline is a good way to organize your paper, for you when you are writing and for your readers. Learn to

Microsoft<sup>®</sup> Word 2007 APA Basics (YouTube): http://www.youtube.com/watch?v=9pbUoNa5tyY

APA Citation Format With Microsoft® Word 'o<sub>3</sub> - Research & Term Paper, Part 2 (Note: This is based on the 5th edition but a good resources for formatting with Word 2003. Just update with APA 6th edition changes.)

http://www.youtube.com/watch?v=Y-pKQp4aBOo&feature=related

of interest. Filing can be by topic, author, publication or any other method that works for you. Creating a spreadsheet to make notes about each article and reference can really save time. st comfortable. Many people good reason. An outline is a good way to writing and for your readers. Learn to

use the tools provided with your word processing program for formatting, not just checking the spelling and grammar. Read your paper out loud, this is a much better way to proof than "just reading". Find a friend or colleague to proof it as well, it is easy to miss the "obvious" in your own project!

valid and cited correctly. This

investigation or research can be

interesting and rewarding. Develop a

filing system to help you save articles

Most of all tell your story; what would you have done differently, what did you do that was

fun and interesting, what made you smile? What did you do that you would never do again? Share it! People enjoy learning about different methods, different timelines, and different ways of doing things. Remember that writing, like presenting is a way to share with your peers and colleagues and to provoke questions and dialog. Do not stress and obsess over your paper so that you never share it.

The ANIA-CARING newsletter is an excellent place to start. It is peer reviewed and the newsletter team provides constructive feedback. Our members represent all areas of Informatics practice, so wider ranges of styles and topics are appropriate and welcome. What have you done that you are passionate about that you want to share? If you have a topic you would like to write about, or a topic you want to learn more about, or someone you know who has a good story that you would like to see published, email secretary@ania-caring.org with you ideas or request.

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quest. Instead, think about a team effort along with an assessment of the available resources to utilize for it. Involve colleagues that have common interests and collaborate on your first paper. One of the reasons panels are so popular with audiences is that they can provide different perspectives, different ways of saying things and different styles on a similar topic, or theme. They are popular with panelists because it is not a solo journey, and offers the opportunity to work with peers.

To start, make a list of your experiences that might be of interest to others. Wollen & Fairweather (2007) encourage authors to focus on their experiences, their expertise, and

## **President's Message: Career Paths to Clinical Informatics**

Victoria M. Bradley RN, DNP, FHIMSS

With the increasing number of major health information technology (HIT) initiatives many are wondering where they will find the skilled workforce to successfully implement and achieve meaningful use. At our first ANIA-CARING regional networking event in January a major theme was how can I prepare to be selected for a job in HIT? Fostering expertise in informatics is one of the major purposes of ANIA-CARING<sup>TM</sup>. This month we are sharing how some of the board members became involved in informatics to give you some ideas for your career path.

The three strategies that were instrumental in my informatics career path are HIT experience, networking, and education. The following are short stories highlighting how these strategies played a major role in my early transition from a clinician leader to informatician.

#### Experience

As a Director of a busy emergency department/trauma center in the early 90's we had issues with patient boarding, and long ED lengths of stay (LOS) - sound familiar? We needed a better system than the current white board to communicate patient status and "what needs to be done next?" Also I desperately needed data to determine what was really causing long LOS and where to focus our efforts. Was it related to slow turnaround of radiology, lab, consults, or what? We struggled with data collection: we asked staff to collect data, we asked charge nurses to collect data, and we hired medical students. Much time was spent doing these studies, trying to get enough data to understand causes and generate solutions. Each time we presented a proposal for additional resources, administration would question and/or want more data before they would approve.

A patient tracking system was needed to facilitate patient flow and to provide ongoing data to make departmental strategic decisions. We evaluated the various vendor applications and found them lacking. Our IT staff met someone at a user conference who agreed to share code from a system they built and we decided we would configure our own in the current registration and order entry system. Long story short I became the project lead and worked closely with IT staff to create an ED tracking system with many reports that was in place for 14 years. It was a big scary leap to move from a director position to a project lead position but I gained invaluable beginning knowledge and skills in system selection, design, implementation, report writing, evaluation. On future projects that were not as successful, I was able to appreciate how active participation of an interdisciplinary team, an integrated system and administrative support contributed to the success of my first IT project.

#### **Networking and Education**

At the suggestion of an HIT colleague I attended a conference called "Project World"<sup>1</sup>. I discovered a whole new discipline of project management (PM) with its own curriculum, certification, education and consultants. While the nursing process and Kurt Lewin's change theory (unfreeze, change, freeze) worked well with the ED project I knew I needed something more robust for implementing CPOE in early 2000. I was so impressed with the keynote speaker, Doug DeCarlo<sup>2</sup>, that I followed him back to his booth. I entered their drawing for a free Project Management Class and I won! But it was in Connecticut and I was in Kentucky. I really wanted to attend, so I used my vacation and frequent flyer miles. Do not think this one class made me into a PM expert. I invited Doug to UK to present a workshop to the entire CPOE team which gave us a robust foundation for leading this project to a successful implementation. Initiating and

maintaining professional relationships has repeatedly added to my repertoire of knowledge and skills. Also the importance of looking outside of our discipline to find experiences and research that can be applied in healthcare.

As with PM, informatics has its own body of knowledge. As I did not receive informatics education in undergraduate or graduate school I obtained it through primarily through HIMSS conferences<sup>3</sup> (This was before I was aware of ANIA and CARING of course). Again, an IT colleague encouraged me to join. Our CIO supported my membership activities and funded conferences attendance. Invaluable knowledge was gained from attending classes, visiting the booths and networking at receptions and during breaks. As a committee volunteer I became involved in initiatives that increased my understanding of HIT and provided access to experts for advice and consultation.

Networking, continuing education and new experiences have served me well in achieving my career goals. But this is not the only path I would recommend as there are many formal informatics programs that are now available. I hope to hear from you how your networking, education and experiences in ANIA-CARING™ have helped you in the development of your informatics career or contributed to your projects success. If you would like to share "your story" on the ANIA-CARINGTM webpage (in 300 words or less) please send them to Webmaster@ANIA-CARING.org. Current stories are posted on our webpage under Communities - Getting Started.

<sup>2</sup> http://dougdecarlo.com

<sup>1</sup> http://www.iirusa.com/projectworld-info/eventhome.xml

<sup>&</sup>lt;sup>3</sup> http://www.himss.org/ASP/index.asp

## **Book Review**

Reviewed by: Giles Lippard, RN, BSN Irene Joos, Ramona Nelson and Marjorie J. Smith

Introduction to Computers for Healthcare Professionals, fifth edition. Jones and Bartlett Publishers, 2010. 618pp. ISBN 0-7637-6113-3.

ntroduction to computers for *Healthcare Professionals* is the newest edition since 2006, and, as the title implies, provides an excellent basic knowledge of computers. The book begins with an introduction to computer literacy and an overview of computer systems. Chapters three and four discuss the operating systems of computers as well as some of the most common tasks associated with software applications. Chapters five through eight highlight the most common lineup for productivity software. The following three chapters delve into the World Wide Web and its use in communication and distance learning (new to this edition). This is followed by two chapters concerning the critical evaluation of information as well as the safe keeping of electronic data. The final chapter explores the dynamics of healthcare informatics and information systems. At the conclusion of each chapter are well assembled examples and exercises that are representative of what one might expect to see in actual practice.

Also new to this addition is the advent of a companion website. Designed to assist the reader in the comprehension of the book content it is rich in material. It offers numerous learning tools in an interactive, fun environment. The reader can utilize animated flash cards, crossword puzzles or matching exercises to test their knowledge. For the instructor there are test banks, syllabi and power point presentations among others to assist in the classroom environment. The book paired with the companion website provides an excellent format for the establishment of sound knowledge in the learner.

The authors have presented the information in such a manner that each chapter subsequently builds on the previous. The initial chapter, an introduction to computer and information literacy, is assembled well with careful attention to detail in the wording, diagrams and images. One gathers the importance of literacy from the authors and that it will be essential to an in depth understanding of computers and the reader's future success.

As the book progresses the authors provide the reader with an introduction to the computer as a

machine, and how that machine is able to produce what we are so familiar with today. The reader is seamlessly educated about systems ranging from portable (Smartphones) to large room filling mainframe computers. They advance the reader through memory, monitors, printers, input devices and networking and the chapter culminates with a discussion on operating systems and languages.

Throughout the next six chapters the book now moves on from the hardware aspects of computers and into the myriad of software that runs not just healthcare but the industrial and business world as a whole. One would find it extremely difficult to make it through their workday without either seeing the end product of or utilizing the software mentioned in these chapters. Whereas the preceding chapters concerning computer hardware had brief descriptions the authors made a concerted effort to illustrate in detail the complexities of these productive software applications. As is the theme throughout the book these chapters are rich in examples, illustrations and images. The reader garners a true sense of the depth of these programs through extensive exposure both from reading the text and the performance of the examples. As mentioned before the chapters conclude with exercises and assignments indicative of what one might see in healthcare.

In the progression of the book the authors next address the importance of utilizing computers to communicate with the world. This chapter falls back in line with earlier chapters in its abbreviated explanations concerning communication. However, the items discussed in this chapter are of tools quite prevalent in today's society which realistically warrants such brevity. The subsequent chapter delves deeper into communication by addressing the distance learner. This chapter is new to this edition and as the author notes "was written in response to the major changes evolving from the integration of technology into the educational environment" (Joos, Nelson and Smith, 2010). As academia begins to rely more heavily on distance learning it is imperative that the healthcare professional be adept at how this is progressing. Important to this chapter is the fact that it is written from a student perspective, it gives great insight into what one can expect from this medium. Concerns about accreditation, classroom interaction, stress and qualified faculty are competently addressed.

In the final chapters of this book the authors begin to more thoroughly discuss applications of computers in healthcare and focus on information and issues within that realm. The authors stress the importance of critically evaluating information and how to access and use it and provide the reader with a myriad of databases from which to gather information. Once the importance is established they elaborate on how to evaluate the literature effectively. The explanations are quite succinct and the reader gets a basic understanding of what is important, expected and acceptable concerning information. I have always felt that the largest obstacle to general acceptance of computers in healthcare by the public lies in the security and integrity of information. That being said this chapter is comprehensive and first establishes how privacy, confidentiality, security and integrity are defined. They advance on these definitions and further discuss how they are inadvertently or intentionally violated and what measures one can take to help secure their information and data.







## **Book Review**

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In the final chapter the authors discuss healthcare informatics and information systems. Although refreshing to see this addressed in a book of this design I find its discussion sparse. This chapter is what computers in healthcare are, and what is represented here is what the great majority of healthcare professionals will likely interact with regularly. However, the chapter holds to its stated objectives and delivers pertinent information regarding informatics and information systems.

While having a firm understanding of computers and their systems are essential, the earlier chapters of this book almost seem irrelevant. As younger generations enter academia and the professional world they bring with them an inherent knowledge of computers. They typically have a firm grasp of the basics of the computer and its programs and can often deduce, through exposure to previous software, how a new one will work. Conversely, this mentality likely does not hold true for many current healthcare professionals in that even though their exposure to computers is thorough they may lack a firm understanding of the fundamentals of computers and this is where the authors have excelled with this book.

Introduction to computers for healthcare professionals should prove useful as a vital tool in comprehending the basics of our technologically advanced world of healthcare today. The book is successful in making one comfortable with many aspects of computers from the very basics of computer hardware and construction to important programs, the internet and even "netiquette". It furthers this success with well appointed chapters addressing communication, distance learning, security and integrity of data and its evaluation. The book is a thorough conglomeration of essential skills and comprehensions necessary to any professional but more so to those charged with the provision and leadership of healthcare.

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## TIGER UPDATE

The Technology Informatics Guiding Education Reform (TIGER) began as a grass roots initiative as a response to the goal set by the Bush administration in 2004 that every citizen has an electronic health record by 2014. Phase I and II involved creating a vision of what nursing practice will look like in 10 years, along with a 3 year plan to achieve this goal. Over 1500 volunteers participated in 9 collaboratives to achieve the TIGER vision.

TIGER is now working on the third phase of implementation, integrating the TIGER recommendations into the nursing community along with colleagues from all disciplines across the continuum of care, with a focus on creating a Virtual Learning Center and developing another invitational summit.

ANIA and CARING were separate organizations at the time of the first summit, in November of 2006. Both sent representatives to the summit and financially supported the initiative through financial sponsorship. We continue to support the TIGER initiative. We will continue to provide updates on the website and in the newsletter, and are proud to announce that Dr. Patrician Hinton-Walker will be providing an update on Phase III at the ANIA-CARING conference next month.

Please contact Dr. Patricia Hinton Walker at phintonwalker@usuhs.mil if you would like to participate in these activities.

The TIGER Phase II Executive Summary can be accessed at http://www.tigersummit.com

The various collaborative reports can be accessed at http://www.tigersummit.com/Downloads.html

## How I got started in Informatics (Board Stories)

A common question our members ask the board is "how did you get started in Informatics". Here are a few of our stories.

## Jerry Chamberlain

Vice President

began my career in nursing informatics while working as an ICU nurse at Mayo Medical Center, Rochester, MN. As a staff nurse, I was asked to serve on the hospitalwide nursing informatics community due to my experience as a train-thetrainer for an ICU system roll-out. This exposure to the clinical informatics committee provided experience in cross-discipline impacts of information systems and peaked my interest in exploring the discipline further as a next career move. The next two years were spent at the University of Maryland as a student in the masters nursing informatics program. While working as a staff nurse, I also spent time as a research assistant within the informatics department at the school. This triad of staff nurse, student, and research assistant provided valuable insights into multiple areas of practice as well as the issues facing nursing professionals with the roll-out of healthcare information technology.

Upon graduation from the Maryland program, I moved into a role as a business process analyst at Cerner Corporation in Kansas City, MO. This first job offering was a direct result of my exposure to workflow and modeling concepts while a student as well my capstone experience with the Cerner Operating Room Management Application (ORMA) program. Professional contacts and prior exposure were fundamental in making the transition from bedside nurse to information nurse, as "the progression of beginner

#### continued from page 11

to expert re-sets itself with any new knowledge domain."

My career has expanded since starting in that entry role at Cerner. Along the way I exposed myself to new disciplines of knowledge, new leaders within the industry, and grew a professional contact system for informational support. Since starting at Cerner, I have moved up the ranks and now am a Client Results Executive responsible for overseeing the general implementation, strategy, customer relationship, and value measurement for three community hospitals in western Ohio. Our industry is always changing, which makes our field both exciting and challenging, which is why I still enjoy practicing as a nursing informaticist.

#### **Denise Tyler**

Secretary, Editor

s many other informatics nurses, I started as a super user. Initially, this was an unofficial duty, which grew into an official role. I assisted with the implementation of Nursing Diagnosis – on paper, and the educator who acted as our resource was the "Computer Nurse" at that time. She noticed my interest and asked me to back her up for orientation classes on our system. This eventually led to formal training and assistance with building and support for major upgrades, and a place on our first team of staff who looked at clinical systems. Upon hiring a new Chief Informatics Officer, we decided to reconsider our selection, and we formed a second system selection team. I was fortunate to be on this team, and to eventually obtain a full time position in our Information Systems department.

Since then, I have been the project lead for orders, which involves interfacing with nursing, ancillary/support staff and finance. This has been very rewarding. I still love nursing – in fact my daughter is in a nursing program, and love all aspects of informatics, and enjoy sharing that with students by teaching part time, serving on the ANIA-CARING board, and am active in the TIGER initiative.

#### Susan K. Newbold

Membership Chair

was a head nurse at a hospital in Laurel, MD. when I decided to go back to school for my master's degree in nursing and return to direct patient care. At the University of Maryland School of Nursing, I had to do a group project which turned out to be "Computers in Nursing." At the same time, I was working as a nursing supervisor at St. Agnes Hospital in Baltimore, MD. which coincidentally was implementing the IBM Patient Care System. I became known to the director of "Data Processing" as I was going around the hospital taking pictures of anything that looked like a computer for my school presentation. I got the job as the Patient Care System Coordinator although I was always called the "Computer Nurse." When I gave my presentation at school, the outline was created using the first IBM personal computer and printed out on a dot matrix printer.

There were two other hospitals in the area – in VA and Washington, DC. that were also implementing the same IBM system. The coordinators – Susan McDermott and P.J. Hallberg and I would meet at SCAMC and consult with each other on the telephone. In 1982 we formed The Nursing Medical Information System (MIS) Roundtable which later became the Capital Area Roundtable on Informatics in NursinG (CARING

## Lisa Bove

Education Chair

fter a number of years as a critical care clinical nurse specialist, the hospital where I worked decided to select a vendor for orders and results (yes, before that we did everything on paper and our interface was the 'sneaker net'!). I was a member of the selection committee, then a super user and trainer and really saw the benefits of using computers in healthcare. I then moved into a clinical analyst position and managed the OR, Materials Management, and Physician applications and helped to train clinicians and physicians on both clinical and general Windows applications. While in this position, I learned a lot about the basics – interfaces, printer set-up, and security. I also spent a lot of time interacting with users and helping to describe users' needs to my technicallyminded co-workers.

After two years in that role, I started at a vendor first as a trainer, then as a project manager. During this role, I learned a lot about working with programmers to help define requirements as well as testing new software. In addition, as a project manager for numerous implementations, I got to work with clinicians and IT folks in hospitals across the country. I then moved into a consulting role where I help to optimize the use of advanced clinical applications like EMAR, CPOE and clinical documentation.

I look forward to continuing to help nurses and other clinicians and physicians use advanced clinical applications to improve patient care.

#### How I got started in Informatics (Board Story)

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#### James Finley, MBA, RN-BC

**Education Chair** 

When I was in nursing school, I had envisioned my career would be in Nursing and Hospital Administration. I never imagined that I would be a Nurse Informtaticist. I was a unit clerk on an orthopedic unit all during my college years while I was doing my BSN, and my Nurse Manager asked if I'd like to do a special project over the summer break helping with my hospitals very first implementation of an order entry system (which was Siemens). I jumped at the chance because it meant a full time paycheck for three months, but had no idea what I was getting myself into. I enjoyed the experience and liked how 'logical' and 'organized' the design of the system was.

When I was a Director of Nursing, I was the Executive Sponsor of my hospital's first implementation of a clinical documentation system. I enjoyed this role and got very involved with the design of the screens and the nursing workflow. At the conclusion of the project the vendor asked if I'd like to work for them as a project manager, and again, had no idea what that meant, but I thought I'd enjoy it and learn a lot and utilize my love of nursing.

Well twenty-five years later, I am a devoted Nurse Informaticist. I've worked for vendors and for consulting firms, and I enjoy the work with hospitals and clients doing implementations, long term strategy, system design, and managing IS departments. It is a great career and I rely on my nursing and informatics knowledge every day. It is a wonderful niche to be in.

#### **Brian Norris**

**Regional Director, Region II** 

started in nursing informatics like I am sure many of our membership did, though an Electronic Medical Record (EMR) implementation project. The organization I was working for at the time set out to enhance their current use of EMR technology, particularly clinical documentation and eMAR in the Intensive Care setting. They set out to find a nursing informatics coordinator. This position and concept was new to me, however given I was an ICU nurse and techno geek, I thought what a cool job, and took the position. Now, at that time I had no clue what informatics nursing was nor did I know the journey I was about to begin and continue today. In this role I was able to get involved in all aspects of an EMR implementation, particularly the design and build an online education program. I was introduced to how informaticists guided strategic direction and IT strategies and was certainly a great introduction to informatics. Today, I work as a consultant with healthcare organizations across the country. I have had the opportunity to see how organizations are tackling tough Health IT strategies and implementations. In addition to my consulting role, I have had the honor last to serve as board member for the American Nursing Informatics Association and now ANIA-CARING. In this HITECH act age, nursing informaticists are more important now than ever, to ensure that the systems we implement meet the objectives of enhancing patient safety, improving care coordination, and communication. I look forward to the challenges and opportunities ahead for our profession.



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## **2010 Annual Conference**

Re-Evolution in Nursing Informatics

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